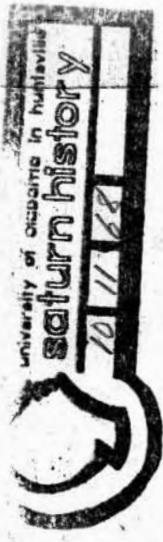


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APOLLO NEWS CENTER
HOUSTON, TEXAS

APOLLO 7 MISSION COMMENTARY
OCTOBER LL, L968

SATURN HISTORY DOCUMENT
University of Alabama Research Institute
History of Science & Technology Group
Date Doc. No.

KING THIS IS APOLLO/SATURN LAUNCH CONTROL AT T-2 HOURS AND COUNTING, T-2 HOURS COUNTDOWN PROCEEDING SATISFACTORILY. THE APOLLO 7 PRIME CREW ABOARD THE SPACECRAFT, GOING THROUGH SOME CHECKS, PRIMARILY OF THEIR SUIT LOOP, THE ENVIRONMENTAL CONTROL SYSTEM THAT THEY HAVE BEEN TIED INTO NOW ABOARD THE APOLLO 7. THE SP-HATCH REMAINS OPEN. IT IS DUE TO BE CLOSED ACCORDING TO COUNTDOWN ABOUT 10 MINUTES FROM THIS TIME. A SHORT WHILE AFTER THE HATCH IS CLOSED AND THE CABIN ITSELF PRESSURIZED WITH A COMBINATION OF 60 PERCENT OXYGEN AND 40 PERCENT NITROGEN, USED FOR ON THE GROUND, WE WILL GO THROUGH SOME LEAK CHECKS AND THEN THE COMMANDER WILL PROCEED INTO THE SUPPORT ADVISORY SYSTEM CHECK. IN THE MEANTIME, WE ARE IN THE BLOCK HOUSE, ALTHOUGH THE ELEMENTS OF THE MISSION ARE GOING AS WELL AS THE CREW IS DOING ABOARD THE SPACECRAFT AT THIS TIME. WE SPENT SOME 2 AND 1/2 HOURS BRINGING THE PROPELLANTS ABOARD THE SATURN IB LAUNCH VEHICLE EARLIER THIS MORNING, STARTING AT 5 AM WHEN WE RESUMED OUR COUNTDOWN AT T-6 HOURS. WE BROUGHT THE LIQUID OXYGEN ABOARD BOTH STAGES AND THEN THE LIQUID HYDROGEN, SOME 67,000 GALLONS OF LIQUID HYDROGEN WILL GO OUT OF THE SECOND STAGE A LITTLE LATER IN THE COUNT. FOLLOWING THE PROPELLANT LOADING, THE CLOSEOUT CREW ATTEND THAT INTO THE SPACECRAFT AREA AND COMMAND MODULE PILOT, BACKUP COMMAND MODULE PILOT JOHN YOUNG, STILL ABOARD THE SPACECRAFT TO PERFORM SOME FINAL CHECKS. THE PRIME CREW ARRIVED ON TIME AND ARE NOW ABOARD. ALL OUR CHECKS OF THE MISSION STILL GOING WELL AND NO FURTHER REPORTS ON OUR WIND CONDITIONS, THEY REMAIN THE SAME AS FORECAST EARLIER AND WE WILL CONTINUE TO TAKE A HARD LOOK AT THE WIND SITUATION, THE ONE QUESTIONABLE FACTOR IN THE COUNTDOWN AT THIS TIME. T - 1 HOUR 58 MINUTES AND COUNTING, THIS IS LAUNCH CONTROL.

END OF TAPE

KING THIS IS APOLLO SATURN LAUNCH CONTROL T MINUS 1 HOURS 49 MINUTES 58 SECONDS AND COUNTING. WE ARE CONTINUING AT THIS TIME. THE THREE PILOTS ARE IN THE APOLLO 7 SPACECRAFT NOW CHECKING OUT SOME MAJOR SYSTEMS OF THE SPACECRAFT WITH THE SPACECRAFT TEST CONDUCTOR. NOW THAT THEY ARE ABOARD AND RESTRAINED INTO THEIR SEATS WE HAVE BROUGHT SOME FINAL CHECKS OF THE SUIT LOOP INTO PLAY. WE HAVE BEEN CHECKING THE FLOW OF THE OXYGEN TO THE SPACE SUITS ON THE THREE PILOTS AND THEY APPEAR TO BE SATISFACTORY AT THIS TIME. IN ADDITION TO THIS, THE COMMAND MODULE PILOT DONN EISELE MADE SOME PRELIMINARY CHECKS WITH THE SPACECRAFT TEST CONDUCTOR AND HIS TEAM ARE CONCERNED WITH THE GUIDANCE AND NAVIGATION SYSTEM, AND JUST A MATTER OF SECONDS AGO THE COMMANDER, WALLY SCHIRRA, BEGAN A SERIES OF CHECKS OF THE ABORT ADVISORY SYSTEM. THESE ARE THE CUES THAT HE RECEIVES IN THE SPACECRAFT, A SERIES OF LIGHTS ON PANELS INDICATING MALFUNCTIONS. HE WILL MAKE A JUDGEMENT BASED ON THESE READOUTS PLUS CUES HE RECEIVES FROM THE GROUND TO MAKE A DECISION ON WHETHER AN ABORT WOULD BE REQUIRED, AND HE WOULD TAKE THE ACTION IF NECESSARY. AT THIS TIME, THE LAUNCH OPERATION MANAGER, PAUL DONNELLY, HERE IN THE BLOCK HOUSE, IS SENDING A SERIES OF CUES TO THE SPACECRAFT IN A TEST OF THE SYSTEM. THE COMMANDER, WALTER SCHIRRA, IS RESPONDING TO THESE ABORT CUES BY CONFIRMING LIGHTS GOING ON AND OFF IN THE CONSOLE TO HIS LEFT FRONT. OUR CHECKOUT CONTINUING, IN THE MEANTIME WITH THE LAUNCH VEHICLE, THE PROPELLANTS ARE STILL RELATIVELY STABLE. WE ARE RUNNING A FEW COMPUTER PROGRAM RUNS WITH THE INSTRUMENT UNIT ABOVE THE TWO STAGES OF THE LAUNCH VEHICLE. THESE COMPUTER TESTS, USING THE AUTOMATION SYSTEM WE HAVE AT THE PAD, CONTINUE THROUGHOUT MOST OF THE COUNTDOWN. ALL PROCEEDING SATISFACTORILY AT THIS TIME, WEATHER CONDITIONS ARE STILL THE SAME WITH THE FORCAST OF SURFACE WINDS 11 TO 16 KNOTS IN THE LAUNCH AREA AT LAUNCH TIME, WHICH IS PLANNED FOR 11:00 A.M. EASTERN DAYLIGHT TIME. THE WINDS APPEAR TO BE MARGINAL. WE'LL BE KEEPING A CLOSE EYE ON THEM AS WE CONTINUE DOWN IN THE COUNT. THE LAUNCH DIRECTOR IS RECEIVING REPORTS ON WIND PROFILES FROM HOUSTON FLIGHT AT THE MANNED SPACECRAFT CENTER, THE CONTROL CENTER IN HOUSTON. SO WE'LL BE KEEPING A CLOSE EYE ON THIS. OTHER ASPECTS OF WEATHER APPEAR TO BE GREAT. THE CHECKOUT CONTINUING AT T MINUS 1 HOURS 47 MINUTES 25 SECONDS AND COUNTING. THIS IS LAUNCH CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, 0815 CDT

3/1

THIS IS APOLLO SATURN LAUNCH CONTROL AT T MINUS 1 HOUR, 44 MINUTES IN COUNTING. JUST ABOUT A MINUTE AGO THE HATCH WAS CLOSED ON THE APOLLO 7 SPACECRAFT. WE HAVE IT LOGGED AT 15 MINUTES AND 30 SECONDS AFTER THE HOUR; THE HATCH WAS CLOSED AND SECURED ON THE APOLLO 7 SPACECRAFT. THE SUPPORT CREW IS STILL IN THE WHITE ROOM AT THE 220 FOOT LEVEL. THEY'LL BE STANDING BY AS WE PRESSURIZE THE SPACECRAFT TO KEEP AN EYE ON THE PROGRESS OF PRESSURIZATION USING THAT 60-40 ATMOSPHERE, THAT IS 60 PERCENT OXYGEN AND 40 PERCENT NITROGEN IN THE SPACECRAFT CABIN ON THE GROUND. THE ASTRONAUTS OF COURSE IN THEIR SUIT LOOP ARE CHECKING OXYGEN DIRECTLY INTO THEIR PRESSURIZED SUITS. THE COUNTDOWN IS CONTINUING TO GO SATISFACTORILY AT T MINUS 1 HOUR, 43 MINUTES, 8 SECONDS AND COUNTING.

END OF TAPE

KING THIS IS APOLLO SATURN LAUNCH CONTROL AT T-1 HOUR, 39 MINUTES AND COUNTING. ONE HOUR, 39 MINUTES AND COUNTING AND WE ARE CONTINUING WITH THE APOLLO SATURN COUNT AT THIS TIME. THE ASTRONAUTS ARE ABOARD THE SPACECRAFT, WITH THE HATCH CLOSED AND WE'RE STARTING THE PRESSURIZATION OF THE CABIN WITH THE 60/40 COMBINATION ATMOSPHERE, THAT IS 60 PERCENT OXYGEN AND 40 PERCENT NITROGEN. THE ASTRONAUTS IN THEIR SPACESUITS RECEIVING OXYGEN DIRECTLY THROUGH THE SUIT CIRCUIT AT THIS TIME WITH THE HELMETS DOWN. OUR WEATHER CONDITIONS REMAIN THE SAME AS EARLIER FORECAST. THE FORECAST FOR THE CAPE KENNEDY AREA AT LAUNCH TIME, 1100 AM EDT HERE AT THE CAPE CALLS FOR PARTLY CLOUDY TO OCCASIONALLY CLOUDY IN SHOWERS, THESE ARE THE CONDITIONS. THE WINDS ARE FORECAST AS SURFACE WINDS, EAST NORTHEAST SOME 8 TO 16 KNOTS. THIS GETS CLOSE TO OUR PARAMETERS AND WE ARE GOING TO KEEP A CLOSE EYE ON WIND CONDITIONS THROUGHOUT THE REMAINDER OF THE COUNT. TEMPERATURES EXPECTED TO BE 82 DEGREES AND WE WILL HAVE SEVERAL CLOUD LAYERS IN THE AREA, SOME SCATTERED MIDDLE CLOUDS 10 TO 14,000 FEET AND SOME HIGH CIRRUS CLOUDS 30,000 FEET. IF ANY RAIN COMES IN, OF COURSE, WE WILL GET SOME LOW CLOUDS IN THE AREA OF 2800 FEET. AROUND THE REST OF THE WORLD TRACK, THE WEATHER CONDITIONS ARE SATISFACTORY FOR LAUNCH, PARTICULARLY IN THE MAIN CONTINGENCY RECOVERY AREAS. IN THE MID PACIFIC, WE EXPECT PARTLY CLOUDY CONDITIONS, WINDS OF 15 KNOTS, SEA STATE OF 4 FEET. WESTERN PACIFIC, PARTLY CLOUDY, WINDS FROM THE EAST AT 12 KNOTS, SEA STATE OF 4 FEET. CONDITIONS ARE ABOUT THE SAME IN THE WESTERN AND EASTERN ATLANTIC. THE ONE WTHE ASTRONAUTS MIGHT BE ABLE TO OBSERVE ON THEIR FIRST PASS, FOLLOWING A SUCCESSFUL LAUNCH, WOULD BE AS THEY APPROACH THE UNITED STATES COAST ON THE FIRST PASS AS THEY GO OVER BAJA, CALIFORNIA OFF THE WEST COAST. THEY MIGHT BE ABLE TO OBSERVE A SMALL TROPICAL STORM, TROPICAL STORM REBECCA, WHICH IS A SMALL STORM SITTING OVER THE PACIFIC, JUST OFF CENTRAL AMERICA; OTHERWISE, THE WEATHER IS GENERALLY GOOD, CLOUDY CONDITIONS IN THE THREE MAJOR OCEANS, BUT THAT IS THE ONE MAJOR WEATHER CONDITION THAT THEY WOULD BE ABLE TO NOTICE. THE CHECK OUT CONTINUING IN THE SPACECRAFT, AS WELL AS WITH THE CREW HERE IN THE BLOCKHOUSE AND ALL ASPECTS OF THE MISSION ARE STILL GOING WELL AT T-1HOUR, 36 MINUTES, 15 SECONDS AND COUNTING. THIS IS LAUNCH CONTROL.

END OF TAPE

THIS IS APOLLO SATURN LAUNCH CONTROL AT 30 MINUTES PAST THE HOUR AND T MINUS 1 HOUR, 30 MINUTES AND COUNTING. THE CREW ABOARD THE APOLLO 7 SPACECRAFT IS STILL MAKING THE VARIOUS CHECKOUTS OF THEIR CONSOLES AS WE PURGE THE CABIN WITH AN ATMOSPHERE OF 60 PERCENT OXYGEN AND 40 PERCENT NITROGEN. ONCE THE CABIN IS PURGED AND PRESSURIZED, - THE STANDBY CREW, THE SUPPORT CREW, WILL BE READY TO DEPART THE AREA. HOWEVER, WE EXPECT THEY WILL BE IN THERE FOR AT LEAST ANOTHER HOUR STANDING BY AS REQUIRED. THE STANDBY CREW MUST DEPART FROM THE AREA BY THE T MINUS 40 MINUTE MARK IN THE COUNT WHEN WE'RE IN OUR TERMINAL COUNTDOWN. THEY WILL STAND BY IN THE WHITE ROOM FOR QUITE AWHILE YET TO RECHECKS OF THE SPACECRAFT AND TO ASSURE THAT EVERYTHING IS GO AS FAR AS APOLLO 7 IS CONCERNED FROM THE 220 FOOT LEVEL. HERE IN THE BLOCKHOUSE THE CREW CONTINUING TO MONITOR THE STATUS OF THE VARIOUS PROPELLANTS ABOARD THE SATURN 1B LAUNCH VEHICLE, LIQUID OXYGEN AND THE RP1 FUEL IN THE FIRST STAGE AND THE LIQUID OXYGEN AND HYDROGEN FUEL IN THE SECOND STAGE OF THE 1B. WE GET CONTINUING STATUS REPORTS HERE FROM THE PROPELLANT MONITORS AND ALL INDICATIONS ARE THAT THE PROPELLANTS ARE IN A VERY STABLE CONDITION AND ARE GO AT THIS TIME. OF COURSE THROUGHOUT THE WHOLE REMAINDER OF THE COUNTDOWN WE WILL BE REPLENISHING THE SUPPLY OF THE LIQUID OXYGEN AND LIQUID HYDROGEN SINCE THEY ARE CRYOGENIC PROPELLANTS, AND MUST BE MAINTAINED AT AN EXTREMELY LOW TEMPERATURE AS A RESULT THE SUPPLY DOES BOIL OFF AND WE NEED TO REPLENISH IT TO ASSURE THAT WE HAVE A HUNDRED PERCENT LOAD ON WHEN WE'RE READY TO FLY AND THOSE ENGINES IGNITE AT THE 3 SECOND MARK IN THE COUNTDOWN. THE NEXT MAJOR MILESTONE COMING UP IN ABOUT 10 MINUTES WILL BE SOME CHECKS OF THE EMERGENCY DETECTION SYSTEM. THESE ARE CHECKS BETWEEN THE CREW HERE IN THE BLOCKHOUSE, THE SPACECRAFT CREW IN THE MANNED SPACECRAFT OPERATION BUILDING BACK AT THE KENNEDY SPACE CENTER, AND THE APOLLO 7 SPACECRAFT. THE SPACECRAFT COMMANDER WALTER SCHIRRA WILL BE CONDUCTING MOST OF THE OPERATIONS AS FAR AS EDS OR THE EMERGENCY DETECTION SYSTEM, IS CONCERNED FROM THE SPACECRAFT END OF THE TEST. WE'RE NOW AT T MINUS 1 HOUR, 27 MINUTES, 33 SECONDS AND COUNTING. THIS IS LAUNCH CONTROL.

END OF TAPE

KING THIS IS APOLLO SATURN LAUNCH CONTROL AT T MINUS 1 HOUR 20 MINUTES AND COUNTING, AND WE ARE PROCEEDING STILL AIMING TOWARD OUR PLANNED LIFTOFF TIME OF 11:00 A.M. EASTERN DAYLIGHT TIME HERE AT THE CAPE. LAUNCH VEHICLE HERE AT PAD 34 STILL GOING VERY WELL AT THE TIME AS THE CREW CONTINUES TO MONITOR ITS OVER ALL STATUS USING TWO LARGE COMPUTERS, ONE HERE IN THE BLOCK HOUSE AND ONE BENEATH THE LAUNCH VEHICLE ON THE PAD TO KEEP CHECKS ON THE THOUSANDS OF PARAMETERS AND FEEDBACKS THAT WE GET FROM THE VEHICLE OVER THESE LAST SEVERAL HOURS OF THE COUNT. AT THE 220 FOOT LEVEL ATOP THE PAD, THE PRIME CREW FOR THE MISSION, ASTRONAUTS WALTER SCHIRRA, DONN EISELE AND WALTER CUNNINGHAM, ABOARD THEIR APOLLO 7 SPACECRAFT WITH THE HATCH CLOSED, AND WE HAVE JUST COMPLETED A PURGE OF THE CABIN. THAT IS, BRINGING IN THE 60 PERCENT OXYGEN AND 40 PERCENT NITROGEN ATMOSPHERE INTO THE CABIN. IN THE MEANTIME, HOWEVER, THE CREW MEMBERS THEMSELVES ARE ON THE SUIT CIRCUITS, THAT IS, TAKING IN 100 PERCENT OXYGEN THROUGH THEIR SPACE SUITS. WE'VE COMPLETED THE PURGE AND THE CREW WILL NOW MAKE A SAMPLE OF THE ATMOSPHERE INSIDE THE CABIN AND REPORT BACK ON THE ASPECTS OF THE SAMPLING. THE COUNT DOWN CONTINUING, WEATHER CONDITIONS STILL THE SAME, STILL KEEPING A CLOSE EYE ON THE SURFACE WINDS IN THE AREA, WHICH ARE FORCAST TO BE SOME 11 TO 16 KNOTS FROM THE EAST NORTHEAST AT LAUNCH TIME. NOW AT T MINUS 1 HOUR 18 MINUTES 27 SECONDS AND COUNTING, THIS IS LAUNCH CONTROL.

END OF TAPE

THIS IS APOLLO SATURN LAUNCH CONTROL, T MINUS 1 HOUR, 9 MINUTES AND COUNTING AND WE ARE PROCEEDING WITH THE APOLLO 7 MISSION COUNT. AT THIS TIME IN THE COUNT ASTRONAUT WALLY SCHIRRA IS STILL WORKING ON SEVERAL TESTS WITH THE GROUND CONTROL PEOPLE BOTH HERE IN THE BLOCKHOUSE AND AT THE CONTROL CENTER BACK AT THE MAIN SPACECRAFT OPERATIONS BUILDING AT KSC. THE COMMANDER GAVE US ANOTHER REPORT A SHORT TIME AGO AS HE LOOKED OUT, HE REPORTED, "FROM WHAT I CAN SEE, IT'S BLUE AS A BLUEBIRD OUT THERE." THE CHECKOUT IS CONTINUING; WE HAVE COMPLETED THE CABIN PURGE OF THE APOLLO 7 SPACECRAFT AND SCHIRRA ALSO COMPLETED ABOUT 5 MINUTES AGO A SERIES OF RATHER EXTENSIVE FINAL CHECKS OF THE EMERGENCY DETECTION SYSTEM. THIS IS THE SYSTEM THAT WOULD SEND CUES TO THE SPACECRAFT ATOP THE LAUNCH VEHICLE IN THE EVENT OF ANY TYPE OF MALFUNCTION. WE RAN THROUGH A SERIES OF TESTS LASTING SOME 15 TO 20 MINUTES WITH THE COMMANDER IN THE SPACECRAFT PARTICIPATING WITH THE CREW HERE IN THE BLOCKHOUSE AND AT THE SPACECRAFT CONTROL CENTER. WE ARE NOW IN THE PROCESS OF CALIBRATING THE CUE BALL WHICH IS A SMALL DEVICE ATOP THE LAUNCH ESCAPE TOWER, RIGHT AT THE TOP OF THE BIRD ITSELF. THE CUE BALL IS AN ANGLE OF ATTACK METER THAT READS PRESSURES AND CAN GIVE INPUTS AS FAR AS THE ATTITUDE OF THE ENTIRE SPACE VEHICLE IS CONCERNED DURING THE EARLY PORTIONS OF FLIGHT. THIS CALIBRATION IS GOING ON AT THIS TIME, WE'RE ALSO GETTING SOME READOUTS AND CHECKS OF THE TRACKING BEACONS IN THE INSTRUMENT UNIT OF THE SATURN 1B LAUNCH VEHICLE. THE LARGE C BAND RADAR HERE AT THE CAPE HAS BEEN SENDING SIGNALS TO THESE BEACONS IN THE INSTRUMENT UNIT AND VERIFYING THAT THEY ARE OPERATING SATISFACTORILY. WE ARE STILL GO AT THIS TIME, STILL KEEPING AN EYE ON THE SURFACE WIND CONDITIONS, BUT THE COUNTDOWN IS CONTINUING. T MINUS 1 HOUR, 6 MINUTES, 57 SECONDS AND COUNTING; THIS IS LAUNCH CONTROL.

END OF TAPE

KING THIS IS APOLLO/SATURN LAUNCH CONTROL, T-60 MINUTES AND COUNTING, T-60 AND WE ARE STILL PROCEEDING WITH THE APOLLO 7 COUNT AT THIS TIME. THE SPACECRAFT TEST CONDUCTOR, SKIP CHILTON, STILL MAKING CHECKS WITH SPACECRAFT COMMANDER WALTER SCHIRRA IN THE APOLLO 7 SPACECRAFT AT A 220 FOOT LEVEL HERE AT LAUNCH COMPLEX 34. OUR COUNTDOWN STILL PROGRESSING SATISFACTORILY. WE WILL BE STARTING THE TERMINAL COUNT IN ABOUT 9 AND 1/2 MINUTES FROM THIS TIME. A SHORT WHILE AGO HOUSTON FLIGHT MADE FINAL STATUS CHECK TO SEE IF ALL ELEMENTS WERE READY TO PICK UP THE TERMINAL COUNT AND ALL REPORTED GO. WE WILL MAKE OUR CHECKS HERE SHORTLY AT THE CAPE, BOTH SPACECRAFT AND LAUNCH VEHICLE-WISE TO ASSURE ALL IS IN READINESS FOR THE TERMINAL COUNTDOWN, WHICH WE WILL START AT 50. WE ARE NOW STARTING TO BREAK UP THE WHITE ROOM AT THE 220-FOOT LEVEL. WE HAVE ACTUALLY PULLED SOME OF THE OPENINGS, ALTHOUGH THE WHITE ROOM IS STILL ATTACHED TO THE HATCH, SOME OF THE OPENINGS ARE NOW BEING PULLED AWAY IN PREPARATION FOR REMOVING THE APOLLO ACCESS ARM WHICH WILL COME ABOUT 20 MINUTES FROM THIS TIME. CHECKOUT IS GOING QUITE WELL. WALLY SCHIRRA JUST INFORMED THE SPACECRAFT TEST CONDUCTOR THAT WE ARE A LITTLE BIT AHEAD ON THE COUNT IN THE SPACECRAFT CHECKOUT AT THIS TIME. ALL ASPECTS STILL LOOKING GOOD, THE ONE QUESTION STILL REMAINS, SURFACE WINDS IN THE CAPE KENNEDY AREA. THEY ARE CLOSE TO OUR MARGINAL LIMITS AND WE WILL BE KEEPING A CLOSE EYE ON THEM AS WE GO FURTHER DOWN. ONCE AGAIN, THE REPORTED WEATHER CONDITIONS, THE FORECAST WAS FOR SURFACE WINDS 11 TO 16 KNOTS FROM THE EAST NORTHEAST IN THE CAPE KENNEDY AREA. WE ARE NOW T-58 MINUTES 19 SECONDS IN COUNTING, THIS IS LAUNCH CONTROL.

END OF TAPE

KING THIS IS APOLLO SATURN LAUNCH CONTROL AT T-50 MINUTES AND COUNTING. FIFTY MINUTES AND COUNTING, WE HAVE STARTED OUR TERMINAL COUNTDOWN HERE AT THE 50 MINUTE MARK AND THE COUNTDOWN IS A GO FOR THE APOLLO 7 MISSION. AT THIS POINT IN THE COUNT, THE CAPSULE COMMUNICATOR HERE IN THE BLOCKHOUSE, ASTRONAUT STU ROOSA GOING THROUGH SOME COMMUNICATIONS, CHECKS WITH THE CREW ABOARD APOLLO 7 LOCATED SOME 220 FEET ABOVE THE PAD HERE AT COMPLEX 34. IN THE MEANTIME CHECKS WITH THE LAUNCH VEHICLE STILL CONTINUING TO GO SATISFACTORILY. AS WE COME INTO OUR TERMINAL COUNTDOWN, WE WILL HAVE SOME MAJOR EVENTS COMING UP IN SOME 10 OR 15 MINUTES OR SO. AS THE SUPPORT CREW CLEARS AWAY FROM THE WHITE ROOM, WE WILL BE READY TO PULL BACK THAT APOLLO ACCESS ARM TO A STANDBY POSITION SOME 3 FEET AWAY FROM THE SPACECRAFT. COUNTDOWN STILL PROCEEDING SATISFACTORILY AT 49 MINUTES, 4 SECONDS AND COUNTING. THIS IS LAUNCH CONTROL.

END OF TAPE

KING THIS IS APOLLO SATURN LAUNCH CONTROL AT T MINUS 45 MINUTES AND COUNTING, T MINUS 45, THE COUNT DOWN PROCEEDING SATISFACTORILY. WE'VE BEEN IN OUR FINAL COUNT DOWN FOR APOLLO 7 NOW FOR SOME 19 HOURS SINCE IT PICKED UP YESTERDAY AFTERNOON, AND ALL ASPECTS OF THE MISSION ARE STILL GO. WE'RE STILL KEEPING A CLOSE LOOK ON WEATHER CONDITIONS, PARTICULARLY THE SURFACE WINDS IN THE CAPE KENNEDY AREA. FOLLOWING IS A RECOUNT OF THE ACTIVITIES SINCE WE PICKED UP THE COUNT DOWN EARLY THIS MORNING. WE CAME OUT OF A VULT IN HOLD AT 5:00 A.M. EASTERN DAYLIGHT TIME WITH THE COUNT DOWN AT T MINUS 6 HOURS. WE THEN PROCEEDED TO LOAD THE CRYOGENIC PROPELLANTS, THE LIQUID OXYGEN AND LIQUID NITROGEN, ABOARD THE TWO STAGES OF THE SATURN I LAUNCH VEHICLE. IN TOTAL, WE LOADED CLOSE TO 100 THOUSAND GALLONS OF LIQUID OXYGEN IN TOTAL BETWEEN THE TWO STAGES, AND THEN PROCEEDED TO LOAD SOME 64 THOUSAND GALLONS OF HYDROGEN ABOARD THE SECOND STAGE. FOLLOWING THAT OPERATION, WE WERE ABLE TO BEGIN OUR CLOSE OUT CREW CHECK IN TO PREPARE FOR THE ASTRONAUT'S ARRIVAL. THE PRIME CREW, ASTRONAUTS WALLY SCHIRRA, DONN EISELE, AND WALTER CUNNINGHAM, WERE AWAKENED PER THE ASTRONAUT COUNT DOWN AT 6:00 A.M. EASTERN DAYLIGHT TIME THIS MORNING. THEY WERE AWAKENED AT THEIR QUARTERS AT THE MANNED SPACECRAFT OPERATIONS BUILDING AT THE KENNEDY SPACE CENTER, SOME 7 MILES FROM THE LAUNCH PAD. THEY THEN WENT DOWN THE HALL TO A MEDICAL EXAMINING ROOM WHERE THEY TOOK A BRIEF PHYSICAL EXAMINATION, GIVEN BY DOCTORS JERRY JOYNER AND JOHN TEEGAN. FOLLOWING THE PHYSICAL, DR. JOYNER SAID THE ASTRONAUT'S PHYSICAL EXAMS WERE WITHIN NORMAL LIMITS, AND THAT THEY ARE READY TO GO. THE CREW THEN SAT DOWN FOR BREAKFAST. THE MENU WAS STEAK AND EGGS, ORANGE JUICE, TOAST AND COFFEE. THEY HAD A NUMBER OF GUESTS AT BREAKFAST THIS MORNING, AND THESE GUESTS INCLUDED MR. JAMES WE, THE FORMER ADMINISTRATOR OF THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, MR. JOHN HEALY FROM NORTH AMERICAN ROCKWELL, MR. FRED PETERS, WHO HAS BEEN NASA REPRESENTATIVE AT NORTH AMERICAN ON THE WEST COAST, MR. KEN KLEINKNECHT, WHO IS DEPUTY AT THE MANNED SPACECRAFT CENTER IN HOUSTON, DEPUTY FOR COMMAND SERVICE MODULE OPERATIONS UNDER THE APOLLO PROGRAM OFFICE. TWO OF THE SUPPORT CREW ASTRONAUTS WHO HAVE BEEN WORKING SO CLOSE WITH THE APOLLO 7 CREW FOR THESE MANY MONTHS ALSO WERE AT BREAKFAST WITH THE PRIME CREW. THESE WERE ASTRONAUTS RON EVANS AND BILL POGUE. DEKE SLAYTON, DIRECTOR OF FLIGHT CREW OPERATIONS, ALSO JOINING THE CREW FOR BREAKFAST. FOLLOWING BREAKFAST THE CREW PUT ON THEIR SPACE SUITS AND WERE CALLED TO THE PAD AT THE KEY TIME IN THE COUNT DOWN. JUST AS THE COUNT DOWN CALLED FOR ASTRONAUT WALTER SCHIRRA CAME ABOARD THE APOLLO SPACECRAFT AT THE 2 HOUR AND 25 MINUTE MARK IN THE COUNT. AT 10 MINUTE INTERVALS THEREAFTER HE WAS

KING FOLLOWED IN BY FIRST THE LUNAR MODULE PILOT CUNNINGHAM, AND FINALLY Y DONN EISELE, THE MAN WHO HAS THE MIDDLE SEAT IN THE SPACECRAFT WHO CAME ABOARD 10 MINUTES LATER. THE HATCH ON THE SPACECRAFT WAS CLOSED AT 9:15 A.M. THIS MORNING AND THE COUNT HAS BEEN CONTINUING SATISFACTORILY SINCE THAT TIME. THE LATEST WEATHER REPORT WE HAVE FOR THE CAPE KENNEDY AREA AT THIS TIME CALLS FOR SCATTERED CLOUDS AT LAUNCH TIME, WINDS FROM THE EAST 15 TO 18 KNOTS WITH GUSTS TO 22 KNOTS. THE TEMPERATURE IN THE LAUNCH AREA EXPECTED AT 82 DEGREES. FOR A STATUS REPORT WE NOW SWITCH YOU TO THE MISSION CONTROL CENTER IN HOUSTON.

HANEY THIS IS APOLLO CONTROL IN HOUSTON. IT'S A TYPICALLY BEAUTIFUL TEXAS DAY OUT HERE, BLUE SKIES AND ALMOST NO WIND. I KNOW YOU PEOPLE IN FLORIDA WILL APPRECIATE THAT. AROUND THE WORLD IT'S PRETTY MUCH THE SAME. THERE IS SOME WEATHER OUT IN THE PACIFIC, A TYPHOON OUT NEAR JAPAN, WHICH WE WON'T SEE FOR A FEW REVS, AND A NEW TROPICAL STORM KICKING UP OFF AKA, CALIFORNIA. OUR WORLD RANGE OF STATIONS IS IN EXCELLENT CONDITION, ONLY THE MOST MINOR PROBLEMS BEING REPORTED FROM THE 17 HIGH SPEED DATA STATIONS AROUND THE WORLD. THE LAUNCH CONTROL - FLIGHT CONTROL TEAM THAT WILL MANAGE THE EARLY REVOLUTIONS OF THE FLIGHT HAS BEEN ON DUTY HERE IN HOUSTON NOW ABOUT 2 HOURS, AND ALL IN ALL WE LOOK PRETTY GOOD. WALLY SCHIRRA, WHILE JACK KING WAS TALKING, I HEARD HIM OBSERVE AS WE EVACUATED THE FLIGHT ROOM, HE IS STILL WALLY SCHIRRA. HE NOTED THE DEPARTURE OF GUNTER WENDT, THE PAD ROOM - THE WHITE ROOM PAD LEADER, Y REPORTING TO THE CREW THAT GUNTER WENT. AND HE ALSO SUGGESTED THAT GUNTER HAVE A GOOD TRIP DOWN ON THE ELEVATOR. ALL IN ALL AT 39 MINUTES BEFORE LAUNCH WE LOOK GOOD HERE IN HOUSTON.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, 0920 CDT

11/1

THIS IS APOLLO LAUNCH CONTROL AT T MINUS 39 MINUTES AND COUNTING. T MINUS 39 AND WE ARE PROCEEDING. COMING UP IN A FEW MINUTES WILL BE ANOTHER MILESTONE IN THE COUNTDOWN AS WE RETRACK THE APOLLO ACCESS ARM FROM THE SPACECRAFT. UP TO THIS TIME THE ACCESS ARM HAS BEEN ATTACHED EVEN THOUGH THE SPACECRAFT HATCH HAS BEEN CLOSED. THE COUNTDOWN IN THE BLOCKHOUSE CALLS FOR THE ACCESS ARM TO BE PULLED BACK AT THE 33 MINUTE MARK IN THE COUNT. HOWEVER, WHEN THIS DOES OCCUR, WE WILL PULL THE ACCESS ARM SOME 3 FEET AWAY FROM THE SPACECRAFT, 12 DEGREES TO BE EXACT, AND THIS WILL BE A STANDBY POSITION IN THE EVENT IT WAS NECESSARY TO BRING IT BACK TO THE SPACECRAFT RAPIDLY. THE ACCESS ARM WILL NOT BE FULLY RETRACTED TO ITS FALL BACK POSITION ON THE UMBILICAL TOWER UNTIL THE 5 MINUTE MARK IN THE COUNT. COUNTDOWN STILL PROCEEDING AND WEATHER CONDITIONS STILL THE SAME, AND WE ARE STILL KEEPING A CLOSE EYE ON THE SURFACE WINDS AS WE COME UP ON 38 MINUTES AND COUNTING. THIS IS LAUNCH CONTROL.

END OF TAPE

KING THIS IS APOLLO/SATURN LAUNCH CONTROL AT T-33 MINUTES 30 SECONDS AND COUNTING. HOWEVER, WE APPEAR TO HAVE ENCOUNTERED DIFFICULTY, PERHAPS THE FIRST DIFFICULTY IN OUR COUNTDOWN TODAY. IT IS CONCERNED WITH THE ELEVATOR AT THE LAUNCH PAD. THIS IS THE HIGH SPEED ELEVATOR THAT TRAVELS FROM THE BASE OF THE PAD TO THE 220 FOOT LEVEL AND OF COURSE, CARRIES THE CREW AND OTHER SUPPORT PEOPLE UP AND DOWN FROM THE SPACECRAFT LOCATION. THE ELEVATOR APPEARS TO HAVE MALFUNCTIONED AT THIS TIME. WE PLAN TO HOLD 3 MINUTES FROM NOW, THE 30 MINUTE MARK IN THE COUNT AND SEND SEVERAL TECHNICIANS IN TO TAKE A LOOK. IN THE MEANTIME, THE ACCESS ARM REMAINS ATTACHED TO THE APOLLO AND OF COURSE, DIRECTED TOWARD THE HATCH. IN THE EVENT OF AN EMERGENCY CONDITION, WE HAVE THE SLIDE WIRE AVAILABLE RIGHT THERE ON THE UMBILICAL TOWER FOR ESCAPE IF NECESSARY. WE ARE GOING TO HOLD AT THE 30 MINUTE MARK IN THE COUNT AND TAKE A LOOK AT THE ELEVATOR. WE ARE NOW AT T-32 MINUTES 26 SECONDS IN COUNTING, THIS IS LAUNCH CONTROL.

END OF TAPE

THIS IS LAUNCH CONTROL, T MINUS 30 MINUTES
HOWEVER WE ARE COUNTING. T MINUS 30 MINUTES AND COUNTING.
WE HAVE DISCUSSED THE PROBLEM; IT APPEARS THE DIFFICULTY WITH
THE ELEVATOR NOW IS OKAY AND THE COUNTDOWN IS CONTINUING.
IN THE MEANTIME WE HAVE COMPLETED APOLLO TRANSFER WITH THE
SATURN 1B LAUNCH VEHICLE, THAT IS GOING FROM AN EXTERNAL POWER
SOURCE TO THE FLIGHT BATTERIES ABOARD THE VEHICLE AND THEN
RETURNING TO THE EXTERNAL POWER. WE WILL NOT GO TO INTERNAL
POWER FINALLY UNTIL THE 28 SECOND MARK IN THE COUNT. THE
ELEVATOR APPEARS TO BE OKAY AT THIS TIME AND THE COUNTDOWN
IS CONTINUING. WE ARE STANDING BY AT T MINUS 29 MINUTES, 20
SECONDS AND COUNTING. THIS IS LAUNCH CONTROL.

END OF TAPE

KING THIS IS APOLLO/SATURN LAUNCH CONTROL, T-28 MINUTES 14 SECONDS AND COUNTING AND WE ARE PROCEEDING. JUST A MATTER OF SECONDS AGO, THE APOLLO ACCESS ARM, WHICH HAD BEEN CONNECTED TO THE SPACECRAFT AT THE 220 FOOT LEVEL WAS RETRACTED TO A STANDBY POSITION. THIS IS A LOCATION SOME 3 FEET AWAY FROM THE SPACECRAFT. LATER ON IN THE COUNT, ACTUALLY AT T-5 MINUTE MARK, THE ACCESS ARM WILL BE FULLY RETRACTED. THE REMOVAL OF THE ACCESS ARM AT THIS TIME, THE LAUNCH ESCAPE TOWER, ABOUT 155,000 POUND THRUST, LAUNCH ESCAPE TOWER ATOP THE COMMAND MODULE NOW HAS BEEN ARMED. IT IS NOW ACTIVATED AND CAN BE USED IF REQUIRED. OUR STATUS WITH THE ELEVATOR IS AS FOLLOWS: WE UNDERSTAND THAT THE ELEVATOR IS AT THE OTTOM LEVEL OF THE PAD. DISCUSSIONS DURING THE PERIOD INDICATED THAT THIS WOULD NOT BE A HAZARDOUS CONDITION, SINCE WE HAVE THE ESCAPE SYSTEM OPERATING ON THE SPACECRAFT ITSELF AND IN THE EVENT OF TRIPPING THE ACCESS ARM ACK FOR ANY DIFFICULTY WE WOULD HAVE THE SLIDE WIRE AND ALL PROXIMITY, A CAPABILITY OF TRIPPING THE ELEVATOR UP TO THE 220 FOOT LEVEL. SO WE ARE PROCEEDING AND THAT IS OUR STATUS AS WE COME UP ON 27 MINUTES AND COUNTING. MARK T-27 MINUTES AND COUNTING. THIS IS LAUNCH CONTROL.

END OF TAPE

THIS IS APOLLO SATURN LAUNCH CONTROL AT T MINUS 25 MINUTES AND COUNTING. T MINUS 25. WE ARE STANDING BY FOR ANOTHER MILESTONE EVENT HERE AT THE PAD AT THIS TIME. COMING UP SHORTLY WILL BE A CHECK OF THE REACTION CONTROL SYSTEM THRUSTERS ON THE APOLLO 7 SPACECRAFT. THE SPACECRAFT COMMANDER WALLY SCHIRRA IN A FEW MINUTES WILL IN FACT STATIC FIRE SOME OF THESE MODULES IN ORDER TO ASSURE THAT THEY WILL BE OPERATING PROPERLY. THE CREW ABOARD THE SPACECRAFT NOW PRESSURIZING THE REACTION CONTROL SYSTEM IN READINESS BEFORE THE TEST OF THE THRUSTERS THAT WILL BE COMING UP SHORTLY. ALL, STILL ALL ASPECTS GOING WELL WITH THE LAUNCH VEHICLE; WE COMPLETED A KEY POWER TRANSFER TEST AND THE COUNT IS STILL GOING WELL ON THE LAUNCH VEHICLE SIDE. NOW AT T MINUS 24 MINUTES, 12 SECONDS AND COUNTING, THIS IS LAUNCH CONTROL.

END OF TAPE

KING THIS IS APOLLO SATURN LAUNCH CONTROL AT T-21 MINUTES AND COUNTING. T-21, AT THIS TIME THE COMMANDER OF THE APOLLO 7 SPACECRAFT, WALLY SCHIRRA, HAS GONE THROUGH A SERIES OF CHECKS WITH THE REACTION CONTROL SYSTEM ON THE APOLLO 7 SPACECRAFT. WE HAVE A TOTAL OF SOME 16 REACTION CONTROL SYSTEM ENGINES ON THE SERVICE MODULE OF THE APOLLO 7. THEY'RE LOCATED IN FOUR QUADRANTS AROUND THE SERVICE MODULE AND EACH OF THE ENGINES IS CAPABLE OF GENERATING SOME 100 LS. OF THRUST. ASTRONAUT SCHIRRA FIRED THESE THRUSTERS AND THE REPORT FROM THE SPACECRAFT TEST CONDUCTOR IS THE STATIC FIRING WENT VERY WELL. WE ACTUALLY DID FIRE SEVERAL OF THE THRUSTERS DURING THIS TEST AND THE REPORT WAS THAT THE TEST WENT WELL. IN THE MEAN-TIME WE COMPLETED SOME FINAL CHECKS OF THE RANGE SAFETY DESTRUCT SYSTEM ABOARD THE SATURN 1 LAUNCH VEHICLE. THESE ARE CHECKS BETWEEN THE LAUNCH CREW AND THE AIR FORCE EASTERN TEST RANGE. THOSE CHECKS ALSO WENT VERY WELL, AND THE COUNT IS CONTINUING. WE HAVE JUST PASSED THE 20 MINUTE MARK. WE ARE NOW AT T-19 MINUTES, 54 SECONDS AND COUNTING. THIS IS LAUNCH CONTROL.

END OF TAPE

THIS IS APOLLO SATURN LAUNCH CONTROL AT T MINUS 16 MINUTES AND COUNTING. T MINUS 16. WE ARE GO FOR LAUNCH AT THIS TIME. OUR LATEST CHECK ON WEATHER CONDITIONS AND PARTICULARLY SURFACE WINDS IN THE AREA INDICATE THE WINDS ARE GO AT THIS TIME, AT THE 16 MINUTE MARK IN THE COUNT; TO REPEAT, THE WINDS ARE GO FOR LAUNCH. COMING UP SHORTLY THE APOLLO 7 SPACECRAFT WILL GO ON FULL INTERNAL POWER; THIS WILL COME AT THE 15 MINUTE MARK; THIS MEANS WE WILL GO ON THE FULL POWER OF THE THREE FUEL CELLS ABOARD THE APOLLO 7. UP TO THIS TIME THE FUEL CELLS HAVE BEEN SHARING THE LOAD WITH AN EXTERNAL POWER SOURCE. WHEN WE GO INTERNAL WE REMOVE THE EXTERNAL POWER SOURCE FROM THE SPACECRAFT. THIS WILL BE COMING UP SHORTLY; IN THE MEANTIME WE ARE GOING THROUGH FINAL CALIBRATIONS OF THE OVERALL TELEMETRY SYSTEMS, CONCERNED WITH THE SATURN 1 LAUNCH VEHICLE. WE ARE NOW COMING UP IN A MATTER OF SECONDS ON THE 15 MINUTE MARK IN THE COUNT; MARK T MINUS 15 MINUTES AND COUNTING. T MINUS 15. THIS IS LAUNCH CONTROL.

END OF TAPE

KING THIS IS APOLLO/SATURN LAUNCH CONTROL AT T-12 MINUTES AND COUNTING. T-12 AND WE ARE GO FOR THE APOLLO 7 MISSION AT THIS TIME. AT THE FINAL 11 MINUTES OR SO OF THE COUNT, WE WILL HAVE A NUMBER OF MAJOR HIGHLIGHTS, WE WILL HAVE A STATUS REPORT THAT WILL COME IN ABOUT THE 5 MINUTE MARK AND A CHECK OF ALL ASPECTS OF THE MISSION TO ASSURE THAT WE ARE STILL GO AT THAT TIME. THE COMPLETE LAUNCH VEHICLE WILL GO ON A AUTOMATIC SEQUENCE AT THE 2 MINUTE AND 43 SECOND MARK IN THE COUNTDOWN. FROM THAT TIME DOWN, ALL ASPECTS OF THE COUNT WILL BE AUTOMATIC, RUN BY THE COMPUTER SYSTEM MANAGER HERE IN THE LOCK HOUSE AND ALSO MANAGED SPACECRAFT-WISE AT THE CONTROL CENTER AT THE MANNED SPACECRAFT OPERATIONS BUILDING AT KENNEDY SPACE CENTER. COUNTDOWN CONTINUING AT THIS TIME, WE ARE NOW T-11 MINUTES 6 SECONDS AND COUNTING. AS THIS AUTOMATIC SEQUENCER CONTINUES DOWN, WE WILL HAVE A TRANSFER TO INTERNAL POWER WITH THE LAUNCH VEHICLE AT THE 28 SECOND MARK AND THE EIGHT ENGINES IN THE FIRST STAGE OF THE SATURN I B DUE TO IGNITE AT THE 3 SECOND MARK IN THE COUNT. THE ENGINES WILL IGNITE IN TANDEM AND WILL BE UP WITHIN 3/10 OF A SECOND. DURING THOSE REMAINING 3 SECONDS WE BASICALLY WILL CHECK THE THRUST OF THE EIGHT ENGINES TO ASSURE WE HAVE THAT 1.6 MILLION POUNDS OF THRUST DESIRED FOR THE LAUNCH. AT THAT TIME, WHEN WE CLOSE THE VENTS ON THE SATURN I LAUNCH VEHICLE, WE WILL HAVE A VEHICLE ON THE PAD WEIGHING SOME 1.3 MILLIONS POUNDS. NOW APPROACHING THE 10 MINUTE MARK IN THE COUNT, WE ARE T-10 MINUTES 18 SECONDS AND COUNTING. THIS IS LAUNCH CONTROL.

END OF TAPE

KING THIS IS APOLLO SATURN LAUNCH CONTROL. WE'RE AT T-8 MINUTES, 25 SECONDS, AND COUNTING AND WE ARE STILL GO FOR THE APOLLO 7 LAUNCH AT THIS TIME. SPACECRAFT TEST CONDUCTOR SKIP CHILTON GOING THROUGH A FINAL STATUS CHECK WITH HIS SPACECRAFT CREW HERE AT THE KENNEDY SPACE CENTER. IN THE LOCKHOUSE, THE CREW STILL MONITORING THE PERFORMANCE OF THE SATURN 1 VEHICLE AND ALL IS GO FOR THE MISSION AT THIS TIME. HE'S COMPLETING UP THE STATUS REPORT AS WE COMPLETE THE 8 MINUTE MARK. T-8 MINUTES AND COUNTING, T-8 AND WE ARE GO FOR LAUNCH AT THIS TIME. THIS IS LAUNCH CONTROL.

END OF TAPE

KING THIS IS APOLLO SATURN LAUNCH CONTROL AT 6 MINUTES 38 SECONDS AND COUNTING, WE ARE STILL GO FOR LAUNCH AT THIS TIME. ASTRONAUT WALLY SCHIRRA JUST GOT A REPORT THAT HE WAS GO FOR 164 LAPS, HE SAID HE WAS READY TO GO WITHOUT A TIRE CHANGE. THE COUNT STILL PROCEEDING AT THIS TIME. T MINUS 6 MINUTES 20 SECONDS AND COUNTING, HOWEVER, WE JUST HEARD A REPORT OVER THE CIRCUIT WE ARE ASKING FOR A HOLD. WE ARE STANDING Y FOR FURTHER REPORTS. WE ARE NOW AT T MINUS 6 MINUTES 15 SECONDS AND HOLDING, T MINUS 6 15 AND HOLDING. THIS IS LAUNCH CONTROL 6 MINUTES 15 SECONDS AND HOLDING, THE TEST SUPERVISOR ADVISES HE EXPECTS THIS TO BE A VERY BRIEF HOLD. THE REASON IS CONCERNED WITH A CHILL DOWN OF THE ENGINE OF THE SECOND STAGE OF THE SATURN IB LAUNCH VEHICLE. FROM THE 20 MINUTE MARK DOWN WE INTRODUCED GASEOUS HELIUM INTO THE ENGINE CHAMBER OF THE SECOND STAGE TO CONDITION IT FOR THOSE PROPELLANTS THAT WILL COME INTO THE ENGINE CHAMBER DURING FLIGHT. OF COURSE, THE LIQUID OXYGEN IS AT MINUS 297 AND THE LIQUID HYDROGEN AT 423 DEGREES BELOW ZERO. THE REQUEST FOR THE HOLD CAME TO GIVE AN ADDITIONAL SEVERAL MINUTES FOR THE CHILL DOWN. TO REPEAT, WE ARE HOLDING AT 6 MINUTES 15 SECONDS EXPECTING TO RESUME THE COUNT SHORTLY. THIS IS LAUNCH CONTROL STANDING Y.

THIS IS LAUNCH CONTROL. WE ARE HOLDING AT 6 MINUTES 15 SECONDS. LAUNCH VEHICLE TEST CONDUCTOR HAS ADVISED WE EXPECT TO RESUME THE COUNT ABOUT 35 SECONDS FROM THIS TIME. TO REPEAT, THE REASON FOR THE HOLD CONCERNED WITH ADDITIONAL TIME FOR THE CHILL DOWN OF THE SECOND STAGE ENGINE OF THE SATURN IB LAUNCH VEHICLE. WE ARE STANDING Y TO RESUME THE COUNT.

THIS IS LAUNCH CONTROL. WE HAVE JUST RESUMED THE COUNT DOWN NOW AT T MINUS 6 MINUTES AND 8 SECONDS AND COUNTING WE RESUME THE COUNT AT 56 MINUTES PAST THE HOUR. NOW COMING UP ON THE 6 MINUTE MARK, MARK T MINUS 6 MINUTES AND COUNTING. T MINUS 6, WE ARE PROCEEDING. ALL REPORTS ARE THAT WE ARE GO FOR A LAUNCH AT THIS TIME. AT THIS POINT IN THE COUNT DOWN NOW WE WILL BE COMING UP ON THE 5 MINUTE MARK, WE WILL BE READY TO RETRACT THAT APOLLO ACCESS ARM TO ITS FULL RETRACT POSITION. IT HAS BEEN ON A STANDBY POSITION SOME 3 FEET FROM THE COMMAND MODULE UP TO THIS TIME. WE HAVE NOW ARMED THE IGNITION SYSTEM OF THE SATURN IB LAUNCH VEHICLE. THIS MEANS THAT IT CAN NOW RECEIVE THE SIGNALS TO IGNITE THOSE ENGINES AT THE PROPER TIME IN THE COUNT DOWN, WHICH WILL COME AT THE 3 SECOND MARK. WE'LL BE COMING UP ON SOME FINAL STATUS REPORTS AT THIS TIME. T MINUS 5 MINUTES 15 SECONDS AND COUNTING. THE MISSION DIRECTOR, BILL SNYDER, HAS GIVEN A GO FOR THE LAUNCH. COMING UP ON THE 5 MINUTE MARK, MARK 5 MINUTES AND COUNTING, SAYS SUPERVISOR DON PHILLIPS, GIVING A FINAL CALL OF GO/NO-GO

KING TO THE VARIOUS ELEMENTS OF THE MISSION.
WE ARE STANDING BY AS THE REPORTS COME BACK IN.

KING THIS IS APOLLO LAUNCH CONTROL NOW
AT T MINUS 4 MINUTES 7 SECONDS AND COUNTING. SPACECRAFT
TEST CONDUCTOR SKIP CHILTON HAS TOLD COMMANDER WALLY SCHIRRA
"YOU ARE GO FOR THE LAUNCH." SCHIRRA REPORTED THAT ALL
LOOKS GOOD. WE HAVE NOW ARMED THE DESTRUCT SYSTEM OF THE
TWO STAGES OF THE SATURN IB LAUNCH VEHICLE, AND WILL BE
COMING UP ABOUT A MINUTE FROM THIS TIME ON THE AUTOMATIC
SEQUENCER. FROM THAT TIME DOWN WE WILL BE COMPLETELY
AUTOMATIC IN THE LAUNCH VEHICLE. WE ARE NOW AT 3 MINUTES
40 SECONDS AND COUNTING, THIS IS LAUNCH CONTROL.

KING THIS IS APOLLO SATURN LAUNCH CONTROL
COMING UP ON THE 3 MINUTE MARK ON THE COUNT, SEVERAL SECONDS
FROM THIS TIME. MARK 3 MINUTES AND COUNTING, T MINUS 3,
WE ARE CONTINUING. THE ASTRONAUTS IN THE SPACECRAFT HAVING
JUST COMPLETED SOME FINAL CHECKS ON THE GUIDANCE AND NAVI-
GATION SYSTEM. WE ARE NOW AT 2 MINUTES 50 SECONDS, COMING
UP SHORTLY ON THE AUTOMATIC SEQUENCER. THE ASTRONAUT ABORT
ADVISORY SYSTEM IS IN EFFECT AT THIS TIME, THE KEY PEOPLE
HERE AT THE LAUNCH COMPLEX READY TO ADVISE. NOW AT T MINUS
2 MINUTES 35 SECONDS AND COUNTING, IT APPEARS THAT THE
AUTOMATIC SEQUENCER IS IN AT THIS TIME. T MINUS 2 MINUTES
AND 30 SECONDS. AT THIS POINT THE VARIOUS TANKS IN THE
TWO STAGES OF THE SATURN IB VEHICLE ARE STARTING TO
PRESSURIZE. WE PRESSURIZE THESE TANKS WITH HELIUM. THEY
ARE PRESSURIZED, OF COURSE, TO FORCE THE VARIOUS PROPELLANTS
INTO THE ENGINE CHAMBERS FOR THE PROPER IGNITION. THE S1B
FIRST STAGE FUEL TANK IS PRESSURIZED AND THE SECOND STAGE
LIQUID OXYGEN TANK PRESSURIZING AT THIS TIME. NOW COMING
UP ON THE 2 MINUTE MARK, T MINUS 2 MINUTES AND COUNTING,
T MINUS 2. NOT AS MUCH REPORTS NOW ON THE COMMUNICATION
CIRCUITS AS EVERYBODY

END OF TAPE

NOT AS MUCH REPORTS NOW ON THE COMMUNICATIONS CIRCUITS AS EVERYBODY STANDS Y MONITORING THE VARIOUS CONSOLES AND WATCHING THE VARIOUS PARAMETERS TO ASSURE EVERYTHING IS OKAY. T MINUS 1 MINUTE, 43 SECONDS AND COUNTING. WE ARE STILL PROCEEDING. ASTRONAUTS STANDING Y IN THE SPACECRAFT AS WE COME UP ON THE 92 MARK IN OUR COUNTDOWN. MARK T MINUS 90 SECONDS AND COUNTING. T MINUS 90. WE HAVE CONDITIONED THE LIQUID OXYGEN IN THE FIRST STAGE OF THE SATURN LAUNCH VEHICLE, ALL TANKS IN THE TWO STAGES NOW PRESSURIZING. MOST OF THE WORK OVER THESE FINAL SEVERAL MINUTES CONCERN WITH THE LAUNCH VEHICLE DIRECTED Y THE TEST CONDUCTOR, DON CARLSON. ONE MINUTE, 10 SECONDS AND COUNTING. WE ARE STILL GO AT THIS TIME. COMING UP ON 1 MINUTE; MARK T MINUS 60 SECONDS AND COUNTING. WE ARE GO FOR APOLLO 7 AT THIS TIME. T MINUS 50 SECONDS; THE VEHICLE NOW PRESSURIZED AND THE VEHICLE IS GO AS IS THE SPACECRAFT AT THIS TIME. COMING UP ON THE 40 SECOND MARK; T MINUS 40 SECONDS AND COUNTING. T MINUS 40. ALL REPORTS LOOK GOOD FROM HERE IN THE BLOCKHOUSE AT THIS TIME. ALL ASPECTS OF THE MISSION GO; T MINUS 30 SECONDS AND COUNTING. WE'LL GET IGNITION OF THOSE 8 ENGINES IN THE FIRST STAGE AT THE 3 SECOND MARK IN THE COUNTDOWN. NOW AT T MINUS 21 SECONDS AND COUNTING. WE HAVE COMPLETED OUR POWER TRANSFER. THE SATURN 1 LAUNCH VEHICLE, WHICH NOW WEIGHS 1.3 MILLION POUNDS IS READY TO GO; COMING UP ON THE 10 SECOND MARK. 10, 9, 8, 7, 6, 5, 4, 3, 2, WE HAVE IGNITION. COMMIT LIFTOFF; WE HAVE LIFTOFF. THIS IS LAUNCH CONTROL; WE HAVE CLEARED THE TOWER.

HANEY ROGER; TOWER CLEAR. 12 SECONDS OUT AND THE ROLL PROGRAM HAS COMMENCED. 24 SECONDS OUT AND SCHIRRA REPORTS THE PITCH PROGRAM HAS COMMENCED. 40 SECONDS, THE ROLL PROGRAM IS COMPLETE. 55 SECONDS, THE CA6N IS RELIEVING; SCHIRRA REPORTED A LITTLE NOISE. ONE MINUTE. ONE MINUTE 20 SECONDS INTO THE FLIGHT; ALL SYSTEMS GO ON THE GROUND AND IN THE AIR. ONE MINUTE 40 SECONDS. FLIGHT DIRECTOR ASKED THE FLIGHT DYNAMICS OFFICER IF HE LIKES IT, AND HE SAYS, "YES SIR; IT LOOKS GOOD." COMING UP ON 2 MINUTES; MARK 2 MINUTES. WE'RE HAVING A STATUS CHECK; APOLLO 7 HAS EEN GIVEN A GO FOR STAGING. TWO MINUTES, 15 SECONDS. INBOARD ENGINES HAVE SHUT DOWN; OUTBOARD ENGINES HAVE SHUT DOWN; SCHIRRA CALLED BOTH EVENTS. HE'S GOT IGNITION AND HE SAYS WE ARE UP TO THRUST ON THE SECOND STAGE. THE THRUST IS OKAY AT 2 MINUTES 40 SECONDS INTO THE FLIGHT.

SCHIRRA OH, EAUTIFUL. TOWER HAS REALLY JETTISONED.

HANEY WALLY SAYS ALL EAUTIFUL, THAT TOWER HAS REALLY JETTISONED; IT WENT WAY OUT. WE ARE NEAR THE 50 MILE ALTITUDE NOW AND AOUT 60 MILES DOWNRANGE. THREE MINUTES 5 SECONDS INTO THE FLIGHT.

FLIGHT WALLY, YOU'RE LOOKING GOOD.

HANEY SCHIRRA HAS JUST TAGGED UP WITH THE COM
HERE IN HOUSTON; A VERY CLEAN VOICE COMMUNICATION TODAY. THREE
MINUTES, 25 SECONDS INTO THE FLIGHT.

FLIGHT (GARBLE) CHECKS NOW WALLY.
SCHIRRA IT LOOKS OKAY NOW FLIGHT. WE'RE LOOKING
AT IT CLOSELY.

FLIGHT TRAJECTORY AND GUIDANCE ARE GO, APOLLO.
HANEY TRAJECTORY AND GUIDANCE GIVE ANOTHER GO
HERE.

SCHIRRA (GARBLE) LITTLE BUMPY HERE, BUT -
HANEY WALLY SAYS, "A LITTLE BUMPY ON THE SECOND
STAGE; A LITTLE BUMPY, BUT WE CAN'T HEAR ANY COMPLAINTS.
SEVENTY MILES ALTITUDE; AND ABOUT A 120 MILES DOWNRANGE.

SCHIRRA MARK; APOLLO 7 SYSTEMS ARE GO.
FLIGHT LOOKING REAL FINE HERE WALLY.
SCHIRRA GIMBALS ARE TIGHT.
HANEY FOUR MINUTES, 10 SECONDS INTO THE FLIGHT.
SCHIRRA GIMAL CHECKS LOOKS VERY GOOD.
HANEY SCHIRRA SAYS, "THE GIMBAL CHECK LOOKS
VERY GOOD."

SCHIRRA THIS 1G STUFF IS GREAT.
HANEY HIS OBSERVATION IS THE 1G STUFF IS GREAT.
APPARENTLY THE G LOADS WERE QUITE LOW. WE'VE BEEN MONITORING
SCHIRRA'S HEART RATE BECAUSE THAT'S THE ONLY PHYSICAL PARA-
METER WE HAVE COMING THROUGH AND IT, AT LAUNCH, AND THROUGH
THE EARLY STAGES, RAN ABOUT 90 AND 92 BEATS. FOUR MINUTES,
50 SECONDS INTO THE FLIGHT.

SCHIRRA GOOD HERE, FLIGHT.
HANEY FLIGHT DIRECTOR'S POLLING ALL HIS STATIONS
HERE AND IS GETTING ENTHUSIASTIC GO'S AT EVERY CONSOLE. FIVE
MINUTES INTO THE FLIGHT.

EISELE SPACECRAFT GUIDANCE IS GO.
FLIGHT ROGER; YOU'RE LOOKING REAL GOOD.
HANEY AND WE'VE HEARD FROM DON EISELE; REPORTED
THE SPACECRAFT GUIDANCE GO. 90 MILES ALTITUDE NOW. NEARLY
250 MILES DOWNRANGE AT 5 MINUTES AND 25 SECONDS INTO THE
FLIGHT. THE GUIDANCE TRACKS ARE EXACTLY OVERLAYS HERE IN
THE CONTROL CENTER. THAT IS THE PLAN VERSUS THE ACTUAL.

SC LOOKING GOOD FLIGHT.
FLIGHT ALL SYSTEMS STILL LOOKING VERY GOOD AT
HOUSTON.

FLIGHT YOU'RE LOOKING REAL FINE APOLLO 7.
SCHIRRA ROGER; SHE'S RIDING LIKE A DREAM.
HANEY WALLY SAYS SHE'S RIDING LIKE A DREAM
AT 5 MINUTES, 58 SECONDS INTO THE FLIGHT.

FLIGHT ...ON WALLY.
SCHIRRA SIX MINUTES AND WE'RE REALLY GO.
HANEY MARK 6 MINUTES.

SC THE WINDOW VIEW IS SENSATIONAL.
 FLIGHT WE FINALLY GOT TO LOOK AT THE BBC.
 SC YEAH, THAT WAS A REAL -
 FLIGHT OKAY, EVERYTHING LOOKS GOOD HERE -
 HANEY SIX MINUTES, 20 SECONDS.
 SC FLIGHT REPORTS EVERYTHING IS RIGHT ON
 TRACK.
 HANEY MARK 6 MINUTES, 30 SECONDS; WHERE THE
 TRAJECTORY NOW IS BEGINNING TO LEVEL OUT AT NEARLY 110 MILES
 ALTITUDE AND WE ARE COMING UP NEARLY 400 MILES OUT OVER THE
 ATLANTIC OCEAN.
 FLIGHT YOU'RE RIGHT ON THE OLD BUTTON.
 HANEY CAP COM JACK SWIGERT HERE IN HOUSTON
 REASSURES THE CREW THAT, "YOU'RE RIGHT ON THE OLD BUTTON."
 AND THE COMMUNICATIONS ARE SO CLEAR IT SOUNDS LIKE THE CREW
 IS WORKING FROM THE SIMULATOR. SEVEN MINUTE, 3 SECONDS INTO
 THE FLIGHT.
 CUNNINGHAM - CUT OUT THERE -
 HANEY AND WE JUST HAD OUR FIRST REPORT FROM
 WALT CUNNINGHAM IN THE RIGHT SEAT REPORTING ON THE ANTENNAS.
 FLIGHT WALT'S A LITTLE GARBLED.
 HANEY HIS COMMUNICATION WAS NOT QUITE AS CLEAN
 AS THAT FROM EISELE AND SCHIRRA BUT QUITE READABLE. SEVEN
 MINUTES, 30 SECONDS INTO THE FLIGHT.
 CUNNINGHAM 7 DOWNCLEAR; LV.
 FLIGHT YOU'RE COMING IN VERY GARBLED.
 EISELE ROGER. OKAY -
 FLIGHT YOU'RE ALSO GARBLED DON; I CAN READ OUT -
 HANEY SEVEN MINUTES, 45 SECONDS INTO THE FLIGHT.
 SC (GARBLE) FUEL -
 FLIGHT LET'S SEE WHAT YOU CAN DO WITH IT.
 HANEY MARK, 8 MINUTES INTO THE FLIGHT.
 EISELE GIVE IT TO THEM AT ... 8 MINUTES TO GO.
 FLIGHT OKAY, COPY -
 HANEY AND THE CREW REPORTS THE GUIDANCE - DON
 EISELE REPORTS THE GUIDANCE IS GO AT 8 MINUTES. WE ARE 8 MIN-
 UTES, 15 SECONDS.
 SC - BUMPY ROAD, VERY, VERY (GARBLE)
 HANEY WE ARE PREDICTING A CUT OFF TIME AT 10
 MINUTES PLUS 16 SECONDS, PLUS 16 SECONDS I BELIEVE. EIGHT
 MINUTES, 40 SECONDS NOW; THE TRAJECTORY HAS FLATTENED OUT
 AT ABOUT 125 NAUTICAL MILES AND WE'RE 800 MILES DOWNRANGE.
 SC FLIGHT, THIS IS (GARBLE)
 HANEY THE COMMUNICATION IN THE LAST MINUTE HAS
 GOTTEN SOMEWHAT GRAVELEY, NOT NEARLY AS CLEAN AS IT WAS IN THE
 EARLY PART.
 SCHIRRA ROGER; WE'RE GO FOR ORBIT AT 9 MINUTES.
 HANEY AND SCHIRRA AT 9 MINUTES REPORTS WE'RE
 GO FOR ORBIT.

HANEY CONTROL CENTER HERE IS CONSIDERING SHIFT-
ING THE - COM LOOP TO THE VANGUARD SHIP WHICH IS PARKED OUT
SOUTH OF BERMUDA SOMEWHERE MID-ATLANTIC. THE COMMUNICATIONS
ARE STILL QUITE GOOD. THEY WERE JUST EXTRAORDINARY THROUGH
THE FIRST 6 MINUTES OF FLIGHT. AT 9 MINUTES, 30 SECONDS INTO
THE FLIGHT, ALL SYSTEMS ARE IN EXCELLENT SHAPE. WE ARE NOW
PREDICTING SHUT DOWN AT 10 MINUTES AND 20 SECONDS, 10 MINUTES
20 SECONDS INTO THE FLIGHT. WE ARE NOW COMING UP ON OUR MARK
10 MINUTES INTO THE FLIGHT, MARK 10 MINUTES.

SC RP DELTA, PLEASE CAP COM.

FLIGHT RP DELTA APOLLO 7.

HANEY 10 MINUTES, 10 SECONDS.

FLIGHT (GARBLE) TO APOLLO LOS.

SCHIRRA ROGER; UNDERSTAND.

HANEY AND - WE GOT A CUT OFF THAT SOUNDED TO
ME LIKE AT ABOUT 10 MINUTES, 19 SECONDS, SCHIRRA CONFIRMED
IT. AND EISELE NOTED THAT IT FELT A LITTLE DIFFERENT THAN
WHEN THEY WERE ON THE BOOSTER; WHEN THAT CUT OFF CAME THROUGH.
THEY WILL REMAIN ATTACHED TO THE S4B THAT SECOND STAGE AND
THEY WILL BE GIVEN A GO TO STAY IN THE PLANNED CONFIGURATION,
ATTACHED TO THE SECOND STAGE FOR PERHAPS - NEARLY 3 HOURS.

FLIGHT (GARBLE) WE HAVE YOU GO FOR ORBIT.
GO FOR ORBIT.

HANEY AND THE CONTROL CENTER HAS RELAYED WORD
HERE, "WE SHOW YOU GO FOR ORBIT."

END OF TAPE

HANEY AND THE CONTROL CENTER HAS RELAYED WORD HERE, WE SHOW YOU GO FOR ORBIT. FOR THE FIRST SIX REVOLUTIONS AROUND THE EARTH, IT WILL BE A REVOLUTION BY REVOLUTION CONSIDERATION, BUT THESE CUTOFF PARAMETERS WERE JUST NEARLY AS PERFECT AS THEY COULD BE FROM THE LOOKS OF OUR PLOT BOARDS. 11 MINUTES 30 SECONDS AND THE CREW HAS BEEN ADVISED THAT THE S-IV SYSTEMS HAVE BEEN SAFED. THE ELECTRICAL CIRCUITS ARE SHUT DOWN AND THE BOOSTER IS CONSIDERED IN A - A QUITE SAFE CONFIGURATION. SOME RESIDUAL LIQUID HYDROGEN AND LIQUID OXYGEN REMAINING ABOARD, THAT WILL BE VENTED AS WE MOVE THROUGH THIS FIRST REVOLUTION.

HANEY THIS IS APOLLO CONTROL IN HOUSTON AT 13 MINUTES INTO THE FLIGHT. WE ARE STILL GETTING EXCELLENT COMMUNICATIONS FROM APOLLO 7 WHICH IS NOW IN THE MIDDLE OF THE ATLANTIC OCEAN. THE QUALITY OF THE VOICE COM IS NOT THAT WHAT IT WAS IN THE FIRST FEW SECONDS, BUT IT - THE FIRST FEW MINUTES - BUT IT IS STILL QUITE READABLE. WE HAVE RERACKED THE ENTIRE VOICE COMMUNICATIONS FROM LIFTOFF THROUGH STAGING. WE ARE PREPARED TO PLAY IT FOR YOU NOW AND IT BEGINS AT T-30 SECONDS. ROLL THE TAPE, PLEASE.

ROOSA AND APOLLO 7, STAND BY FOR THE 10 SECOND COUNT.

SC UNDERSTOOD.
 ROOSA 10, 9, 8, 7, 6, 5, 4, IGNITION.
 CAPE (GARBLE) LIFTOFF.
 CAPE CLEAR OF THE TOWER.
 CAPE ROLL COMMENCE.
 SC PITCH IS TRACKING GOOD.
 CAPE ROGER.
 SC AT A THOUSAND FIVE DEGREES.
 CAPE ROLL COMPLETE.
 SCHIRRA ROGER, SHE RUNNING - IT'S GETTING A

LITTLE NOISY NOW.

CAPE DDS MANUAL.
 SC ROGER ONE CHARLIE.
 CAPE ROGER, WE'RE GO HERE, JACK.
 HANEY THIS IS APOLLO CONTROL IN HOUSTON, 21

MINUTES INTO THE FLIGHT. THE GROUND AND THE CREW FINALLY GOT TO THE RIGHT ANTENNA WITH THE SPACECRAFT OVER THE CANARY ISLANDS AND UNTIL THAT POINT, THE COM, FROM APPROXIMATELY MID-ATLANTIC ON INTO THE CANARY AREA WAS PRETTY ROCKY - PRETTY ROUGH AND THEY WENT TO ONE OF THE ANTENNAS WHICH APPARENTLY WAS POINTED IN THE PROPER DIRECTION AND THE COM CLEARED UP MARKEDLY AS YOU WILL BE ABLE TO OBSERVE AS WE PLAY THIS VOICE TAPE. I'VE CHECKED WITH THE FLIGHT DIRECTOR, HE TELLS ME THAT SCHIRRA HEART RATE AT LIFTOFF WAS 87 BEATS PER MINUTE - 87 BEATS PER MINUTE AT LIFTOFF. AND AT STAG-

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HANEY ING WHEN THE FIRST STAGE BURNED OUT
AND THE SECOND STAGE IGNITED IT HIT IT'S HIGH POINT -

END OF TAPE

HANEY ... STAGE BURNED OUT AND THE SECOND STAGING IGNITED IT, IT HIT ITS HIGH POINT DURING THE ENTIRE MISSION OF 100 BEATS PER MINUTE. ONE HUNDRED BEATS AT STAGING, 87 AT LIFT-OFF; WHICH IS, I CAN NEVER RECALL A LIFT-OFF HEART RATE IN THE 80'S, I CAN RECALL SOME IN THE 90'S AND I THINK THEY WERE WALLY'S. HERE IS SOME TAPE AS WE CAME INTO THE CANARY ZONE AND THE CREW HAVE TALKS ABOUT LOOKING OUT THE WINDOW AND OBSERVING THE CANARY ISLANDS.

FLIGHT 5, 4, 3, 2, 1, MARK, 17 MINUTES GET.
 SCHIRRA (GARBLE)
 FLIGHT RIGHT, YOU WON'T NEED A CMC LIFT-OFF
 UPDATE. YOU'RE OKAY THEN.
 SCHIRRA (GARBLE)
 FLIGHT APOLLO 7 SAY AGAIN.
 SCHIRRA (GARBLE)
 FLIGHT OKAY, WE'RE READING YOU ABOUT 2 BY,
 WE'RE REALLY TRYING TO DO SOME RECONFIGURING HERE TO GET
 GOOD COM. WITH YOU.
 SCHIRRA (GARBLE)
 FLIGHT I CAN'T MAKE IT OUT WALLY, STANDBY.
 SCHIRRA (GARBLE)
 FLIGHT APOLLO 7, HOUSTON, HOW ARE YOU READING
 NOW?
 SCHIRRA (GARBLE)
 FLIGHT OKAY, YOU'RE LOUD, BUT VERY GARBLE,
 WALLY.
 SCHIRRA (GARBLE)
 FLIGHT ALL YOUR SYSTEMS LOOK REAL GOOD DOWN
 HERE.
 SCHIRRA (GARBLE)
 FLIGHT I COULDN'T MAKE IT OUT. DO YOU WANT
 SLIP SIMPLEX A?
 SCHIRRA THAT'S LAND OUT THERE. LITTLE ISLAND
 DOWN THERE, CAN YOU SEE IT. WALT CAN, I GUESS.
 FLIGHT APOLLO 7, HOUSTON. HOW DO YOU READ
 NOW?
 SCHIRRA HOUSTON, APOLLO 7. HOW DO YOU READ ON
 SIMPLEX A.
 FLIGHT YOU'RE REAL FINE NOW, REAL FINE WALLY,
 AND WE'VE GOT YOU COMING THROUGH AN INTERCOM.
 SCHIRRA THAT'S CLEVER.
 FLIGHT OKAY.
 SCHIRRA NO, WE'RE BROADCASTING TO YOU.
 FLIGHT OH, OKAY, I WAS JUST WONDERING. I
 COULDN'T SEE WHAT YOU WERE DESCRIBING THERE.
 SCHIRRA WE'RE LOOKING AT THE CANARY ISLANDS.

FLIGHT OH, YOU'RE MAKING ME JEALOUS.
SCHIRRA WE'VE COMPLETED THE FIRST CHECK LIST,
WITH THE EXCEPTION OF THE FOUR CIRCUIT BREAKERS OF PANELS
277 AND 278.

FLIGHT ROGER, WE COPY.
SCHIRRA HE HASN'T POSTED THIS YET. IT'S LOUD
AND CLEAR OVER HERE, JACK; GOOD WEATHER REPORT.

FLIGHT ROGER, YOU'RE 5 BY ALSO.

S/C THIS TEST DESERTS.

HANEY THIS IS APOLLO CONTROL IN HOUSTON WITH
25 MINUTES INTO THE FLIGHT. THE CREW AFTER A VERY BRIEF
20 MINUTE FLIGHT ACROSS THE ATLANTIC OCEAN IS NOW GOING
ACROSS THE AFRICAN CONTINENT. WE'VE LOST TOUCH WITH THEM
AS THEY MOVE ACROSS AFRICA. THE OFFICIAL LAUNCH TIME WAS
15:02:45 ZULU TIME OR GREENWICH MEAN TIME, 15:02:45. OUR
PRESENT ORBITAL PARAMETERS ARE 122 BY 151, 122 NAUTICAL
MILES BY 151 NAUTICAL MILES; AND WE NOW BEGIN TO SETTLE
DOWN TO LOOK AT THE BUSINESS OF THE FLIGHT PLAN AND ONE
OF THE FIRST EVENTS AFTER LEAVING THE CANARY ZONE IS TO
CLOSE THE LIQUID HYDROGEN VENT AND IT SHOULD BE CLOSED
VERY SHORTLY. AT TANANARIVE, THE SPACECRAFT WILL GO INTO
IT'S FIRST SUNSET. WE WILL BE TALKING TO THEM THROUGH
TANANARIVE. THE TANANARIVE STATION SHOULD ACQUIRE ALONG
ABOUT 36 MINUTES INTO THE FLIGHT. WE'RE PRESENTLY 26 MIN-
UTES INTO THE FLIGHT. THIS IS APOLLO CONTROL HOUSTON.

END OF TAPE

HANEY THIS IS APOLLO CONTROL IN HOUSTON AT 36 MINUTES INTO THE FLIGHT. IN THE LAST MINUTE OR TWO WE HAVE REVIEWED THE G DATA RECORDED ON THIS FLIGHT AND THE CURVE IS A VERY GENTLE ONE ON THE FIRST STAGE, AND IT PEAKED RIGHT AT ABOUT 4 G'S, AND OF COURSE IT FALLS BACK TO ZERO G FOR A SHORT TIME AND THEN IT BEGINS A GENTLE CLIMB AGAIN AND AT THE SECOND STAGE SHUT DOWN, SOME 10 MINUTES AND 20 SECONDS INTO THE FLIGHT, IT WAS PEAKED OUT ON THE SECOND STAGE AT ABOUT 2 AND A HALF G'S. WE HEARD THE CREW REMARK AT LEAST ONCE, PERHAPS SEVERAL TIMES, ABOUT WHAT A GENTLE RIDE IT WAS. GLENN LUNNEY, OUR FLIGHT DIRECTOR, HAS GONE AROUND THE ROOM CONSOLE BY CONSOLE. HE OPENED THAT SESSION WITH THESE WORDS. "OKAY, EVERYBODY, LETS - WE'VE GOT A LONG WAY TO GO. LET'S SIT DOWN AND LOOK AT WHAT WE'VE GOT." HE THEN WENT THROUGH EACH SYSTEM AND QUESTIONED EACH MAN ABOUT HIS PARTICULAR SPECIALTY AREA DURING THE LAUNCH PHASE AND HE GOT NO SURPRISES. WE HAVE TAGGED UP WITH THE CREW NOW OVER TANANARIVE. WE'VE PUT IN A CALL, AND AT THIS POINT WE'VE NOT HEARD FROM THEM, BUT SCHIRRA SHOULD BE INSTALLING AN ALIGNMENT SITE IN HIS WINDOW. THIS WILL HELP HIM - IT IS SOMETHING LIKE A BORE SIGHT - IT WILL HELP HIM DO A NUMBER OF TASKS AND HE WILL USE IT TO LOOK AT ALL SORTS OF OBJECTS DURING THE FLIGHT. VERY SHORTLY WE SHOULD OPEN THE LIQUID HYDROGEN VENT VALVE AND THIN OUT SOME OF THE RESIDUAL FUEL IN THERE IN THE LIQUID HYDROGEN TANK, AND OVER - THAT WILL TAKE PLACE OVER CARNARVON SOME 54 MINUTES INTO THE FLIGHT. THEY SAY THE CALL WENT IN BY THE TANANARIVE STATION ABOUT TWO MINUTES AGO. WE'VE NOT HEARD FROM THE CREW. WE ARE GETTING A RATHER STEADY CARRIER NOISE ON THE LINE. WE'LL STANDBY AND COME UP WITH THAT COMMUNICATION AS IT DEVELOPS.

HANEY APOLLO CONTROL HERE AT 42 MINUTES INTO THE FLIGHT. TOM STAFFORD, ONE OF OUR CAPSULE COMMUNICATORS, HAS BEEN RUNNING A HF VOICE COMMUNICATION CHECK. WE HEARD FROM APOLLO 7 LOUD AND CLEAR, BUT THEY APPARENTLY CAN NOT HEAR US, AND WE'RE GOING TO CONTINUE THIS VOICE CHECK BY HF, WHICH IS THE HARD WAY, OF COURSE, AND LET'S LISTEN NOW AS STAFFORD TRIES TO CONTACT THE SPACECRAFT.

HANEY APOLLO CONTROL HERE AGAIN. WE'RE STILL ATTEMPTING TO ESTABLISH HF COMMUNICATIONS. WE WANT TO EMPHASIZE THAT THERE IS NOTHING WRONG AT ALL WITH OUR UHF CHANNEL VIA THE OTHER MEANS OF COMMUNICATION, BUT WE ARE EXPLORING JUST HOW GOOD THE HF SYSTEM IS AT THIS EXTRAORDINARILY LONG RANGE. APPARENTLY THE COMMUNICATOR AT THE TANANARIVE STATION MAY BE HEARING SOMETHING FROM THE SPACECRAFT WE ARE NOT. IT IS JUST A SHAKE DOWN TEST OF THE TOTAL COMMUNICATIONS CAPABILITY THAT WE HAVE, AND WE'LL LEAVE THE CARRIER UP, ALTHOUGH IT LOOKS LIKE THEY ARE MOVING OUT OF THE RANGE OF TANANARIVE. WE'LL LEAVE IT UP ANOTHER

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 3630

24/2

HANEY MINUTE OR TWO, AT 44 MINUTES INTO
THE FLIGHT, THE CREW GETTING ITS FIRST LOOK AT THE INDIAN
OCEAN AFTER DEPARTING THE AFRICAN CONTINENT. THIS IS
APOLLO CONTROL HOUSTON.

END OF TAPE

HANEY AND THIS IS APOLLO CONTROL HOUSTON AT 52 MINUTES INTO THE FLIGHT. IN A VERY FEW SECONDS, WE WILL PUT IN A CALL TO THE CREW BY THE CARNARVON STATION ON THE WEST COAST OF AUSTRALIA. I JUST GOT A CALL THAT CARNARVON HAD ACQUIRED - THE ACQUISITION AID HAD LOCKED UP. THE DISCUSSION OVER THE AUSTRALIAN PASS IS ALWAYS AN INTERESTING ONE AND HERE COMES THE COM NOW. TOM STAFFORD FROM HERE.

SC THIS IS FIRM, WE ARE HAVING A BALL.
CAP COM ROGER. WE READ YOU LOUD AND CLEAR OVER TANANARIVE WALLY, BUT EVIDENTLY YOU COULD NOT READ US.

SC AFFIRMATIVE.
CAP COM OKAY, WE HAVE A NEW TIME FOR YOUR LOX DUMP. THE -

SC WAIT A MINUTE. OKAY, GO AHEAD, TOM.
CAP COM ROGER. THE S IVB DUMP WILL OCCUR AT 1 + 34 + 27. ESTIMATED DELTA V OF 32 FEET PER SECOND. DID YOU GET THAT, WALT?

SC ROGER. 1 + 34 + 27, 32 FEET PER SECOND.

CAP COM ROGER.
SC DO YOU READ?
CAP COM ROGER, WE GOT THEM.
SC OKAY, WE'VE COMPLETED ABOUT THE FIRST CHECKLIST DOWN TO WHERE THE CMP HAS TO GET OUT OF THE COUCH, STANDING BY FOR YOUR GO/NO-GO.

CAP COM ROGER.
SC I'LL GIVE YOU A LITTLE FAST REPORT ON WHAT WE WANT HERE.

SC THE WINDOWS APPEAR TO BE ALMOST CRYSTAL CLEAR, WHICH IS GOOD NEWS FOR ALL OF US. AND WE HAVE VERY GOOD VISIBILITY OUT OF ALL FIVE WINDOWS AND THAT CENTER HATCH ONE, THERE IS A DRAIN FOR MONITORING BOOST.

CAP COM ROGER.
SC WE'VE NOTED THE AIRGLOW HERE AND MADE SOME DIRT ON IT. IT LOOKS LIKE IT'S ABOUT 3 DEGREES THICK AS WE APPROACHED CARNARVON AT NIGHT OF COURSE, WE MEASURED THAT WITH A ...

SC (GARBLE) AT 12 O'CLOCK, GUESS ... ARRIVED AT 12 O'CLOCK THIS TRIP.

CAP COM YOU'VE SEEN ME BEFORE.
SC (LAUGHTER) ROGER, CAME INTO VIEW 3 DEGREES BEFORE THE TOP OF THE AIRGLOW, WHERE THAT WAS THE SURFACE OF THE EARTH.

CAP COM OKAY.
SC I'LL SEE IF DONN AND WALT HAVE ANYTHING TO SAY, AFFIRM.

CAP COM OKAY. STANDBY, THEY WANT TO GET YOU A NAV LOAD RIGHT NOW FOR THE GO/NO-GO. STAND BY.

SC ROGER.
CAP COM APOLLO 7, HOUSTON.

SC GO AHEAD.
 CAP COM ROGER. HAVE A GO, AND GUIDANCE WOULD
 LIKE TO SEND YOU AN UPDATE.
 SC ROGER, STAND BY.
 SC ROGER. WE'RE IN BLOCK, WILL GO TO
 ACCEPT ON YOUR CALL.
 CAP COM ALL RIGHT. GO TO ACCEPT.
 SC WE ARE IN ACCEPT. UNDERSTAND WE'LL GO
 FOR 2 UP.
 CAP COM AFFIRMATIVE. ROGER, JACK, I'M OB-
 SERVING YOUR REWINDED TAPE DUMP. WE WOULD LIKE TO GET
 A GOOD READING ON GO/NO-GO ON THE DFC AS SOON AS YOU CAN.
 SC OKAY. TOTAL OF LOX DUMP WAS 1.34.27,
 32 FEET PER SECOND.
 CAPCOM ROGER. WE COPY. OKAY, IT'S COMING
 UP.
 CAPCOM APOLLO 7, HOUSTON. THE LOAD IS IN,
 HAS BEEN VERIFIED, THE COMPUTER IS YOURS.
 SC VERY GOOD.
 HANEY THIS IS APOLLO CONTROL HOUSTON. THE
 PLATFORM IN THE GUIDANCE COMPONENT OF THE SPACECRAFT
 CHECKED OUT VERY NICELY. IT'S WITHIN LESS THAN A HALF OF
 A DEGREE IN ALL RESPECTS, PRECISELY WHERE IT SHOULD BE.
 THE ANGLES HAVE ALL BEEN TAKEN INTO CONSIDERATION NOW. AS
 WE MOVE ACROSS AUSTRALIA, WE WOULD ANTICIPATE FROM THE
 CREW THAT THEY HAD BEGUN TO REMOVE THINGS, LIKE GLOVES
 AND THEIR LIFEVESTS, AND PROBABLY THEIR HELMETS. THE
 LUNAR MODULE PILOT WALT CUNNINGHAM, SHOULD BE FINISHING
 UP HIS INSERTION CHECKLIST, HIS EXTENSIVE LIST. LET'S
 GO BACK TO THE CREW.
 SC HE IS TAKING OFF HIS SUIT NOW, WALT
 AND MINE STILL ON. WE GET AN O2 FLOW HIGH WHEN DONN
 OPENS UP THE SUIT AND WE ANALYZE THAT AS THE SUIT RATE
 TRYING TO CATCH UP TO THE CABIN, SO WE ARE GO.
 CAPCOM OKAY, WE COPY.
 SC OKAY JACK. WE'VE GOT THE SUIT FLOW
 VALVE OFF AND THE O2 FLOW IS DROPPING DOWN.
 CAPCOM OKAY, WE COPY.
 SC NO PROBLEM, IT'S JUST THAT WE HAVEN'T
 SEEMED TO BE ABLE TO STOP AT THE RIGHT THING.
 CAPCOM HEY JACK, DO YOU THINK THEY WILL BE
 ABLE TO GET THE TAPE RECORDER REWOUND BEFORE WE DELIVER
 THAT?
 CAPCOM STAND BY.
 CAPCOM APOLLO 7 HOUSTON. WE'VE GOT THE
 TAPE RECORDER REWOUND OVER CANARIES. WE WILL DO A DUMP
 OVER MILA.
 SC ROGER.

CAPCOM WE WOULD LIKE TO HAVE A READING OF JUST
 WHAT YOU HAVE ON THAT TAPE, BECAUSE WE WERE TALKING ON IT
 CONTINUOUSLY.
 SC OK. WILL DO. WE'LL DO THAT OVER THE
 STATESIDE PASS WALT.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 1:03:30 26/1

CAPCOM APOLLO 7 HOUSTON. APOLLO 7 HOUSTON
HANEY THIS IS APOLLO CONTROL HOUSTON. WE
HAVE LOST SIGNAL VIA THE HONEYSUCKLE CREEK OUTSIDE OF
CANBERRA, AUSTRALIA. IT IS A NEW STATION TO JOIN OUR
NETWORK, AND WE SHOULD NOT HEAR FROM THE CREW AGAIN UNTIL
THE SHIP HUNTSVILLE PARKED HALF WAY BETWEEN HAWAII AND THE
COAST OF CALIFORNIA PICKS THEM UP AT 1 HOUR AND 24 MINUTES
INTO THE FLIGHT. WE ARE 1 HOUR AND 7 MINUTES INTO THE
FLIGHT RIGHT NOW AND THAT WAS NOT A PARTICULARLY COMMUNICA-
TIVE PASS. WE HAD A LITTLE CALM IN THE EARLY PART. APPAR-
ENTLY THE CREW GOING THROUGH THEIR INITIAL STOWAGE OF SUCH
THINGS AS THE HELMET THE GLOVES. THEY'RE GETTING OUT PIECES
OF EQUIPMENT AND GETTING SQUARED AWAY FOR THE EARLY REVS
OF THE FLIGHT. THE STOWAGE LIST CALLED FOR THE COMMAND
PILOT TO STOW VARIOUS TEMPERATURE DEVICES, FLIGHT DATE
FILES, INSTALL A URINE FILTER, AND ADJUST THE COUCH POSITION.
THEY WILL BE ALSO UNSTOWING AND ASSEMBLING SOME CAMERAS,
AND LOADING THEM WITH FILM AS THEY FLY IN A NORTHERLY DIR-
ECTION UP ACROSS THE ATLANTIC, EXCUSE ME, THE PACIFIC. A
REMINDER, WE ARE FLYING AT 32 DEGREES NORTH AND SOUTH OF
THE EQUATOR ON THIS FLIGHT AS OPPOSED TO THE 28 DEGREES
WE FLEW THROUGHOUT THE GEMINI PROGRAM. WE FLEW 32 DEGREES
IN MERCURY AND WE ARE BACK AT THAT ALTITUDE, AT THAT
LONGITUDE. AT 1 HOUR AND 8 MINUTES INTO THE FLIGHT, THIS
IS APOLLO CONTROL IN HOUSTON.

END OF TAPE

HANEY THIS IS APOLLO CONTROL HOUSTON AT 1 HOUR 21 MINUTES INTO THE FLIGHT. WE'VE JUST HAD A LITTLE THRILL HERE IN THE APOLLO CONTROL CENTER IN BUILDING 30 IN HOUSTON. WE HAD A RATHER COMPLETE POWER OUTAGE IN THE BUILDING, THE FIRST ONE I CAN RECALL IN THE HISTORY OF THIS PARTICULAR CONTROL CENTER. WE DIDN'T LOSE ALL POWER, OF COURSE. CERTAIN CRITICAL ELEMENTS LIKE THE COMPUTERS CONTINUED TO RUN ON EMERGENCY POWER LINES, AND EMERGENCY POWER CIRCUITS LEFT CERTAIN LIGHTS, EXIT LIGHTS AND THAT SORT OF THING LIGHTED IN THE HALLS. BUT ALL OF OUR CONSOLES WENT DEAD, LOST POWER. OUR LIGHTS WERE OUT HERE IN THE CONTROL CENTER EXCEPT FOR CERTAIN EMERGENCY RED LIGHTS. I WOULD CLOCK THE OUTAGE AS OCCURRING ABOUT 20 MINUTES AFTER THE HOUR AND LASTING PERHAPS 60 TO 90 SECONDS, ABOUT A MINUTE - MINUTE AND A HALF DURATION. WE HAVE VERIFIED THAT ALL THE COMPUTERS, THE CRITICAL COMPUTERS RUNNING ON LINE WITH THIS MISSION, CONTINUE TO RUN. THEY ARE LOCATED ON THE FIRST FLOOR OF THIS BUILDING. WE WERE NOT IN CONTACT, OF COURSE, WITH THE SPACECRAFT AT THE TIME, AND HAD WE BEEN WE WOULD HAVE CONTINUED TO BE ABLE TO GO OUT OF THE BUILDING. ALL OF OUR COM CIRCUITS CONTINUED TO WORK, WE WERE SIMPLY WITHOUT LIGHTS, AND WE DIDN'T KNOW, IN OTHER WORDS THESE COM CIRCUITS ARE SET UP IN SUCH A WAY THAT WE KNOW WHETHER WE ARE RADIATING BY A FLASHING WHITE LIGHT OR WE ARE MONITORING WHEN WE SIMPLY HAVE A STEADY YELLOW LIGHT. ON EACH CONSOLE YOU HAVE SUCH AN ARRAY OF BUTTONS TO VARIOUS BACK ROOMS AND TO POINTS OUTSIDE OF THIS BUILDING, TO THE CAPE, TO OTHER PLACES. WE LOST POWER ON ALL THOSE KINDS OF CIRCUITS, WE LOST ALL OF OUR VIDEO CAPABILITY TO MONITOR THE VARIOUS SLIDES AND WE DO NOT YET HAVE AN EXPLANATION OF JUST HOW OR WHY THIS OCCURRED. BUT AT 1 HOUR AND 23 MINUTES INTO THE MISSION WE ARE BACK UP IN GOOD SHAPE WITH FULL POWER. THIS IS APOLLO CONTROL IN HOUSTON.

END OF TAPE

HANEY THIS IS APOLLO CONTROL HOUSTON 1 HOUR
25 MINUTES INTO THE FLIGHT. CAPSULE COMMUNICATOR TOM
STAFFORD IS PUTTING IN A CALL TO THE COMMUNICATOR ON THE
SHIP HUNTSVILLE HALF WAY BETWEEN HAWAII AND CALIFORNIA.
LET'S CUT IN ON THAT CONVERSATION NOW.

CAPCOM ROGER. ARE WE TRANSMITTING SIMULTANE-
OUSLY AND RECEIVING VHF?

HTV AFFIRMATIVE.

CAPCOM ROGER. ARE YOU GOING TO CONTACT - HAVE
YOU HEARD APOLLO 7?

CAPCOM APOLLO 7, HOUSTON

HTV HOUSTON COMTECH HUNTSVILLE.

CAPCOM GO AHEAD HUNTSVILLE.

HTV APOLLO 7 COPIED YOU LOUD AND CLEAR.

APOLLO 7 COPIED YOU LOUD AND CLEAR. GO AHEAD AND WE'LL
RELAY.

CAPCOM ROGER APOLLO 7 THIS IS HOUSTON CAPCOM.
UNDERSTAND YOU ARE READING. GO AHEAD AND RELAY THROUGH
THE HUNTSVILLE THE S4B TANK PRESSURES. AND AGAIN JUST
TO REMIND YOU TO CALL PROGRAM 47 PRIOR TO THE LOCK STOP

CAPCOM HUNTSVILLE M AND O HOUSTON CAPCOM.

HTV GO AHEAD, HUNTSVILLE M AND O.

CAPCOM ROGER. DID APOLLO 7 GET THE MESSAGE?

HTV NEGATIVE. WE CAN ONLY COPY HIM WHEN

WE ARE DEAD BAND LOGGED. WE ARE PRESENTLY EXPERIENCING
TROUBLE WITH LOGGING TWO WAY VHF BAND.

CAPCOM ROGER, YOU CAN'T READ ANY VHF?

HTV NEGATIVE AT THIS TIME.

SC HOUSTON, APOLLO 7. DO YOU READ?

CAPCOM ROGER APOLLO 7, READ YOU LOUD AND CLEAR.

HOW ELSE?

SC OKAY, THE READINGS ARE 24241313.

CAPCOM ROGER 24 AND 13 WALLY, NOW READING YOU
LOUD AND CLEAR.

SC NOW WE ARE TURNING THEM ON BOTH A AND B
AND I HAVE THAT LOGGED.

CAPCOM ROGER

SC (GARBLED)

CAPCOM ROGER. DID YOU GET ME TRANSMITTING IN
THE LINE OVER THE HUNTSVILLE, WALLY?

SC I DON'T THINK SO, WHAT WAS THAT, TOM?

CAPCOM WELL, I JUST - TO READ THE TANK PRESSURES
AND TO CALL PROGRAM 47 PRIOR TO LOCK STOP.

SC ROGER. WE HAVE THAT DATA. I HAVE TANK
PRESSURES AT 1 (GARBLE) 6 PLUS 15 1 (GARBLE) PLUS 5 0 IF YOU ARE
READY TO COPY.

CAPCOM ROGER, WE GOT IT.

SC 23 23 8 THEN 8. THAT'S 1 PLUS 06

CAPCOM APOLLO 7 HOUSTON, YOU FADED OUT COMPLETELY.
WE'LL CONTACT YOU OVER CALIFORNIA IN A COUPLE OF SECONDS

SC ROGER DATA PLOT.

HANEY THIS IS APOLLO CONTROL HOUSTON 1 HOUR 31 MINUTES INTO THE FLIGHT. WE SHOULD ESTABLISH CONTACT THROUGH GUAYMAS MOMENTARILY. TO RECAP A BIT ON THAT POWER OUTAGE THAT WE EXPERIENCED ABOUT 10 MINUTES AGO, I CLOCKED IT AT 20 MINUTES AFTER THE HOUR, THE DURATION WAS SOMETHING ON THE ORDER OF 1 TO 2 MINUTES, AND INITIALLY IT WAS A RATHER COMPLETE POWER OUTAGE. WE STILL HAD COMMUNICATIONS ON THE CIRCUITS, BUT WE DID NOT HAVE THE LIGHT SHOWING US ON WHICH CIRCUITS WE HAD COMMUNICATIONS. WE WERE NOT IN TOUCH WITH THE SPACECRAFT AT THE TIME, AND THE COMPUTERS, THE CRITICAL COMPUTERS, THE ON LINE COMPUTERS CONTINUED TO RUN THROUGH A SEPARATE AND A SECURE EMERGENCY POWER SOURCE. SINCE THAT TIME, FOR ABOUT THE PAST 5 MINUTES, WE HAVE BEEN WITHOUT OUR TV DATA DISPLAYS UNTIL SUCH TIME AS ADDITIONAL POWER COULD BE BROUGHT OVER ON THAT CIRCUIT. NOW WE HAVE THE SPACECRAFT IN TOUCH, AND LETS LISTEN TO TOM STAFFORD AND WALLY SCHIRRA DISCUSS THE SITUATION.

SC THAT DATA ON THE SYV NOW?

CAPCOM APOLLO 7 HOUSTON

SC GO AHEAD.

CAPCOM YOU MIGHT TELL WALT, WHAT THEY DID THEY REWOUND THE TAPE RECORDER OVER CANARY AND IF HE HAS ANY ADDITIONAL VOICE THAT HE WANTS TO PLACE ON HE CAN PLACE IT ON THERE NOW. THEY'LL DUMP IT AGAIN OVER MILA.

SC YES, THANK YOU.

CAPCOM OKAY, THEY DIDN'T GET YOUR REMARKS ON BOOTH BECAUSE THEY REWOUND IT OVER CANARY, WALT, PER THE FLIGHT PLAN.

SC OKAY, WELL ALL NEEDLE READOUTS WERE NORMAL, AND I DIDN'T LIST THEM INDIVIDUALLY ON THE INSERTION TEXT, AND IT'S ON THE TAPE AND THAT'S ABOUT THE BEST WE CAN DO.

CAPCOM OKAY, AND WE'RE STANDING BY FOR THE DUMP SHORTLY.

SC IT'S A FANTASTIC REV UP HERE.

HANEY THIS IS APOLLO CONTROL HOUSTON AT 1 HOUR 34 MINUTES INTO THE FLIGHT. APPARENTLY THERE IS SOME DISCREPANCY IN OUR EARLIER REPORT ON THE POWER OUTAGE. I WANT TO ABSOLUTELY EMPHASIZE THAT THERE WAS NO AFFECT AT ALL ON THE COMPUTERS IN BUILDING 30. I REPEAT. NO AFFECT. THEY HAVE AN EMERGENCY POWER SOURCE WHICH CUT IN AND HANDLED THAT LOAD JUST PERFECTLY. WE DID LOSE LIGHT IN THE BUILDING IN THE HALLS, AND WE LOST LIGHTS ON OUR CONSOLE. WE CONTINUED TO HAVE COMMUNICATIONS, HOWEVER, WE CONTINUED TO HAVE PHONE SERVICE. FOR A PERIOD OF ABOUT 1 TO 2 MINUTES WE WERE WITHOUT MOST OF THE LIGHTS IN THE BUILDING, AND WE WERE ABLE TO SEE THROUGH AN EMERGENCY OVER HEAD SYSTEM A FAINT RED LIGHT WHICH ILLUMINATES REGARDLESS OF - IN CASE OF COMPLETE POWER OUTAGE. BUT AGAIN I WANT TO

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 1:25:55

28/3

HANEY EMPHASIZE THERE WAS NO POWER OUTAGE
AT ALL ON THE COMPUTERS TRACKING THIS MISSION. WE'LL GO
BACK NOW AND LISTEN TO THE EVENTS AS WE MOVE ACROSS THE
STATES.

END OF TAPE

S/C (GARBLE)
 CAPCOM OKAY, HOUSTON, THE DUMP APPEARS TO BE
 PROCEEDING NORMALLY.

S/C EGRESS.
 HANEY THIS IS APOLLO CONTROL HOUSTON WITH THE
 SPACECRAFT JUST EAST OF NEW ORLEANS AND PROCEEDING TOWARD
 ELEAN PASS, IT WILL TAKE IT ALMOST DIRECTLY OVER SAVANNAH,
 GEORGIA. WE ARE 1 HOUR, 40 MINUTES INTO THE FLIGHT AND
 WE HAVE COMPLETED AT LEAST THE INITIAL PART OF THE OXYGEN
 DUMP, AND WE HAVE NOW OPENED THE LIQUID HYDROGEN VENT VALVES.
 THEY WILL SHORTLY BE CLOSED AT THE COMPLETION OF THAT EXER-
 CISE. THE LIQUID HYDROGEN VALVE IS TO BE CLOSED IN 1 HOUR,
 45 MINUTES INTO THE FLIGHT, JUST EAST OF FLORIDA. ABOUT
 A MINUTE LATER, WE'LL STOP THE - STOP DUMPING THE RESIDUAL
 LOX. EARLIER, THE BOOSTER CONSOLE OPERATOR TOLD ME THERE
 SHOULD BE A - ON THE ORDER OF 1 PERCENT RESIDUAL LIQUID
 OXYGEN IN THE S4B, WHICH REMAINS ATTACHED, OF COURSE, TO
 THE SPACECRAFT; AND 1 PERCENT WITH IN TERMS OF WEIGHT
 WOULD BE 1000 TO 1500 LBS. VERY LITTLE CONVERSATION FROM
 THE CREW AS THEY CAME ACROSS THE STATES IN THIS PASS, BUT
 WE DID GET A GOOD LOOK AT THE SYSTEMS, WE GOT A CABIN THAT
 STABILIZED AT ABOUT 5.3 PSI. WE KNOW THE TEMPERATURE IS
 RUNNING A STEADY 66 DEGREES INSIDE. EARLIER BY THE
 AUSTRALIA STATIONS, SCHIRRA REPORTED THAT THEY'RE HAVING
 A BALL AND HE WAS ENTHUSIASTIC OVER THE FACT THAT THE
 WINDOWS HAVE NOT CLOUDED AT ALL, THIS WAS A RECURRING
 PROBLEM IN GEMINI. HE ALSO COMMENTED AS THEY MOVED ACROSS
 AUSTRALIA, WHAT AN ADVANTAGE IT WAS TO WATCH THE BOOSTER
 OPERATION THROUGH THE CENTER HATCH WINDOW, ONE OF FIVE
 WINDOWS AVAILABLE. WE ARE NOW STARTING OUR HELIUM DUMP
 FROM THE S4B, AND AGAIN NO CONVERSATION AT ALL ON THIS
 EASTERN PORTION OF THE STATE SWING. HERE IS A CALL.

CAPCOM THE DUMP IS INITIATED.

S/C ROGER.

S/C HOUSTON, APOLLO 7, I HAVE A PP02 FOR
 YOU. I'M READING 165.

CAPCOM ROGER, A PP02 AT 165.

S/C ROGER.

S/C HOUSTON, APOLLO 7, OUR CABIN PRESS NOW
 IS BEING - VERY RAGGED, IT SEEMS TO BE DOWN TO ABOUT 5.5.

CAPCOM ROGER, 5.5 ON THE CABIN.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 1:46:20

30/1

SC THIS IS APOLLO 7.
CAP COM HOUSTON TO APOLLO 7.
SC APOLLO 7, GO.
CAP COM ROGER; COULD YOU VERIFY THAT THE S5B
PASS POSITION IS COMPLETE?
CAP COM OKAY, STAND BY WALLY.
CAP COM I CAN STOP PROGRAM FOR YOU, 7.
SC ROGER, THE PRESERVATION IS COMPLETE AND
YOU CAN TERMINATE 47.
CAP COM ROGER, YOU HAVE A READ OUT OF DSKY. WE
GOT IT. WE'RE WAITING FOR AN UPDATE ON (GARBLE) FOR PROGRAM
52.
ROGER.
CAP COM WE'RE WORKING ON IT RIGHT NOW.

END OF TAPE

HANEY THIS IS APOLLO CONTROL HOUSTON, 2 HOURS, 15 MINUTES INTO THE FLIGHT. WE HAVE ESTABLISHED CONTACT WITH THE CREW VIA THE TANANARIVE STATION AND HERE'S HOW THE CONVERSATION IS GOING.

CAP COM HOUSTON THROUGH TANANARIVE, HOW DO YOU READ?

SC LOUD AND CLEAR, TOM.

CAP COM ROGER, WE'RE GETTING A LOT OF BACKGROUND NOISE ON THE HF COMING IN HERE, BUT YOU'RE COMING IN LOUD AND CLEAR.

SC ROGER, YOU WERE PUTTING THROUGH A LOT OF ECHO BUT YOU WERE QUITE READABLE. WE JUST RAN THROUGH AN ARIAN CONSTELLATION SO WE'RE VERY PRETTY.

CAP COM ROGER, HOW DO THE STARS LOOK THROUGH BOTH THE TELESCOPE AND SEXTANT COMPARED TO THE SIMULATOR?

SC A LITTLE BIT BETTER.

CAP COM ROGER.

SC WE'RE ENTERING THE CONSTELLATION (GARBLE)

CAP COM REAL GOOD. OKAY, WE'RE GOING TO GIVE YOU A TIME HACK AT 40 MINUTES TO GO TILL SEPARATION IN ABOUT 2 MINUTES.

SC ROGER, I'LL RESET MY DIAL.

CAP COM AND WE HAVE A GET FOR THE PITCH DOWN MANEUVER AND THE INERTIAL MANEUVER. DO YOU WANT TO COPY IT?

SC WAIT A MINUTE. ROGER, TOM, WE HAVE THE CLOCK FOR DEAD AHEAD AND WE HAVE A BLANK FOR GET.

CAP COM OKAY, GET OF PITCH DOWN IS 2 + 42 + 55; GET OF INERTIAL ATTITUDE, 2 + 51 + 10.

SC DATA REPEAT. GET PITCH DOWN AT 2 + (INTERRUPTED)

CAP COM 30 SECONDS TO GO.

SC ROGER.

CAP COM 5, 4, 3, 2, 1, MARK. 40 MINUTES COUNTING DOWN FOR SEP.

SC ROGER.

CAP COM ROGER.

SC WE'RE GOING TO TRY TALKING TO YOU AND WE WANT YOU TO COPY.

CAP COM GO AHEAD.

SC ROGER, (GARBLE) I'LL QUICKLY READ OFF ALL (GARBLE) 0693 (GARBLE) TURBO 12, TURBO 23, 00186. (GARBLE).

CAPCOM ROGER

SC (GARBLE).

CAP COM APOLLO 7, HOUSTON. WHAT WAS YOUR STAR ANGLE DIFFERENCE, THAT'S THE ONLY ONE IN QUESTION.

SC 4 + 2
CAP COM NOT BAD.
SC (GARBLE) GO ON TO ANOTHER (GARBLE).
CAP COM ROGER.
SC WE'VE GOT A REAL NICE CLEAN CABIN HERE,
VERY FEW PARTICLES FLOATING AROUND.
CAP COM THAT'S GOOD.
SC THERE ARE TWO VERY SMALL PARTICLES,
(GARBLE).
CAP COM OKAY.
SC (GARBLE)
HANEY THIS IS APOLLO CONTROL HOUSTON. WE
HAVE LOSS OF SIGNAL BY TANANARIVE. THE SPACECRAFT MOVING
ACROSS THE INDIAN OCEAN. DURING THE PASS ACROSS AUSTRALIA,
CANARVON SHOULD ACQUIRE ABOUT 10 MINUTES - ABOUT 8 MINUTES
FROM NOW, 2 HOURS, 28 MINUTES INTO THE FLIGHT. WE WILL
BE SET UP TO DECIDE ON WHETHER WE WILL PROCEED WITH THE
CREW TAKEOVER, THE CREW FLYING OF THE S4B. I UNDERSTAND
THIS CONFIGURATION WE ARE IN RIGHT NOW, WE ESSENTIALLY
HAVE A SPACECRAFT ABOUT 100 FEET LONG. CONSIDER THE
COMMAND MODULE, THE SERVICE MODULE, THE SLAUGH PANELS AND
THE NEARLY 60 FOOT LONG SECOND STAGE S4B, STILL HOOKED UP
TOGETHER AND THE SECOND STAGE IS TO BE UNHOOKED AND JETTISONED
AT 2 HOURS, 55 MINUTES INTO THE FLIGHT. THAT WOULD OCCUR
AFTER THE CREW HAS GONE THROUGH AN EXERCISE WHEREBY THEY
WILL GET THE FEEL OF WHAT THE CONTROL PROBLEMS ARE AND JUST
HOW DOES IT FEEL TO FLY SUCH A BIG KLUGE FROM THE ADVANTAGE
POINT OF THE COMMAND MODULE. THE - DONN EISELE, THE CENTER -
THE COMMAND MODULE PILOT, WILL RETURN TO HIS COUCH. HE HAS
BEEN DOWN IN THE LOWER EQUIPMENT BAY LOOKING OVER SOME OF
HIS GEAR AND GOING THROUGH SOME STOWAGE AND UNSTOWING
ACTIVITIES. HE'LL RETURN TO HIS COUCH FOR THESE UP COMING
ACTIVITIES WITH THE S4B LEADING UP TO THE SEPARATION. WHEN
WE ACQUIRE AT CARNARVON, WE'LL COME BACK TO YOU. THIS IS
APOLLO CONTROL HOUSTON.

END OF TAPE

HANEY THE SHIP HUNTSVILLE PARKED HALF WAY BETWEEN HAWAII AND THE COAST OF CALIFORNIA PICKS THEM UP AT 1 HOUR AND 24 MINUTES INTO THE FLIGHT. AND THAT WAS NOT A PARTICULARLY COMMUNICATIVE PASS; WE GOT A LITTLE COM IN THE EARLY PART, APPARENTLY THE CREW GOING THROUGH THEIR - THIS IS APOLLO CONTROL HOUSTON, 2 HOURS, 28 MINUTES INTO THE FLIGHT. WE HAVE ESTABLISHED CONTACT WITH APOLLO 7 BY CARNARVON, AND THE CREW HAS BEEN GIVEN A GO. WE ARE GETTING SOME CONVERSATION WITH THE CREW NOW; LET'S CHECK IN ON IT.

SC WAY UP THERE.

CAP COM OKAY, WE COPY.

HANEY WELL, WE'VE GOT A DEAD PERIOD HERE. WE WANT TO CLARIFY. PERHAPS EARLIER WE HAD GIVEN AN INDICATION THAT THE CONTROL THRUSTERS DURING THIS S4B TAKEOVER WOULD BE THRUSTERS ON THE SERVICE MODULE; THAT'S NOT CORRECT. THEY ARE THE THRUSTERS, THE SMALL PITCH CONTROL THRUSTERS ON THE SECOND STAGE, THE S4B ITSELF. THE CREW WILL BE OPERATING THOSE FROM THE CABIN THROUGH LOGIC CIRCUITS DOWN THROUGH THE INSTRUMENT UNIT WHICH IS THE PRINCIPAL ELECTRONIC ELEMENT JOINING THE BOOSTER AND THE SPACECRAFT. THAT EVENT OF COURSE IS PRESENTLY PROGRAMMED FOR 2 HOURS AND 55 MINUTES; WE ARE AT 2 HOURS AND 30 MINUTES RIGHT NOW. WE SHOULD GET SOME REPORTS ON THE ATTITUDES AS WE MOVE ACROSS AUSTRALIA AND WE'LL JUST LEAVE THE LINE OPEN.

CAP COM APOLLO 7, HOUSTON.

SC ROGER HOUSTON, GO AHEAD.

CAP COM WAIT WALLY. I'M SORRY; WE'LL WAIT TILL YOU GET THROUGH WITH THIS BEFORE WE TAKE OVER HERE.

SC ROGER; WE'RE RIGHT IN IT.

CAP COM I'M SORRY.

HANEY THE APOLLO 7 CREW IS CONTROLLING THE TOTAL SPACECRAFT AND BOOSTER COMBINATION AT THIS TIME THROUGH THE THRUSTERS ON THE S4B. HERE IS SCHIRRA.

SCHIRRA PITCHING UP.

CAP COM STOP.

SC DID YOU GET THAT?

CAP COM ROGER; WE COPY.

SC 3, 2, 1 MARK.

CAP COM MINUS ROLL..

SC ISN'T ENOUGH TO GRAB.

SC 90 DEGREES.

CAP COM UP FOR 5 DEGREES.

SC 3, 2, 1 MARK.

CAP COM NEXT WILL E THRUST ROLL FOR 5 DEGREES.
3, 2, 1 MARK.

SC ROGER, COMING BACK IN.

CAP COM IT'S STANDING VERY WELL.

CAP COM 3, 2, 1 MARK. VERY GOOD. MINUS YAW
FOR 3 DEGREES. 3, 2, 1 MARK.

SC THANK YOU. (GARBLE)
 CAP COM 3, 2, 1 MARK.
 SC RIGHT ON IT.
 CAP COM TOUCH OFF AT 3 DEGREES. 3, 2, 1 MARK.
 SC ROGER, COMING INTO IT.
 SC THERE'S IS MUCH (GARBLE) WITH THIS THING.
 CAP COM 3, 2, 1 MARK. S4B TEST COMPLETE. BEAUTIFUL. REAL FINE; OUTSTANDING. YOU WANT TO HIT YOUR LOGIC DOWN SO WE CAN LOOK AT THAT?
 SC SECOND LOGIC ON. LOGIC ON.
 CAP COM OKAY, WE COPY. AND AFTER CARNARVON AIR WHICH WE'LL LOSE YOU HERE IN ABOUT 2 MINUTES, WE ARE GOING TO DO SOME REMOTING THROUGH AIRA TO GET, COMPLETE THIS DTO.
 SC VERY GOOD. (GARBLE) S4B (GARBLE).
 CAP COM OKAY.
 SC INTERESTING SIDE LINE - WHEN THE POWER (GARBLE) FAILED.
 CAP COM OKAY APOLLO 7, YOU'RE GO FOR PR.
 SC THERE YOU ARE.
 CAP COM RVR
 SC WE CAN SEE ON THE NIGHT SIDE, THE APS THRUSTING ON THE S4B.
 CAP COM HOW SO?
 CAP COM AS A RULE, FLIGHT'S JUST LIKE GEMINI?
 SC IT'S - PRETTY GOOD BLOB OF LIGHT; IT'S SORT OF A YELLOW ORANGE LIGHT.
 CAP COM ROGER..
 SC OKAY, PICK UP THAT TAPE.
 CAP COM APOLLO 7, WHEN YOU ARE DUMPING SOME OF OUR TAPES, WE'LL BE GOING LIVE ON SOME OF THESE THINGS TO MAKE SURE WE HAVE COMPLETE COVERAGE.
 SC OKAY.
 SC DIRECT RCS ON. THAT'S ON. CONTROL SCS. D MAKE MADE MODES ALL FOR 82. SCS CHANNELS; 4 OF THEM ON. (GARBLE) AT THE RATE COMMAND. THINK COMMAND ON 3. TAPE RECORDER RECORD. THAT'S THE (GARBLE) STAND BY FOR THEIR (GARBLE) ON THAT.. (GARBLE) TDP CIRCUIT POWER, AC1 (GARBLE). CIRCUIT BREAKERS EDS, THREE OF THEM CLOSED. (GARBLE) TEST LOGING VERIFIED. ES POWER ON. THAT WOULD BE DELTA V COUNTED AS ZEROED.
 COMM AIRA 2, GO REMOTE.
 CAP COM WE CALL FOR EDT TO BE SENT HERE.
 COMM AIRA 2; THERE IS 2 WAY LOCK; AIRA 2, THERE IS 2 WAY LOCK.
 CAP COM APOLLO 7 THROUGH AIRA; HOW DO YOU READ?
 SC DAMN GOOD JACK; HOW ARE YOU?
 CAP COM (GARBLE) FLY BY.
 CAP COM OKAY, WALLY, AIRA 2 HAD THIS FOR ABOUT 10 MINUTES HERE AND THEN WE'LL PICK UP AIRA 3 FOR ABOUT ANOTHER 10 MINUTES.

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 2:28:56 32/3

SC VERY NICE (GARBLE).
CAP COM DO YOU THINK YOU'LL LIKE THOSE REA'S THERE?
SC JACK, CAN YOU VERIFY THAT THE TAPE RE-
CORDER HERE AND WE'LL GO TO HIGH PITCH RATE FOR THE S4B
MANEUVER?

CAP COM OKAY, STAND BY.
SC WE'RE RUNNING THROUGH THEM.
CAP COM YOU GOING TO WANT ME TO (GARBLE) HIGH
PITCH RATE?

CAP COM OKAY, APOLLO 7 - E COM TELLS ME THEY
WILL CONTROL IT FOR DEPTH.

SC (GARBLE) 34 DEPTH.
HANEY THIS IS APOLLO CONTROL, HOUSTON. THE
CREW HAS COMPLETED THE MANEUVERS USING THE S4B THRUSTERS;
YOU HEARD WALT CUNNINGHAM GOING THROUGH THE COUNTDOWNS AND
GIVING WALLY SCHIRRA EACH OF THE ANGLES AND IN ESSENCE,
AMOUNTED TO GOING TO 5 DEGREES IN EVERY ATTITUDE VISUAL AND
YAW IN THESE TWICE. WALLY SEEMED IMPRESSED WITH THE HANDLING
CHARACTERISTICS OF THIS NEARLY 100 FOOT COMBINATION OF BOOSTER
AND SPACECRAFT. WE ARE NOW REMOTING THROUGH A SERIES OF
AIRCRAFT WHICH ARE STRUNG OUT ACROSS THE, OR FLYING IN
LARGE SQUARE PATTERNS IN THE SOUTHWEST ATLANTIC, SOUTHWEST
PACIFIC. WE SHOULD HAVE CONTINUOUS COMM WITH THE SPACECRAFT
UP THROUGH HAWAII. HAWAII IS TO ACQUIRE; STAND BY ONE HERE.
HAWAII IS TO ACQUIRE AT 2 HOURS, 53 MINUTES INTO THE FLIGHT.
IT'LL BE THEN WITHIN THE HAWAII AREA OF ACQUISITION THAT
WE WILL SEPERATE FROM THE S4B. IF THIS WERE THE LUNAR MISSION,
THAT IS APPROXIMATELY THE POINT WHERE WE MIGHT VERY WELL
IGNITE THE S4B OVER THE LONG BURN OUT TO THE MOON TO PUT US
ON A LUNAR TRAJECTORY. AT 2 HOURS, 39 MINUTES INTO THE FLIGHT,
THIS IS APOLLO CONTROL STANDING BY FOR ANY ADDITIONAL COMM.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 023856 33/1

COMM CALLING ARIA 3 AIRCRAFT.
CAPCOM APOLLO 7, THIS IS HOUSTON THROUGH
ARIA 3, OVER.
SC (GARBLE)
CAPCOM WE CAN READ YOU ABOUT 1 BY, WALLY.
APOLLO 7, HOUSTON THROUGH ARIA 3. HOW DO YOU READ NOW?
SC (GARBLE)
CAPCOM ROGER, YOU'RE NOW COMING IN ABOUT 3 BY
3.
HANEY THIS IS APOLLO CONTROL HOUSTON, 2 HOURS,
45 MINUTES INTO THE FLIGHT AND IT'S UNLIKELY THAT WE WILL
HAVE ANY ADDITIONAL COM. DURING THIS PERIOD, SO WE WILL
TAKE THE CIRCUIT DOWN NOW.

END OF TAPE

HANEY THIS IS APOLLO CONTROL HOUSTON 2 HOURS 55 MINUTES INTO THE FLIGHT, AND JUST 30 SECONDS AGO, PRECISELY AT 2 HOURS AND 55 MINUTES, THE CREW REPORTED THEY HAD SEPARATED FROM THE S4B. WE ARE IN CONTACT OVER HAWAII, AND LETS LISTEN FOR CONVERSATION.

SC I CAN SEE A THRUSTER FIRING ACTION IN DAYLIGHT.

CAPCOM ROGER, COPY.

HANEY THIS IS APOLLO HOUSTON, FROM THE GROUND WE KNOW THAT THE SPACECRAFT IS PITCHING OVER, TURNING AROUND, AND HAVING A GOOD LONG LOOK.

SC (GARBLE) WAY DOWN LOOKS LIKE PIECES OF CHAFF. I WOULD ASSUME THAT CAME FROM THE SEPARATION OF THE S4B.

CAPCOM ROGER, I UNDERSTAND.

SC I ASSUME THAT SHE IS STILL THERE THEN. TOM, WE'VE GOT SAME OLD (GARBLE) WE PITCHED OUT.

CAPCOM OKAY. LOOKS LIKE YOU ARE GOING STRAIGHT IN.

SC IT'S ABSOLUTELY BEAUTIFUL HERE AND WE GOT A LOT OF LOOSE PARTICLE CHAFF SITTING AT ABOUT -

SC LOOK AT IT $\frac{1}{2}$

SC CHAFF SEEMS TO BE ORIENTED MOSTLY BETWEEN 3 O'CLOCK AND 5 O'CLOCK FROM MY REPORT OF VIEW IN THE RIGHT SEAT AND BETWEEN 9 O'CLOCK AND 12 O'CLOCK. THE OTHER TWO QUADRANTS ARE RELATIVELY CLEAN AND THE SLA PANEL AT THE TOP, LEFT, AND BOTTOM ARE OPENED AT I WOULD GUESS TO BE ABOUT A 45 DEGREE ANGLE AND THE SLA PANEL ON THE RIGHT IS JUST OPENED MAYBE 30 DEGREES AT THE VERY BEST.

CAPCOM ROGER. LOOKS LIKE YOU ARE LOOKING AT A FOUR JAWED ANGRY ALLIGATOR.

HANEY APOLLO CONTROL HOUSTON HERE. THAT IS WALT CUNNINGHAM GIVING THAT REPORT ON THE POSITION OF THE SLA PANELS. HE IS IN CONVERSATION WITH TOM STAFFORD WHO IS AN EXPERT ON ANGRY ALLIGATORS FROM THE GEMINI DAYS. THE CREW IS SIMULATING A DOCKING APPROACH AT THIS TIME IN TO THE SLA AREA. THEY WON'T GO IN SO CLOSE AS TO TOUCH IT, BUT THEY WILL OPERATE IN THE AREA. THEY ARE TAKING PICTURES AND IN GENERAL, THEY WILL FLY A FORMATION WITH THE S-IVB FOR THE NEXT 10 OR 15 MINUTES. LET'S CONTINUE THE MONITOR.

CAPCOM APOLLO 7, HOUSTON. GO AHEAD AND GET THE EDS POWER SWITCH OFF IF YOU WANT TO.

CAPCOM APOLLO 7, HOUSTON.

CAPCOM HELLO, APOLLO 7, THIS IS HOUSTON, OVER.

CAPCOM HUNTSVILLE M&O, THIS HOUSTON CAPCOM.

HTV HOUSTON, HUNTSVILLE M&O, GO.

CAPCOM ROGER. ARE WE GETTING THROUGH TO

APOLLO 7?

HTV WE CANNOT ACQUIRE THE SPACECRAFT PRES-

HTV ENTLY WITH S-BANDS, STANDBY.
 CAPCOM ROGER.
 HTV HOUSTON, HUNTSVILLE. WE HAVE AOS
 APPARENTLY WITH S-BAND, EXPERIENCE A DROP OF SIGNAL FROM
 HANDOVER, HAWAII, TO HUNTSVILLE.
 HANEY THIS IS APOLLO CONTROL HOUSTON 3 HOURS
 AND 2 MINUTES INTO THE FLIGHT. THE SHIP HUNTSVILLE, WHICH
 IS PARKED BETWEEN HAWAII AND THE COAST OF CALIFORNIA, IS
 EXPERIENCING SOME DIFFICULTY APPARENTLY WITH PATCHING US
 THROUGH, SO OUR - WE DO HAVE A VOICE COMMUNICATION DROP
 OUT WITH THE SPACECRAFT. THE COMBINATION OF THE CALIFORNIA
 STATION AND/OR GUAYMAS, MEXICO STATION SHOULD ACQUIRE JUST
 ANY SECOND AND WE WOULD LOOK FOR CONSIDERABLE IMPROVEMENT
 IN THE COMMUNICATION. THE CREW HAD TURNED AROUND, THEY
 WERE TAKING A CLOSE LOOK AT THE LARGE SLA PANELS, WHICH
 ARE - THE FOUR OF THEM ARE OPENED UP. THEY ARE PHOTOGRAPH-
 ING THEM, AND CUNNINGHAM REPORTED SOME CHAFF. AS YET WE
 HAVEN'T BEEN ABLE TO IDENTIFY THE SOURCE OF THE CHAFF IN
 THE AREA. NO PROBLEM, BUT HE DID REPORT IT. HE ALSO
 REPORTED SEEING THRUSTER ACTION IN THE DAYLIGHT. WE ARE
 NOW, I BELIEVE, ATTEMPTING TO GO THROUGH GUAYMAS, LETS GO
 BACK TO THE REPORT.
 CAPCOM ROGER.
 CAPCOM APOLLO 7, HOUSTON. OVER.
 SC ROGER HOUSTON GO, APOLLO 7.
 CAPCOM ROGER. EVERYTHING GOING OKAY?
 SC YES, JUST FINE. WE'VE GOT A (GARBLED)
 OUT THERE ABOUT A COUPLE OF 300 FEET.
 CAPCOM OKAY. YOU MIGHT CHECK YOUR EBS POWER
 SWITCH OFF, IF YOU WANT TO.
 SC IT IS OFF. HAVE YOU GOT AN UPDATE
 FOR US FOR THE MANEUVERS?
 CAPCOM ROGER, WE SURE DO. ARE YOU READY TO
 COPY IT?
 SC NO - ABOUT 10 SECONDS.
 CAPCOM ROGER, GIVE ME A CALL WHEN YOU ARE
 READY.
 SC APOLLO 7, GO AHEAD WITH YOUR UPDATE.
 CAPCOM ROGER. IT'S A PHASING MANEUVER, 003
 20 ALL BALLS NOUN 82 NA 1641 PLUS 12224 00057 32538 NOUN
 48 NA 0 PLUS 16 AND ROLL PITCH IN YAW ARE 183

END OF TAPE

CAPCOM - YAW OF 183, 299, 002, REMARK FPS, HEADS DOWN, RETROGRADE -X STRUCTURES. YOU SHOULD BE IN YOUR RETROATTITUDE BY 3 + 16 + 30.

SC ROGER. UNDERSTAND UPDATE FOR SEP MANEUVER 0032000, 164L CHECK 12340005732538, LINE 38 (GARBLE)002, FPS HEADS DOWN, RETRO AND USE -X STRUCTURES.

CAPCOM ROGER. I DIN'T GET YOUR PITCH, BUT I WANT TO GIVE IT TO YOU AGAIN. THAT IS 299 FOR THE PITCH.

SC ROGER.

CAPCOM APOLLO 7, HOUSTON.

CAPCOM HELLO APOLLO 7, HOUSTON.

SC HOUSTON, GO.

CAPCOM OKAY. WE EXPECT SOME NONPROPULSIVE VENTING UP NEAR THE FRONT END OF THE S-IVB BETWEEN 3 + 08 AND 3 + 09. THE BOOSTER WILL MAKE A RETROGRADE MANEUVER AT 3 + 16 + 55.

SC ROGER. UNDERSTAND NONPROPULSIVE VENTING BETWEEN 08 AND 09 AND THE BOOSTER WILL BE RETROVENTING AT 31655.

CAPCOM ROGER. THAT WHEN THE MANEUVER WILL BE COMMANDED. YOU SHOULD BE ABLE TO SEE IT MANEUVER AROUND.

CAPCOM APOLLO 7, HOUSTON. CONFIRM THAT YOUR TVC SERVO POWER NUMBER 1 IS OFF.

SC IT IS OFF.

CAPCOM ROGER.

SC THERE IS QUITE A SMALL TYPE DEBRIS STILL INSIDE THE S-IVB. IS THAT GONE?

CAPCOM (GARBLE) AFTER THAT.

SC SEEMS TO BE COMING OUT. WHAT PART IS IT IN?

CAPCOM OKAY.

SC PAUL, THE INTERNAL STRUCTURE LOOKS JUST FINE. THERE IS ONE SET OF CORDS THAT RUNNING AROUND - ONE SET OF CORDS RUNNING AROUND THAT SEEMS TO BE GOING TO A PANEL THAT ISN'T OPEN TOO FAR.

CAPCOM OKAY. GET SOME PICTURES.

HANEY THIS IS APOLLO CONTROL HOUSTON, WITH THE SPACECRAFT ALMOST OVER THE CENTRAL UNITED STATES. WE ARE GETTING A PRETTY DESCRIPTIVE VIEW OF WHAT THE S-IVB LOOKS LIKE, PRIMARILY FROM WALT CUNNINGHAM. HE HAS REPORTED AMONG OTHER THINGS, THAT ONE OF THE FOUR SLA PANELS IS NOT OPEN COMPLETELY. THEY SHOULD BE BACK TO NEARLY 90 DEGREE POSITION, I THINK ONE OF THEM IS OPEN ONLY A THIRD OR A HALF THE WAY. I HEARD A FIGURE EARLIER OF 30 DEGREES THAT WILL HAVE TO BE CONFIRMED LATER. IN SEVERAL TIMES, CUNNINGHAM HAS COMMENTED ON THE VENTING, THE LOX VENTING FROM THE S-IVB. APPARENTLY IT'S A PRETTY SPECTACULAR SHOW. WE WILL CONTINUE TO MONITOR AS THEY MOVE ACROSS THE STATES.

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 03:05:20 35/2

SC WE HAVE GOT A (GARBLE) IN THE BACKOUT OF
THE S-IVB. IT SHOULD HAVE BREEZED RIGHT ACROSS IT. WE
COULD HAVE A - UNFORTUNATELY, IT'S TOO CLOUDY FOR US TO
LOOK AT, TOM, BUT NEW ORLEANS LOOKS GOOD.

CAPCOM ROGER. UNDERSTAND YOU CAN SEE NEW
ORLEANS.

SC ROGER. WE GOT A SHOT OF THE BOOSTER
ACROSS THE LAKE CUTTING ABOUT.

CAPCOM ROGER, GOOD SHOW.

SC LOOKS LIKE THE ENTIRE US IS CLOUD COV-
ERED UNTIL YOU GET OVER HERE.

CAPCOM WE COPY.

SC LOOKING RIGHT DOWN AT THE CAPE. WE
CAN GET A PICTURE OF IT IN THE BACKGROUND.

CAPCOM UNDERSTAND YOU CAN GET A PICTURE OF
THE CAPE IN THE BACKGROUND.

SC CAPE IS NOT CLEAR.

CAPCOM ROGER.

END OF TAPE

SC (GARBLE) COUNT DOWN.
CAP COM DID YOU GET A PICTURE OF THEM OVER
THE CAPE IN THE BACKGROUND.
SC THE CAPE (GARBLE)
CAP COM ROGER.
SC GOT THEM LOUD AND CLEAR.
CAP COM ROGER, YOU ON TOP OF THE BOOSTER AT THIS
TIME WALLY?
SC SAY AGAIN.
CAP COM YOU ON TOP OF THE BOOSTER?
SC THE RIGHT PROPELLA; WE GOT SOME REAL
GOOD STUFF HERE.
CAP COM GOOD SHOW. OKAY, IN ABOUT A MINUTE, THE
BOOSTER SHOULD START IT'S RETROGRADE MANEUVER.
SC THE BOOSTER IS - ENGINE IS SET UP FACING
THE ATLANTIC OCEAN, WE'RE - WE'RE POINTING STRAIGHT DOWN.
CAP COM OKAY.
SC GOT A VERY SLOW RATE GOING - ON THE
BOOSTER.
CAP COM OKAY.
SC EXCEPT FOR THAT - ONE PANEL - EVERYTHING
LOOKS LIKE JUST AS YOU'D EXPECT IT TO BE ON THAT S4B PLOT;
IT'S ON IT.
CAP COM OKAY, SOUNDS REAL GOOD.
CAP COM OKAY, WE'VE GOT ABOUT 3 MINTUES TO GO
TO THE PHASING MANEUVER AND ARE YOU ALL SET UP TO ROLL,
PITCH AND YAW?
SC WE'VE GOT IT ALL RUNNING WELL AND WE
HAVE (GARBLE) SMOOTHLY.
CAP COM ALL RIGHT.
CAP COM APOLLO 7, HOUSTON.
SC YES.
CAP COM ROGER. I - OUR (GARBLE) JUST CONFIRMED
THAT OUR COMMERCIAL PITCH OUT PER FEET IS 299 DEGREES. OKAY,
I'LL GIVE YOU A MARK AT 60 SECONDS. 2, 1, MARK. T MINUS
60 SECONDS. MINUS 30 SECONDS. 10 SECONDS.
SC VERY COMPLETE.
CAP COM ROGER. APOLLO 7, HOUSTON.
SC ROGER.
CAP COM ROGER; YOU CAN GO AHEAD AND TERMINATE
PROGRAM 47, IF YOU WANT TO.
SC ROGER; WE HAVE TERMINATED. WE ARE TRY-
ING TO GET A FEW MORE PICTURES AFTER WE SET; WE HAVE MADE
THE BURN ONE TENTH OF A SECOND ALREADY.
CAP COM ROGER; THAT'S REAL GOOD; THANK YOU.
SC JOHN, WE ARE B47 RUNNING THERE A COUPLE
OF MINUTES EARLY AND WE PICKED UP ABOUT A FOOT AND A HALF
PER SECOND AND REGISTERED 2 - I GUESS YOU CAN PICK THAT UP
ON YOUR DOWN RATE COMMAND EXCEPT I DIDN'T CONSIDER WHETHER
YOU WOULD WANT TO RE-DO THE STATE BREAKER OR NOT.

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 3:15:30 36/2

CAP COM OKAY, GOOD. LOOK, WE'RE GONNA HAVE YOU
AT (GARBLE) IN JUST A COUPLE OF MINUTES AND WE'D LIKE TO GET
A PPOP READING.

SC OKAY. STAND BY.
CAPCOM AND ALSO - WHAT WAS YOUR CLOSEST POINT
OF APPROACH WALLY TO THE 4B?

SC FOR ABOUT 4 OR 5 FEET.

CAPCOM THAT'S 4 OR 5 FEET.

SC (GARBLE) WE'RE (GARBLE) DOCKED CHANNEL.
TO DROP THINGS OFF.

CAPCOM ROGER.

END OF TAPE

HANEY THIS IS APOLLO CONTROL, HOUSTON 3 HOURS, 25 MINUTES INTO THE FLIGHT AND WE HAVE MOVED OUT OF THE ACQUISITION ZONE OF THE ANTIGUA STATION. WE SHOULD ACQUIRE ASCENSION IN A VERY FEW MINUTES. YOU HEARD SCHIRRA SAY THAT HE HAD PULLED UP WITHIN 4 TO 5 FEET OF THE S4B AND HAD DONE A VERY CLOSE INSPECTION OF THE SLA PANELS. THE - 3 OF THE PANELS APPEAR TO HAVE OPENED FULLY WHICH IN THE FULLY DEPLOYED POSITION IS A 45 DEGREE ANGLE; ONE OF THE PANELS STOPPED APPARENTLY AT ABOUT 30 DEGREES. ON LATER MISSIONS WE HAVE OR THE PRESENT THINKING IS TO SIMPLY JETTISON THE PANELS ALL TOGETHER SO THIS IS SORT OF A ONE-TIME CONSIDERATION. WE - THE REASON FOR THE JETTISONING OF THE PANELS IN FUTURE MISSIONS IS A POINT WHICH HAS BROUGHT THE THINKING TO THAT CONCLUSION. IT HAS TO DO WITH THE EXHAUSTING PINGEMENT ON THE PANELS AS THE SPACECRAFT LOOKS DIRECTLY INTO THE HOLE, OR PREPARES TO MAKE THE DOCKING MANEUVER WITH THE LUNAR MODULE. WE WILL ASSUME THAT THE CREW HAS CONCLUDED IT'S FIRST PHASING MANEUVER OF 6.8 FOOT PER SECOND BURN WHICH WILL HAVE A PHASING OR A SHAPING AFFECT ON THE ORBIT, A VERY MODERATE ONE, AND IT WILL MOVE IT SOME DISTANCE, I DON'T JUST YET KNOW HOW MUCH DISTANCE, AWAY FROM THE S4B. AT 3 HOURS, 27 MINUTES INTO THE FLIGHT, THIS IS APOLLO CONTROL IN HOUSTON.

END OF TAPE

APOLLO 7 MISSION COMMENTARY 10/11/68 CST 1536 MC38/1

CAPCOM APOLLO 7, HOUSTON THROUGH ASCENSION
SC GO AHEAD, HOUSTON
CAPCOM ALL RIGHT, ROGER, WE'RE STANDING BY
CLEAR OF PPO2 READING.
SC ROGER, OUR PPO2 IS READING 18 OVER 182
180, I GUESS.
CAPCOM ROGER, COPY 182. APOLLO 7 HOUSTON,
COULD YOU READ US OUT YOUR READING FOR CABIN PRESSURE?
SC ROGER, CABIN PRESSURE IS DOWN TO 5.2
AND STEADY, SOMETHING LIKE THAT.
CAP COM OKAY, COPY, THANK YOU.

END OF TAPE

HANEY WE HAVE BEEN TRYING CAPSULE COMMUNICATOR JACK SWIGERT HAS BEEN TRYING TO REACH APOLLO 7 REMOTING THROUGH TANANARIVE WITHOUT SUCCESS, WE APPARENTLY HAVE SOME PROBLEM AS YET NOT RESOLVED THROUGH THAT TANANARIVE STATION AND WE'VE HAD SOME OTHER COMMUNICATIONS PROBLEMS ON THE THE CIRCUIT, THESE ARE NOT UNUSUAL AND WE FEEL VERY CONFIDENT IN A REV OR TWO WE'LL FIGURE OUT THE RIGHT COMBINATIONS OF ANTENNAS AND SWITCHES AND BE UP TO SPEED IN ALL STATIONS AROUND THE EARTH. THE CREW DURING THIS PERIOD AS THEY MOVE ACROSS THE INDIAN OCEAN WILL LET US CHECK THE FLIGHT PLAN HERE. AIR. THEY'RE COMING IN TO A SUNSET - OR THEIR IN THE NIGHT - THEY ARE IN DARKNESS. DONN EISELE IS DOWN IN THE LOWER EQUIPMENT BAY AT HIS G AND N STATION AND THEY'LL BE CHECKING ELECTRICAL VOLTAGES VERY CAREFULLY AND REPORTING TO THEM ON THOSE CHECKS OVER AUSTRALIA AND THAT LOOKS LIKE ABOUT THE EXTENT OF THE ACTIVITY FOR NOW. WE SHOULD HEAR FROM THEM WHEN THEY COME IN TO RANGE OF CARNARVON AT 4 HOURS AND 5 MINUTES INTO THE MISSION. THIS IS APOLLO CONTROL HOUSTON.

END OF TAPE

HANEY THIS IS APOLLO CONTROL, HOUSTON 4 HOURS,
4 MINUTES INTO THE FLIGHT. WE ARE IN TOUCH WITH APOLLO VIA
CARNARVON AND WALT CUNNINGHAM IS GOING THROUGH THE CIRCUIT
BREAKER CHECK WITH US TO THE PYROTECHNIC LINES. WE WILL TUNE
IN ON THE CONVERSATION NOW

CAPCOM APOLLO 7, HOUSTON THROUGH CARNARVON.

SC YOU ARE LOUD AND CLEAR.

CAPCOM YOU ARE LOUD AND CLEAR, ALSO.

SC HOUSTON, THIS IS APOLLO 7. I CHECKED THE
BURNER 3 ON MAIN B IN AC BUST 2 ALL PHASES NORMAL. I CHECKED
CONVERTER 3 ON MAIN A, AC 1, ALL PHASES NORMAL. THIS COMMENCE
THE ACS REDUNDANT COMPONENT CHECK, WE NEED YOUR COOPERATION
FOR MANIFOLD PRESSURE READOUT.

CAPCOM ROGER, WE COPY.

SC IF YOU ARE READY ON THE GROUND, WE ARE
GOING TO START CHECKING OUR (GARBLED)

CAPCOM OKAY, APOLLO 7, HOUSTON, WE ARE READY TO
COPY.

SC MAIN BRAKE, D VALVE CLOSED. EMERGENCY
CABIN PRESSURE VALVE TO 1. EMERGENCY CABIN PUSH TO TEST PUSH
BUTTON PUSH. 02 FLOW WENT HIGH, CAN YOU GIVE US A READING ON
THE AMOUNTABLE PRESSURE?

CAPCOM ROGER, 105.

SC THANK YOU. MAIN BRAKE D VALVE OPEN.
MAIN BRAKE A VALVE CLOSED. EMERGENCY CABIN PRESSURE VALVE TO
2. EMERGENCY CABIN PUSH TO TEST PUSH BUTTON PUSH. OKAY,
IT IS WORKING NOW THAT WE HAVE MISSED THEM.

CAPCOM 104

SC 104. MAIN BRAKE A VALVE OPEN NOW.
(GARBLED) VALVE CLOSED. WE INTEND TO FLOW OUR SECONDARY RAD-
IATORS WHEN WE GET THAT FAR ON THIS LIST.

CAPCOM ROGER, COPY

SC WE WENT A LONG PERIOD OF TIME HERE WITH
TAPE VOICE AND DATA PHONE. I THINK IT WOULD BE GOOD IF WE
GO OVER THE HORIZON AND YOU DON'T GET THAT THING BACK INTO A
OPERATING MODE, LET US KNOW IF YOU CAN.

CAPCOM ROGER.

SC WE'RE ABSOLUTELY COUNTING ON BEING ABLE TO
RECORD THE DATA ON THE TAPE.

CAPCOM OKAY. OKAY, APOLLO 7, HOUSTON. WE'RE
NOT GOING TO BE ABLE TO FINISH THE DUMP HERE OVER CARNARVON
SO YOU'LL STILL BE BARBER POLE TO HAWAII. WE'LL FINISH THE
DUMP AT HAWAII THEN.

SC ROGER, UNDERSTAND IN SOME CASES IT WOULD
SEEN THAT IT WOULD BE DESIRABLE FOR US TO GO AHEAD AND HIT
COMMAND RESET AND GET THAT TAPE MOVING FORWARD. SO IN ORDER

SC TO AVOID ANY CONFUSION IN DUMPING OR IN
WRITING OVER STUFF YOU HAVEN'T DUMPED, PLEASE LET US KNOW.
CAPCOM OKAY, WILL DO.
SC PYRO B, 37 AND PYRO A (GARBLED) CIRCUIT
BREAKERS ARE OUT.
CAPCOM OKAY, BATT C VOLTAGE.
SC BATT C'S READING 37
CAPCOM ALL RIGHT CHANGE IN VERTER PHASE VOLTAGES.
SC ALL VERTER PHASE VOLTAGES ARE NOMINAL.
I WILL CALL NOMINAL AT A HUNDRED
CAPCOM APOLLO 7, HOUSTON, 1 MINUTE LOS CARNARVON
AND WE HAVE ARIA COVERAGE HERE FOR ANOTHER 10 MINUTES.
SC ROGER, WE ARE HERE, GO AHEAD.
CAPCOM ARIA 3 GO REMOTE. APOLLO 7, HOUSTON
THROUGH ARIA 3. APOLLO 7 THROUGH HOUSTON, THROUGH ARIA.
APOLLO 7, HOUSTON THROUGH ARIA STANDING BY
ARIA 3 (GARBLE)
CAPCOM APOLLO 7, HOUSTON THROUGH ARIA 3.
HANEY THIS IS APOLLO CONTROL AT HOUSTON.
APPARENTLY NOT MUCH LUCK THROUGH THE ARIA AIRCRAFT NORTH OF
AUSTRALIA SO WE WILL TAKE A LINE DOWN AT THIS TIME. THE CREW
WE SHOULD NEXT HEAR FROM THE CREW WHEN THEY REACH HAWAII AT
4 HOURS AND 30 MINUTES INTO THE FLIGHT AND AT THAT TIME THEY
WILL CONDUCT A BIAS CHECK ON SOMETHING CALLED THE PIPA, THE
P I P A. PIPA STANDS FOR THE PULSED INTEGRATING PENDULOUS
ACCELEROMETER. I HOPE EVERYBODY COPIED THAT. IT IS A PART
OF THE GUIDANCE SYSTEM AND RELATED TO PLATFORM KINDS OF DRIFT
IN PAST SPACE FLIGHTS. AT LEAST THE CHECK THEY WILL PERFORM
IS THAT SORT OF CHECK OVER HAWAII AND ON ACROSS THE STATES.
AT 4 HOURS AND 15 MINUTES INTO THE FLIGHT, THIS IS APOLLO
CONTROL, HOUSTON

END OF TAPE

HANEY THIS IS APOLLO CONTROL HOUSTON 5 HOURS 11 MINUTES INTO THE FLIGHT. WE HAVE SOME TAPE BACKED UP FROM THE LAST STATESIDE PASS BEGINNING OUT IN HAWAII. IT WAS A FAIRLY QUIET PASS AS THE CREW WAS EATING ITS FIRST MEAL IN SPACE, BUT IN THE COURSE OF THE PASS, SCHIRRA COMMENTED THAT HE HAD HAD THE - THAT HE HAD CHALKED UP THE - HAD HIS FIRST CUP OF COFFEE IN SPACE. IN THIS PARTICULAR SPACECRAFT WE HAVE WATER AVAILABLE WHICH IS AS WARM AS 150 DEGREES AND WALLY INSISTED ON TAKING SOME COFFEE ALONG ON THE FLIGHT, AND OF COURSE HE HAD TO SQUEEZE IT INTO A BAG AND I AM SURE IT WASN'T THE EASIEST THING TO DRINK BUT HE INDICATED THAT IT WAS VERY ENJOYABLE. THE CREW COMPLETED THEIR FIRST MEAL IN THE COURSE OF THE PASS AND THE CURRENT ORBITAL NUMBERS READ LIKE THIS: 165 NAUTICAL MILES BY 124 NAUTICAL MILES. THAT IS AS A RESULT OF THE INITIAL MANEUVER BY THE COMMAND MODULE AND THE COMMAND MODULE PRESENTLY IS LEADING IS SLIGHTLY BELOW THE S-IVB. IT IS ABOUT 15 MILES SEPARATION DISTANCE BETWEEN THE TWO AND THAT IS GROWING - THAT IS GROWING AT A SMALL RATE - BUT OVER A PERIOD OF PERHAPS 8 TO 10 12 HOURS THE TWO WILL BE SEPARATED BY ABOUT 100 MILES. AGAIN THE ORBITAL NUMBERS ARE 165 MILES BY 124. BOTH NAUTICAL READINGS. SCHIRRA DID REPORT THAT THEIR IVA MANEUVERS - THAT IS, THEIR MOVING ABOUT - THE CREW MOVEMENTS WITHIN THE SPACECRAFT CHANGING COUCHES, DONN EISELE MOVING DOWN TO HIS STATION IN THE LOWER EQUIPMENT BAY DID NOT SEEM TO BE GENERATING ANY CHANGE - DELTA V KINDS OF CHANGES WITHIN THE SPACECRAFT. IN OTHER WORDS IT WASN'T ACCOUNTING FOR ANY GREAT BIAS OR ACCELERATIONS OR DEVIATIONS FROM THEIR PLOTTED FLIGHT PATH. AS I SAID, WE HAVE GOT ABOUT 10 MINUTES OF TAPE BACKED UP AND WE WILL PLAY IT FOR YOU NOW.

CAPCOM APOLLO 7, HOUSTON. 40 SECONDS TO LOS. WE WILL HAVE A - ABOUT A 3 MINUTE LOSS OF COMM HERE SINCE HUNTSVILLE LOST THE VOICE. WE WILL PICK YOU UP OVER CALIFORNIA ABOUT 38.

SC

ROGER.

HTV

HOUSTON CAPCOM, HUNTSVILLE.

CAPCOM

GO AHEAD.

HTV

... WE BELIEVE WE HAVE VOICE BACK.

CAPCOM

TRY REMOTING VHF? I DON'T - I DON'T --

HTV

WOULD YOU TRY CONTACTING THE CAPSULE VHF?

CAPCOM

OKAY. WELL I TRANSMIT SIMULTANEOUSLY.

APOLLO 7. HOU CAPCOM CREW TO HUNTSVILLE. HOW DO YOU READ? OKAY, BYE BYE WALT. WE JUST WANTED TO MAKE A VOICE CHECK THROUGH HUNTSVILLE.

SC

OKAY, JACK. IF WE HAVE MADE ALL OF THESE GOOD VOICE CHECKS, I WOULD LIKE TO CATCH UP UP HERE A LITTLE BIT ON OUR FOOD.

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 5:11:00 41/2

CAPCOM

SURE.

(PAUSE)

CAPCOM APOLLO 7, HOUSTON. IF YOU WILL GO TO
UP LINK TO ACCEPT, WE WILL GIVE YOU - WE WILL SEND YOU THE
STATE VECTOR TARGET LOAD AND RESUME

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 5:15:00, MC42/1

CAPCOM TO UPLINK ACCEPT WILL GIVE YOU - SEND
YOU STATE VECTOR TARGET LOAD AND REST MATCH.
SC SPEED CHECK
CAPCOM ALL RIGHT, WE'VE GOT IT. COMING UP.
SC READY TO COPY THE (GARBLE) IF YOU'VE
GOT IT.
CAPCOM I DON'T HAVE IT YET WALL, STAND BY.
SC JACK, YOU CAN TELL CHUCK ARTHUR, WE'VE
GOT A WASHER FOR HIM.
CAPCOM SAY AGAIN.
CAPCOM OKAY, I UNDERSTAND YOU HAVE A WASHER FOR
HIM.
SC THAT'S CORRECT GOT (GARBLE).
CAPCOM OKAY.
SC WE'LL TRY TO GIVE YOU SOME MORE (GARBLE).
CAPCOM OKAY.
SC YOU UNDERSTAND THEY DID THE TUMBLE
TEST IN THE PLAN.
CAPCOM ROGER.
SC 5044432 VIA SHOT FRAME 50 ON S0368
MAGAZINE M.
CAPCOM OKAY.
SC AS I POINTED OUT TO YOU IN REAL TIME WE
CANN'T RECORD RIGHT NOW.
CAPCOM ALL RIGHT.
SC HOUSTON FOR THE VMS BIAS TURN AT 146
FEET PER SECOND IN 5 MINUTES. OVER.
CAPCOM ROGER, HOW MANY FEET PER SECOND IN
FIVE MINUTES, WALLY.
SC .6
CAPCOM ROGER, I UNDERSTAND, .6.
SC THE NEGATIVE IS UNITY .6.
CAPCOM ROGER, GOT IT.
SC THAT'S ON THE DELTA V TIME.
CAPCOM ROGER, WALLY
CAPCOM APOLLO 7, HOUSTON, ALL THREE LOADS ARE IN
AND VARIFIED, WE ARE READY TO PASS UP HERE - MANEUVER PASS.
SC DO YOU COPY, BILL.
CAPCOM OKAY, 6-4008590843 MINUS 03194 PLUS ALL
BALLS PLUS 039531530 MINUS 03700497032460 MINUS 086 MINUS
0300 PLUS 2445359033200817 PAUL BALL MINUS 2687 MINUS 00376
1631180180000.
CAPCOM DO YOU STILL READ, HOUSTON.
SC I READ YOU FINE
CAPCOM OKAY, READ THAT (GARBLE) 6-4008590843
MINUS 03194 PLUS FIVE BALLS PLUS 039531530 MINUS 037004970
32460 MINUS 086 MINUS 03002445390332008170000 MINUS 6207
MINUS 037761631180180000. OVER.

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 5:15:68, MC42/2

CAPCOM ROGER, THERE'S A CORRECTION ON YOUR
NOUN 43 LONGITUDE, IT SHOULD BE MINUS 03376.
SC MINUS 03376. ROGER.
CAPCOM OKAY, AND I'M READY ON YOUR MANUAL
RETRO ATTITUDE UPDATE.
SC DO WHAT?
CAPCOM AND REMARKS WALLED ON - FOR YOUR FIXED
EDGE UPDATE THERE, STAR CHECK IS NOT VISIBLE AFTER 08 PLUS
40 PLUS 00.
SC 084000 BEFORE THEN.
CAPCOM ROGER. LET ME KNOW WHEN YOU'RE READY
TO COPY THAT S 20.9 MANUAL RETRO UPDATE.
SC READY TO COPY, GO AHEAD.
CAPCOM OKAY. READ THE - FROM TOP TO BOTTOM
6 PLUS 106 PLUS 50 ROLL 979180 PITCH 138241 YAW 360359. THE
FIRST ONE IS A DAY, SECOND ONE IS A NIGHT.
SC OKAY, NOW I'LL READ BACK RIGHT ACROSS THE
TOP LINE 6 PLUS 10 ROLL 179 PITCH 138 YAW 360 DAY, SECOND
ONE IS 6 PLUS 50 ROLL 180 PITCH 241 YAW 359 NIGHT. OVER.
CAPCOM ALL RIGHT, THAT'S GOT IT. APOLLO 7 THE
PHASING MANEUVER THAT WE DID THAT WILL PUT US 82 MILES IN
FRONT TOMORROW FOR THE RENDEZVOUS.
SC ROGER, I UNDERSTAND, 80 MILES IN FRONT
TOMORROW.
CAPCOM 82.
SC 82 MILES.
CAPCOM GO AHEAD.
SC YOU'VE HAD A REPORT ON OUR CONSTELLATION
(GARBLE) ALREADY HAVE YOU NOT?
CAPCOM NO, I'VE HAD NO AFFIRMATIVE REPORT.
SC (GARBLE) WENT VERY WELL.
CAPCOM OKAY, REAL FINE
SC THESE IN STILL.
CAPCOM ROGER.
CAPCOM APOLLO 7, HOUSTON.
SC GO AHEAD.
CAPCOM ROGER, G AND N SAYS WE ARE GETTING CLOSE
TO (GARBLE).
SC (GARBLE) WE DON'T SEEM TO BE GENERATING
ANY IVA MANEUVERS THAT THE SPACECRAFT WAS PLANNING TO.
CAPCOM ROGER, WALLY, WHAT THEY WERE INTERESTED
IN IS HOW DOWN, DOING DOWN IN THE LAB WITH RESPECT TO WORK-
ING THE NAV, YOU ANY TROUBLE FOR A POSITION.
SC AT ABOUT 2 GBI'S THAT'S ALL.
CAPCOM UNDERSTAND, 13
SC THE FLOOR DOESN'T SEEM TO HOLD ME DOWN
VERY WELL AND IT MAY BE BECAUSE OF THE STRIP THAT'S IN THE
HOSE THAT KEEPS CARRYING ME TOWARD THE OTHER END SO I'LL

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 5:15:00, MC42/3

SC FIND OUT A LITTLE BETTER I THINK AFTER
I GET THE SUIT OFF LATER, IF I COULD DO THAT.
CAPCOM OKAY.
SC AND THE PPI 2, I GAVE THAT TO YOU AT
4:40 AND IT WAS 165.
CAPCOM ROGER, WE COPIED THAT. WHAT ABOUT THE
PPA BIAS CHECK.
SC WE STOPPED THAT WHEN WE TOOK YOUR
UPDATE, WE'LL START ANOTHER ONE SHORTLY.
CAPCOM OKAY, REAL FINE.
SC (GARBLE) WE HAVE FINISHED ONE MEAL.
CAPCOM COPY, ONE MEAL.
CAPCOM APOLLO 7, HOUSTON, (GARBLE). APOLLO 7
HOUSTON WE ARE THROUGH WITH THE COMPUTER YOU CAN GO TO
BLOCK ON THE UPTAIL SWITCH IN YOU'D LIKE.
SC ROGER, BLOCK.
CAPCOM WE'RE DOING OUR SECONDARY CORP GROUP
CHECK NOW.
CAPCOM OKAY.
CAPCOM AT ABOUT 30 SECONDS FROM LOS. WE WILL
PICK YOU UP OFF ASCENSION IN ABOUT 6 MINUTES.
CAPCOM APOLLO 7, HOUSTON, THROUGH ASCENSION
STANDING BY.
SC A LITTLE FOGGING ON THE HATCH WINDOW.
CAPCOM ROGER, COPY.
SC AND WE'VE TAKEN A COUPLE OF PICTURES OF
IT. (GARBLE)
CAPCOM OKAY, COPY THAT.
SC WE'VE FLOWN THE SECONDARY RADIATORS AND
TEMPERATURE CAME DOWN RIGHT SMARTLY. WE'VE TURNED ON THE
SECONDARY COOL LIFT PUMP IT'S OFF AND THE (GARBLE) OUTLET
TEMPERATURE CAME RIGHT ON DOWN OVERSHOT TO ABOUT 35 AND
(GARBLE) AROUND 40, THERE WAS DEPRESSURE .12.
CAPCOM SOUNDS REAL GOOD, WALL.
SC FOGGING ON THE CENTER HATCH WINDOWS
(GARBLE) TEMPERATURE IS STAYING ABOUT, OH, CALL IT 55 MAKE
IT 65 AND THE DRY POLE (GARBLE) TEMPERATURE CLIMBED RIGHT
ON UP TO OH, 58 SOMETHING LIKE THAT. MAKES ME WONDER ABOUT
THE (GARBLE) WORKING.
CAPCOM ALL RIGHT.
CAPCOM APOLLO 7, HOUSTON, ABOUT 40 SECONDS TO
LOS ASCENSION.

END OF TAPE

APOLLO 7 MISSION COMMENTARY 10/11/68 CST 1725 MC43/1

CAPCOM APOLLO 7 HOUSTON THROUGH TANANARIVE
CAPCOM THIS IS APOLLO CONTROL HOUSTON, 5 HOURS
6 MINUTES INTO THE FLIGHT. THE FLIGHT DIRECTOR SUSPECTS
THE CREW IS INVOLVED WITH OTHER MATTERS AND HAS DECIDED WE
WILL NOT ATTEMPT TO CONTACT THEM BY VOICE COMMUNICATIONS
WHICH HAVE NOT BEEN THE BEST THROUGH TANANARIVE TODAY AT
THIS POINT. WE ARE ON THE FOURTH REVOLUTION AROUND THE
EARTH AND ALL EVENTS PROCEEDING VERY WELL AT THIS TIME.
THIS IS APOLLO CONTROL HOUSTON.

END OF TAPE

HANEY THIS IS APOLLO CONTROL HOUSTON, 5 HOURS, 49 MINUTES INTO THE FLIGHT. SPACECRAFT IS NEARING THE GUAM ZONE OF ACQUISITION, THE GUAM STATION TO CONTACT APOLLO 7 FOR THE FIRST TIME TODAY. BEFORE WE REACH GUAM LET'S UNLOAD ABOUT TWO TO THREE MINUTES OF TAPE WHICH WE COLLECTED DURING A SWING OVER - A SWING WHICH TOOK THE SPACECRAFT SEVERAL HUNDRED MILES NORTHWEST OF AUSTRALIA. THIS FROM CARNARVON.

CAPCOM APOLLO 7 HOUSTON THROUGH CARNARVON.

SC ROGER, LOUD AND CLEAR

CAPCOM ROGER, LOUD AND CLEAR, ALSO. SEVEN WHEN YOU WENT OVER THE HILL WE FOUND YOUR SECONDARY COOLING LOOP WAS WORKING WORKING SATISFACTORY AND EVERYTHING LOOKED GOOD ON THE PRIMARY LOOP ALSO.

SC ROGER, WE CONCUR.

CAPCOM OKAY

SC (GARBLED) THE SECONDARY RADIATOR AGAIN

WE SHOULD NOT HAVE TO PULL IT AGAIN FOR THE REST OF THE FLIGHT. THE EGRESS BEGAN TO COME WHEN THE CHECK WAS COMPLETED SATISFACTORY - I STILL FEEL LIKE ITS PART OF THE ANOMALOUS BEHAVIOUR THERE ON THE BOOSTING VALVE POSSIBLY ON THE PRIMARY LOOP. THE BACK-OFF (GARBLED) TEMPERATURE WAS RUNNING AT 58 WHEN I TURNED OFF THE EVAPORATOR.

CAPCOM ROGER, COPY, WALL. COM HERE IS SHAKING HIS HEAD.

SC ROG, WE DID CHECK THE BACK-OFF AFT TEMP END VALVE, THE COOLING CONTROL PANEL AND IT WAS AT MID HEAT SO THERE'S NOT MUCH MORE THAT CAN BE DONE THERE.

CRO ROGER, APOLLO 7 HOUSTON.

CAPCOM WALT, WE JUST WANT TO TALK OVER ON THAT PRIMARY LOOP. WAS THE PRIMARY LOOP RUNNING WHEN YOU READ THE 58 DEGREES, WAS IT IN OPERATION WHEN YOU READ AN EVAP OUT OF 58 DEGREES?

SC WHEN I FIRST READ IT, IT WAS NOT PUMPING BUT THEN IT WAS STILL WITHIN 58 TILL I TURNED THE EVAPORATOR ON. THERE WAS A GREAT DEAL OF TIME THERE BETWEEN WHEN I TURNED THE PUMPS BACK ON ON THE PRIMARY LOOP AND WHEN TO EVAP SO MAYBE ITS JUST DIDN'T GET A CHANCE TO SETTLE DOWN.

CAPCOM THAT MIGHT BE. OKAY. YOUR PRIMARY LOOP IS WORKING OKAY NOW WALL?

SC AT THE PRESENT ITS WORKING VERY FINE SINCE LIFT-OFF I WOULD - I ESTIMATE WE'VE BEEN BOILING TO SOME EXTENT MOST OF THE TIME.

CAPCOM OKAY

SC WE RAN THROUGH URINE DUMP OPERATIONS TWICE AND SEEMS TO BE DUMPING FINE SO FAR.

CAPCOM OKAY, REAL FINE.

APOLLO 7 MISSION COMMENTARY 10/11/68 5:49:00 GET MC44/2

SC JACK, THIS IS DONN, I COMPLETED THAT ALIGNMENT AT THE BEGINNING OF THIS PASS I USED NAVI AND ALPHERATZ AND WE HAD FIVE BALLS ON THE STAR DIFFERENCE AND I WENT THROUGH THE DEFINE LINE JUST TO BE SURE. ON THE COURSE OF A LINE WE HAD ABOUT HALF A DEGREE AND TWO AND A HALF DEGREES ON THE GYRO TORQUE AND ANGLE.

CAPCOM OKAY, COPY, DOC.

SC DO YOU WANT TO GO AHEAD WITH THE HYDRO-GEN PERCH, CHUCK, HEAT IS COMING OUT AT FIVE FIFTY.

CAPCOM ROG.

HANEY AND NOW WE'RE TALKING TO APOLLO 7 THROUGH GUAM AND HERE'S HOW THAT'S GOING.

CAPCOM APOLLO 7 HOUSTON THROUGH GUAM.

SC ROGER (GARBLED)

CAPCOM YOU'RE 5 BY

HANEY THIS IS APOLLO CONTROL HOUSTON APPARENTLY THERE WILL BE NO FURTHER CALM BY GUAM SO WE'LL TAKE THE CIRCUIT DOWN AT THIS TIME.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 06:05:33 45/1

HANEY THIS IS APOLLO CONTROL, HOUSTON, 6 HOURS, 5 MINUTES INTO THE FLIGHT OF APOLLO 7. WE ARE TALKING TO APOLLO 7 THROUGH HAWAII AND HERE IS HOW IT'S GOING.

SC ROGER AT 6 HOURS, 7 MINUTES INTO THE MISSION TOOK FROM MEASURING LM FRAMES 53 TO 54 OF A TROPICAL STORM.

HAW ROGER, WE COPY.

CAPCOM APOLLO 7, HOUSTON.

SC HOUSTON, APOLLO 7.

CAPCOM RIGHT, WALT, WE'LL CAN TURN ABOUT THAT 024 HIGH, HAVE YOU STILL GOT IT, AND IF SO ARE YOU TURNING IT THROUGH THE MALFUNCTION PROCEDURE.

SC THAT'S AFFIRMATIVE AND ON PAGE 52, BOX 32 HERE. THE CAMERA SEEMS TO BE FAIRLY HIGH, HOLDING FINE IT'S NORMAL. I HAVE SWITCHED TO REDUNDANT, SET THE CONTINUATOR WITH NO EFFECT AND I HAVE CYCLED SEVERAL TIMES EACH WATER ACCUMULATOR ON AND OFF.

CAPCOM ROGER, WILL COPY.

SC THIS IS APOLLO MISSION.

CAPCOM CAP COM, HOUSTON, ARE YOU CALLING?

HAW APOLLO, ARE YOU CALLING?

SC YES, I AM.

CAPCOM HOUSTON, APOLLO 7, GO AHEAD.

SC ROGER, HOUSTON. CAN YOU HEAR IT GOOD?

CAPCOM STAND BY.

SC 34.70 DEGREES AND THAT WAS 22 SECONDS LATE. THAT WAS 06 HOURS, 10 MINUTES, 22 SECONDS.

CAPCOM OKAY AT THE HOUSTON APOLLO. APOLLO 7, THIS IS HOUSTON. YOUR ROLLING OVER THE HUNTSVILLE NOW, WALLY DO YOU READ? AND THE VOICE - THE VOICE DATA IS COMING AT VERY NORMAL. WE'LL FIX YOU UP LOUD AND CLEAR OVER CALIFORNIA IN JUST ABOUT A MINUTE.

HANEY THIS IS APOLLO CONTROL, HOUSTON, WE'RE - OBVIOUSLY WE AND THE CREW ARE LOOKING AT THE O2 FLOW. IT'S IN A HIGH MODE. AND AS WALT CUNNINGHAM SAID HE CAN'T EXPLAIN IT JUST YET. WE EXPECT TO HAVE NEW CONTACT WITH THE SPACE-CRAFT VIA CALIFORNIA MOMENTARILY. WE'LL COME BACK TO YOU WHEN WE GET THAT. AT 6 HOURS AND 13 MINUTES INTO THE FLIGHT THIS IS APOLLO CONTROL, HOUSTON.

END OF TAPE

HANEY THIS IS APOLLO CONTROL HOUSTON. 6 HOURS 22 MINUTES INTO THE FLIGHT. WE STILL DON'T HAVE A GOOD EXPLANATION FOR THE FACT THAT WE ARE USING OXYGEN IN THE HIGH-FLOW RATE POSITION IN THE CABIN. WALT CUNNINGHAM - THAT SORT OF SYSTEM FALLS IN PURVUE OF WALT CUNNINGHAM OVER IN THE RIGHT COUCH. HE IS WORKING THE PROBLEM, LOOKING OVER HIS CHECKLIST AND WE ARE WORKING IT DOWN HERE ON THE GROUND. THERE IS SOME BELIEF THAT IT MIGHT BE A SENSOR OR A FAULTY SENSOR AND I GUESS REALLY THAT IS THE ONLY POSSIBLE THING I HAVE HEARD RUMORED ABOUT. AGAIN, WE HAVE NO EXPLANATION FOR IT AT THIS TIME. WE ARE WATCHING IT. WE HAVE SOME TAPE FROM THE START OF THE PASS AS WE MOVE DOWN AND ACROSS THE CALIFORNIA - BAJA CALIFORNIA AND DOWN THROUGH MEXICO. HERE IS THAT TAPE NOW.

CAPCOM ROGER, APOLLO 7. WE SHOW IT HOLDING ALSO. NOT INCREASING.

SC THANK YOU.

CAPCOM APOLLO 7, HOUSTON.

SC GO AHEAD, HOUSTON.

CAPCOM ROGER. YOU WERE KIND OF GARBLED OVER HUNSTVILLE, WALLY AND YOU WERE TRYING TO READ DOWN TO BAY RETRO CHECK. DID ... GO OKAY.

SC NEGATIVE.

CAPCOM ROGER.

SC WRONG CALL OUTS ON TIME.

CAPCOM OKAY.

SC THAT IS 6 HOURS 10 MINUTES AND 22 SECONDS.

WAS THE BOTTOM OF THE LINES ON THE EARTH'S RIM. AND WITH THE CALL OUTS INSTEAD OF 31.7 ALSO. MATCHED UP PERFECTLY. SAID 134.7 DEGREES IN PITCH.

CAPCOM OKAY.

SC LIKE TO RE-VALIDATE THAT TIME.

CAPCOM OKAY. WE GOT THAT DATA.

SC ROGER. IT IS FLUSH FROM 3 DEGREES, BUT

WE SHOULD DO BETTER.

CAPCOM INSTEAD OF 138.

SC SAY AGAIN.

CAPCOM I AM SORRY, WALLY. THAT WAS MY ERROR.

SC ROGER. WHAT'S WITH THE END OF 8?

CAPCOM WELL, WE READ YOU UP 138. WE ARE JUST GOING THROUGH IT NOW, TRYING TO FIND OUT WHAT THE DIFFERENCE IS.

SC 3.3 DEGREES.

SC HOUSTON, APOLLO 7. ANY IDEAS ON THE O2 FLOW HIGH? WE ARE STILL BLEEDING THE CABIN OUT. IT DOESN'T SEEM LIKE THAT COULD POSSIBLY ACCOUNT FOR THAT MUCH, BUT THAT IS THE ONLY LEAK WE CAN ACCOUNT FOR.

CAPCOM WALT, WE ARE STILL GOING THROUGH IT.

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 6:22:55 46/2

CAPCOM RIGHT NOW, WE ARE KIND OF THINKING IT
IS A SENSOR FAILURE. WE WILL TAKE A LOOK AT IT A LITTLE
BIT FURTHER AS WE GO ALONG AND LET YOU KNOW.
SC (GARBLE) ...
HANEY AND THIS IS APOLLO CONTROL HOUSTON.
WE ARE LOOKING AT THE OVERALL OXYGEN QUANTITIES HERE NATUR-
ALLY, AND LOOKING AT THIS OXYGEN FLOW, AND WE SHOW SOMETHING
LIKE 97 PERCENT -- HERE IS JACK SWIGERT TALKING TO THE CREW.
SWIGERT (GARBLE) MANUAL RETRO ATTITUDE, THE ONE YOU
ARE GOING TO DO AT 6 PLUS 50.
SC ROGER. GO AHEAD.
SWIGERT OKAY, IT IS PITCH ATTITUDE. PITCH
ATTITUDE SHOULD BE 339 AND YAW ATTITUDE SHOULD BE 000.5.
HANEY THIS IS APOLLO CONTROL HOUSTON AT
6 HOURS 27 MINUTES INTO THE FLIGHT. THE SPACECRAFT JUST
STARTING ITS 5TH REVOLUTION AROUND THE EARTH. IT IS NOW
CROSSING THE 80TH PARALLEL JUST NORTH OF THE PANAMA ISTHMUS.
AND IN CASE YOU MISSED THAT LAST TRANSMISSION FROM SWIGERT,
WE HAVE CONSIDERED THE OXYGEN HIGH FLOW QUESTION THAT HAS
COME UP SINCE - OH - BEEN LOOKING AT IT FOR ABOUT THE LAST
10 OR 15 MINUTES SINCE JUST BEFORE THE SPACECRAFT WAS
ACQUIRED BY HAWAII. AND WE HAVE LOOKED AT TOTAL USAGE. WE
HAVE LOOKED AT THE CABIN PRESSURE AND THE FACT THAT IT IS
HOLDING AT A VERY STEADY 5 - 5 POUNDS TO 5.1 POUNDS PER
SQUARE INCH AND WE ARE LOOKING AT THE TOTAL QUANTITY AND
AT LEAST AT THIS TIME WE ARE SATISFIED THAT IT IS SIMPLY
A SENSOR ERROR. IT IS AN INVALID READING AND OF COURSE WE
WILL CONTINUE TO LOOK AT IT, BUT OVER THAT PERIOD OF TIME
WE COULD SEE SOMETHING THAT WOULD EXPLAIN A LEAK OR SOME-
THING ELSE. AND THE DATA DOES NOT SHOW THAT. THE CREW, I
BELIEVE HAS - WE HAVE LOSS OF SIGNAL AND SO THAT WILL CON-
CLUDE THIS MESSAGE AT 6 HOURS AND 29 MINUTES INTO THE FLIGHT.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 06:49:20 47/1

HANEY THIS IS APOLLO CONTROL, HOUSTON, 6 HOURS,
49 MINUTES INTO THE FLIGHT. WE HAD A LITTLE, VERY SMALL
AUDIBLE COMMUNICATION THROUGH ASCENSION A FEW MINUTES AGO.
HERE IS HOW THAT WENT.

CAPCOM APOLLO 7, HOUSTON THROUGH ASCENSION.
APOLLO 7, HOUSTON.

SC GO AHEAD, HOUSTON.

CAPCOM ROGER, WALLY, WE'RE STILL SHOWING A GOOD
CABIN, AND EVERYTHING SEEMS TO BE HOLDING FINE ON THE ECS
THEN.

SC LOOKING GOOD.

CAPCOM YOUR ABOUT 1 MINUTE LOS - A MINUTE LOS,
ASCENSION. WILL PICK YOU UP AT TANANARIVE.

SC ROGER.

SC HOUSTON, APOLLO 7, OVER.

CAPCOM APOLLO 7, GO AHEAD.

SC (GARBLED)

CAPCOM APOLLO, WOULD YOU REPEAT, YOU'RE GARBLED.

SC REQUESTING PORTABLE AMP UPDATE FIRST
CHANCE YOU GET, PLEASE, OVER.

CAPCOM ROGER, WILL DO.

HANEY AND THIS IS APOLLO CONTROL, HOUSTON. AT
THIS POINT FLIGHT DIRECTOR GLYNN LUNNEY IS TALKING WITH HIS
VARIOUS FLIGHT DIRECTORS AND ASKING THEM TO CONSIDER VERY
WELL THE PERFORMANCE IN THEIR AREAS OF SPECIALITY UP TO THIS
POINT. WITHIN ABOUT 30 MINUTES WHEN THE SPACECRAFT REACHES
THE TRACKING SHIP, MERCURY, WHICH IS PARKED OFF THE CHINA
COAST. AT THAT POINT THE FLIGHT PLAN CALLS FOR LUNNEY TO
GIVE THE CREW A GO FOR 18 DASH 1. AND BEFORE HE DOES THAT,
IN THE ACT OF CONSIDERATION, HE WANTS TO CAREFULLY WEIGH ALL
OF THE UP RATING SITUATIONS UP TO THIS POINT WHICH OF COURSE
HAVE BEEN QUITE FAVORABLE. BUT AT THE SAME TIME THEY'LL GET
A VERY CAREFUL SCREENING BEFORE THAT GO IS GIVEN. THE
MERCURY STATION SHOULD - THE MERCURY SHIP IS TO ACQUIRE AT
7 HOURS, 22 MINUTES INTO THE FLIGHT. WE ARE PRESENTLY
6 HOURS AND 51 MINUTES. THIS IS APOLLO CONTROL, HOUSTON.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 7:03:40, MC48/1

HANEY AND THIS APOLLO CONTROL, HOUSTON, 7
HOURS 03 MINUTES INTO THE FLIGHT. VIA TANANERIVE WE'VE
BEEN TALKING TO THE CREW AND HERE'S HOW THAT GOES.
CAPCOM APOLLO 7, HOUSTON, THROUGH TANANERIVE.
SC HOUSTON, DO YOU READ, APOLLO 7.
CAPCOM I READ YOU (GARGLE).
SC (GARGLE) CHECK WE ARE RIGHT ON -
EARTH LIMB - LOW AS 2.8 DEGREES (GARGLE) DURING THAT CHECK
(GARGLE).
CAPCOM APOLLO 7, HOUSTON, YOU FADED ON THAT
LAST ONE AS - AFTER THE COMMENT ABOUT THE COS.
CAPCOM TANTANERIVE, IMINOLE THIS IS HOUSTON
CAP COM ARE WE GETTING THROUGH TO THEM.
CAPCOM APOLLO 7, HOUSTON. - APOLLO 7 HOUSTON.
CAPCOM TANTANERIVE, IMINOLE THIS IS HOUSTON
CAP COM. HOW DO YOU READ?
SC HOUSTON, APOLLO 7.
CAPCOM APOLLO 7, WE READ YOU FINE BY NOW.
SC ROGER, IT'S THROUGH THE MOMENTARY
(GARGLE).
CAPCOM ROGER, I UNDERSTAND YOU'RE MAKING A
FUEL FILL FIRST.
SC (GARGLE).
CAPCOM I DIDN'T GET IT WALT, SAY AGAIN.
SP DRIVING (GARGLE) A FUEL CELL CARRIAGE
(GARGLE) ONE AND HYDROGEN (GARGLE) TWO AND FUEL CELL THREE
TO FOLLOW.
CAPCOM ROGER, COPY. I CAN GIVE YOU AN UPDATE
ON YOUR ORBITAL MAP HERE.
SC ROGER, STANDING BY, GO AHEAD.
CAPCOM OKAY, FOR REV 5, THE NODE - THE TIME OF
THE NODE WILL BE 07 PLUS 17 PLUS 38. GO ON TO TWO TO THE
NODE WILL BE 106.5 DEGREES EAST.
SC ROGER, 106.5 EAST AND 17 PLUS 38.
CAPCOM ROG, AND THE RIGHT ASCENSION WILL BE
06 PLUS 49.
SC SAY AGAIN.
CAPCOM THE RIGHT ASCENSION WILL BE 06 PLUS 49.
SC 06 PLUS 49.
CAPCOM OKAY AND 7 - WALLY YOU FADED OUT ON
WHEN YOU WERE DESCRIBING THE NIGHT RETRO CHECK, WE DIDN'T
GET YOUR COMMENTS ON THE COAX.
SC ROGER, I SET THE COAX FOR 31.7 DEGREES.
THERE WAS MORE READILY USABLE THAN THE WINDOW LINE DURING
RETRO.
CAPCOM OKAY, ROGER, OKAY, REAL GOOD. WAS THE
BASIC DATA CORRELATED PRETTY WELL FOR THE NIGHT RETRO,
WALLY.

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 7:03:40, MC48/2

SC (GARBLE), REAL GOOD ON THE EARTH
HORIZON.

CAPCOM OKAY, THAT'S WHAT WE'RE SHOOTING FOR,
WE'LL TALK TO YOU OVER GUAM ABOUT THE DAY RETRO CHECK AND
THE DISCREPANCY THERE.

SC ROGER.

CAPCOM AND APOLLO 7, WE PLAN TO DO THAT DUPLEX
V CHECK JUST AS WE START GUAM THERE.

SC ROGER.

CAPCOM APOLLO 7, YOUR ONE MINUTE TO LOS
TANTANARIVE. PICK YOU UP IN MERCURY IN ABOUT 18 MINUTES.

SC ROGER.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 7:22:00 49/1

HANEY THIS IS APOLLO CONTROL, HOUSTON, 7 HOURS, 22 MINUTES INTO THE FLIGHT. IN A VERY FEW SECONDS THE SHIP, MERCURY, PARKED OFF THE COAST OF CHINA SHOULD ACQUIRE THE SPACECRAFT NOW. THE ACQUISITION IS PLANNED FOR RIGHT NOW. AS A MATTER OF FACT, AND WHEN IT COMES WE'LL CUT INTO IT. THERE WILL BE DISCUSSION WITH THE CREW OVER HOW OR WHAT THEIR STATUS IS AND DISCUSSION OF THE EVENTS OVER THE NEXT FEW HOURS. HERE IS THAT DISCUSSION NOW.

CAPCOM HOW IS THE SPACECRAFT SYSTEM STATUS?
SC OH, WE ARE IN PRETTY GOOD SHAPE. WE DETECTED A CONTINUAL YAW WHICH WE SUSPECTED BEFORE WE STARTED TO FLY. I'LL GIVE YOU SOME DATA ON THAT. THE CONTROL MODE IS SCS ATTITUDE HOLD BACKSTEAD BEND HIGH RATE LIMIT SHACKLE IS ON. AT 7 HOURS, 17 MINUTES, AND 3 SECONDS YOUR HOURS PLUS 007.10. AT 17 HOURS, 18 MINUTES, AND 5/6TH SECONDS YOUR HOURS PLUS 007.82 AND IT SHACKLES BACK AND FORTH BETWEEN THOSE KIND OF NUMBERS AT THAT RATE.

CAPCOM OKAY, WE COPY.
SC WE ARE KNOCKING (GARBLE) ON THE FLUSH YAW SIDE OF THE DEADBAND.

CAPCOM ALL RIGHT.
SC THE OTHER SYSTEMS ARE BETTER WITH THE EXCEPTION OF THE. (GARBLE) WELL WE SEEM TO HAVE THE 02 LINE COME OFF THE PEG. MUST HAVE A STUCK VALVE.

CAPCOM DID YOU USE THE BARDOL PROCEDURE?
SC WE USED BARDOL PROCEDURES BUT THAT WAS LIKE AN HOUR AGO. (GARBLE) AUTO 1 THE FLOW METER LOOKS SLUGGISH AND IT IS READING ABOUT .75 ABOUT .8. THE LIGHT IS OUT. IT IS DECREASING IT MUST BE A WINNER.

CAPCOM DO YOU HAVE ANY OTHER SYSTEMS PROBLEMS?
SC DONN SOLVED HIS URINE DUMP SYSTEM PROBLEM.
CAPCOM ALL RIGHT, COPY. THAT SOUNDS LIKE A PERSONAL PROBLEM.

SC (GARBLE)
CAPCOM DOES THE SPACECRAFT LOOK GOOD FOR ABOUT

SC 18 REVS A DAY
CAPCOM OKAY
SC WE'RE READY TO MOVE TO FAST TIME RIGHT NOW. HOW ABOUT GOING BACK TO MSL AND STARTING OVER TOMORROW.

CAPCOM APOLLO 7, HOUSTON YOU ARE GO FOR 18-1.
SC THAT SUITS US.
CAPCOM REAL FINE. TOM HAS A QUESTION HERE FOR YOU. OKAY, HERE WALLY JUST WANT TO ACT OUT HERE REAL FAST ON THAT ONE RETRO CHECK. THE NIGHT RETRO CHECK CAME OUT REAL GOOD AND THE RETRO GUY WANTS TO ASK YOU ONE QUESTION

CAPCOM HERE. ON A DAYLIGHT CHECK WHEN YOU CAME UP TO 6 HOURS AND 10 MINUTES, YOU READ 134.7 AT THAT TIME?

SC THAT IS AFFIRMATIVE. WE WERE 27 SECONDS LATE WITH THE CHECK BECAUSE WE WERE SO FAR OFF AND I WAS TRYING TO BRING IT IN.

CAPCOM OKAY, WE'LL PRODUCE AND HAVE THAT BECAUSE THEY CAN ACCOUNT FOR A 1.4 DIFFERENCE AND IT LOOKS LIKE WHAT THEY WOULD LIKE TO DO DOWN THE ROAD SOME TIME IS RUN ANOTHER ONE.

SC OKAY, WE WILL DO A LITTLE MORE HOMEWORK ON IT AND USE THE FUEL.

CAPCOM OKAY

SC (GARBLE)

CAPCOM SAY AGAIN, WALLY.

SC THOSE ARE KIND OF EXPENSIVE TO USE AS FUEL.

CAPCOM YES, WE AGREE COMPLETELY AND SINCE THE NIGHT CHECK CAME OUT GOOD, WE CAN ACCOUNT FOR HALF OF THAT DIFFERENCE DUE TO A VECTOR.

SC APOLLO 7 (GARBLE)

CAPCOM APOLLO 7, HOUSTON. WE WOULD LIKE TO SHIFT OVER TO DUPLEX B FOR A RADIO CHECK. OKAY OPPOSITE ON ME ON (GARBLE) FIRST.

HANEY THIS IS APOLLO CONTROL IN HOUSTON, 7 HOURS 27 MINUTES INTO THE FLIGHT AND TO REPEAT. FLIGHT DIRECTOR, GLENN LUNEY HAS GIVEN APOLLO 7 A GO FOR 18-1, A GO FOR 18-1 AND WE WILL GO BACK AND TRY FOR ANY ADDITIONAL COMMENTARY COMING TO US BY GUAM.

GWM 5 BY 5. DO YOU READ ME 2 PLUS B.

CAPCOM 5 BY. STAND BY 1

OKAY, APOLLO 7 YOU CAN GO BACK SIMPLEX A. THE VOICE CHECK WAS REAL GOOD.

SC APOLLO 7, SIMPLEX A. HOW DO YOU READ ME?

CAPCOM YOU'RE 5 BY.

SC 5 BY HERE.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 7:32:00 50/1

HANEY . . .18-1. THAT WAS A SIGN THAT THE
CREW COULD PROCEED TO REMOVE THEIR SPACE SUITS. WE HAVE HAD
NO POSITIVE CONFIRMATION THAT THEY HAVE STARTED THAT STEP
YET. BUT IT WAS - IT IS AN UNDERSTANDING AND IT IS WRITTEN
INTO THEIR FLIGHT PLAN AND OURS THAT THE SUITS WOULD START
COMING OFF AT THIS POINT. THIS IS APOLLO CONTROL IN HOUSTON.

END OF TAPE

APOLLO 7 MISSION COMMENTARY 10/11/68 7:39:45 GET MC51/1

RILEY THIS IS APOLLO CONTROL, 7 HOURS AND 39 MINUTES INTO THE MISSION. WE'RE JUST ABOUT READY TO ACQUIRE APOLLO 7 AT HAWAII STATION. WE'LL STAND BY FOR THAT PASS AND SEVEN WILL GO ON DOWN THROUGH THE HUNTSVILLE'S ACQUISITION AREA. HERE'S THE CALL NOW

CAPCOM ... YOU HAD A RESTART, DO YOU HAVE YOUR RESTART LIGHTS ON YOUR COMPUTER?

SC (GARBLED)

CAPCOM OKAY, YOU'RE KINDA GARBLED, I UNDERSTAND YOU DID HAVE ONE TO REACH THAT OTHER THING. LOOKS LIKE ALL THE (GARBLE) IS REAL FINE.

SC (GARBLED)

RILEY APOLLO CONTROL, 7 HOURS AND 45 MINUTES WE HAVE LOS AT HAWAII AND WE'LL CONTINUE THE MONITOR THROUGH TO HUNTSVILLE. HELLO APOLLO 7 HOUSTON.

SC ROGER, TOM, GO AHEAD.

RILEY OKAY, GOT GOOD COMM WITH YOU NOW, WALLY, JUST WANTED TO RECHECK ON THE COMPUTER. NOW WHEN YOU DID - DID YOU GET THE ALARM LIGHT AT THE SAME TIME THAT THE RESTART - THAT THE PROGRAM ALARM AT THE SAME TIME THAT THE RESTART CAME ON?

SC YES SIR, WE'VE WROTE THAT OFF AS NO PROBLEM SIR.

RILEY OKAY, BUT YOU DID GET A RESTART AND A PROGRAM ALARM AT ABOUT THE SAME TIME?

SC THAT'S CONFIRMED, THAT WAS DUE TO THE ZERO OPTICS, THEY SLOW UP TOO FAST.

RILEY OKAY. I DON'T WANT TO - WE STARTING TO TRACK THE S-IVB AND IT'S NOT SEPARATING AS FAST AS THEY ANTICIPATED. IT WILL STILL TAKE A WHILE TO TRACK IT OUT AND THEN WE'LL HAVE PLENTY OF TIME ON IT.

SC OKAY

RILEY THIS IS APOLLO CONTROL HOUSTON AT 7 HOURS, 54 MINUTES INTO THE FLIGHT. APPARENTLY, WE WILL HAVE NO MORE COMM THROUGH GUAYMAS. THE SPACECRAFT WILL BE PROCEEDING DOWN THE EASTERN PACIFIC.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 07:55:00 52/1

RILEY THIS IS APOLLO CONTROL, HOUSTON, 7 HOURS, 54 MINUTES INTO THE FLIGHT. APPARENTLY WE WILL HAVE NO MORE COME THROUGH GUAYMAS. THE SPACECRAFT WILL BE PROCEEDING DOWN EASTERN PACIFIC RUNNING PARALLEL TO THE MEXICAN, CENTRAL AMERICAN AREA WITHOUT ANY FURTHER CONTACT. I WANT TO EMPHASIZE IN THAT LAST MESSAGE THE STATEMENT THAT THE SEPARATION DISTANCE BETWEEN THE COMMAND MODULE AND THE S-IVB IS NOT RUNNING EXACTLY ACCORDING TO THE EARLIER PREDICTION. YOU RECALL ABOUT AN HOUR, AN HOUR AND A HALF AGO, WE TOLD YOU THAT THE TWO WERE ABOUT 15 MILES APART. THE COMMAND MODULE IN FRONT AND SLIGHTLY BELOW THE S-IVB. AND THE PREDICTION THE FLIGHT DYNAMICS OFFICER GAVE US THEN WAS THAT THEY WOULD CONTINUE TO SEPARATE AT THE RATE OF 4 OR 5 MILES PER HOUR FOR A PERIOD OF 7 OR 8 HOURS, AND PERHAPS REACH A MAXIMUM SEPARATION POINT OF ABOUT 100 MILES BEFORE THEY WOULD SLOWLY COME BACK TOGETHER. NOW THAT SEPARATION RATE IS NOT PRECEEDING ACCORDING TO THE REFERENCE PREDICTION. WE HAVE NO NEW NUMBERS ON JUST HOW IT IS PROCEEDING, BUT THEY THINK WE CAN GET SOME TOGETHER BEFORE THE NEWS CONFERENCE WHICH WILL FOLLOW THIS SHIFT. THIS IS APOLLO CONTROL, HOUSTON AT 7 HOURS, 56 MINUTES INTO FLIGHT.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 8:10:03, MC53/1

RILEY APOLLO CONTROL, HOUSTON, 8 HOURS 10 MINUTES. THE SECOND SHIFT OF FLIGHT CONTROLLERS IS NOW ACTIVE IN THE MISSION CONTROL CENTER, HEADED BY FLIGHT DIRECTOR GENE KRANZ. THE CAP COM ON THIS SHIP IS ASTRONAUT - WELL TOM STAFFORD IS STILL HERE, BUT ASTRONAUT RON EVANS HAS JUST COME IN TO AND WILL FILL OUT THE REST OF THIS SHIFT. WE ARE ESTIMATING THE NEW CONFERENCE NOW WITH FLIGHT DIRECTOR GENE - WITH FLIGHT DIRECTOR GLYNN LUNNEY OF THE FIRST SHIFT FOR 6:30 PM CENTRAL DAYLIGHT TIME. APOLLO CONTROL 8 HOURS 10 MINUTES.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 8:31:40, MC54/1

RILEY APOLLO CONTROL, HOUSTON 8 HOURS 31 MINUTES. WE'RE COMING UP ON THE TANANARIVE STATION NOW, BUT WE DO NOT INTEND TO INITIATE ANY COMMUNICATION WITH THE SPACECRAFT AT TANANARIVE. WE WILL STAND BY IN CASE THE FLIGHT CREW WANNTS TO TALK, BUT THE CONTROL CENTER WILL INITIATE COMMUNICATION DURING THE PASS. WE'RE OVER THE PRETORIA, SOUTH AFRICAN STATION, BUT THERE'S NO VOICE CAPABILITY AT PRETORIA. IF THERE IS ANY COMMUNICATION AT TANANARIVE WE WILL BRING IT TO YOU. APOLLO CONTROL.

END OF TAPE

RILEY 9 HOURS AND 31 MINUTES INTO THE MISSION. APOLLO 7 IS ON IT'S SIXTH REVOLUTION DOWN OVER THE EASTERN PACIFIC. WE DID HAVE A BRIEF BIT OF COMMUNICATION EARLIER IN THIS REVOLUTION AT TANANARIVE, AND AT THE TRACKING SHIP MERCURY WALT CUNNINGHAM REPORTED THAT THE COMMAND MODULE PILOT, DONN EISELE WAS SETTLING DOWN FOR HIS SLEEP PERIOD. AND THEN OVER THE HAWAII STATION WHICH WE JUST PASSED, THE FLIGHT SURGEONS WERE SUCCESSFUL IN PASSING UP SOME CORRECTIVE MEASURES FOR CUNNINGHAM TO TAKE TO FIX HIS EKG INSTRUMENTATION. WE'LL BRING YOU THE TAPES FROM THOSE PASSES NOW.

CAPCOM APOLLO 7, THIS IS HOUSTON THROUGH TANANARIVE.

SC GO AHEAD.

CAPCOM ROGER, WE'LL BE STANDING BY HERE (GARBLE) PREDICTED THE NEXT FLIGHT BEING THAT WILL BE REQUIRED SOME TIME AFTER 40 HOURS.

SC ROGER, WE'LL STAND BY FOR REF C, AND SINCE CONFESSION IS GOOD FOR THE SOUL, WE GOT OUR CURFEWS RAN A LITTLE BIT OF 3 MINUTES LAST TIME.

CAPCOM NO PROBLEM.

CAPCOM APOLLO 7, WE WANT TO LOG (GARBLED) 3 HOURS AND 35 MINUTES INTO THE FLIGHT.

CAPCOM APOLLO 7, HOUSTON.

SC WE'RE USING YOU THROUGH MALAGASY WHENEVER WE HAVE OUR CSD OUT OF COMMISSION AS TEMPORARY.

CAPCOM OKAY.

SC HOUSTON, THIS IS APOLLO 7, HAVE YOU GOT THE GOOD TEAM ON YET.

CAPCOM APOLLO 7, SAY AGAIN.

SC SOUNDS LIKE YOU'VE GOT THE GOOD TEAM WORKING THERE.

CAPCOM YEH, AT THE PRESS.

SC HOPE YOU HAD A NICE TRIP BACK TO HOUSTON.

CAPCOM WE HAD A BEAUTIFUL TRIP. I TRIED TO CONTACT YOU BUT NO GO.

SC UNDERSTAND THAT.

CAPCOM APOLLO 7, HOUSTON, WE HAVE 1 MINUTE TIL LOS AT TANANARIVE.

SC ROGER.

CAPCOM APOLLO 7, HOUSTON, THROUGH MERCURY, HOW DO YOU READ? - APOLLO 7, HOUSTON, THROUGH MERCURY.

SC ROGER HOUSTON, GO AHEAD.

CAPCOM ROGER, YOU'RE COMING IN LOUD AND CLEAR. JUST WANTED TO CHECK, DO YOU GOT ALL THE BASIC STOWAGE CLEARED AWAY WALT.

SC SEEMS LIKE WE HAVE. WE'RE UP TO THAT

STAGE IN THE FLIGHT PLAN HERE WHERE WE KIND OF COLLECT OUR (GARBLED). DONN IS ATTEMPTING TO SETTLE DOWN FOR A LONG WINTER'S NIGHT.

CAPCOM OKAY, THANK YOU.

CAPCOM APOLLO 7, HOUSTON OPPOSITE (GARBLED).

SC ROGER, OUT OF (GARBLED), BUT I SHOT A BETTER LOCK UP ON - ON THE AREA WHICH I HAD BEFORE. IT'S BACKUP NOW. I STILL HAVE THE O2 FLOW HIGH LIGHT. WE'LL OCCASIONALLY ADD THE FLOW METER COME ON DOWN TO AROUND .8, BUT IT'S A VERY SLUGGISH MOVEMENT. I WOULD APPRECIATE IT IF AS SOON AS YOU GET ANY KIND OF TREND DATA ON THE OPTION QUIRY YOU'LL LET KNOW AND IT'LL REALLY CONFIRM THE TRANSFUSION PROBLEM. - HOUSTON, THIS IS 7, OVER.

CAPCOM HOUSTON, GO.

SC WE HAVE LOCKED THE ONBOARD THROUGH REV 8, AND WE'LL BE STANDING FOR FURTHER UPDATE ON BLOCK DATA AND (GARBLED)

CAPCOM HOUSTON, ROGER. APOLLO 7, THIS IS HOUSTON, LET'S TRY OPPOSITE ON AGAIN.

SC THIS ONE LOOKS A LITTLE BETTER TO ME, BUT NOT TOO GOOD. I'M GOING TO TRY INBETWEEN IF IT LIE BACK AND KIND OF TELL HERE ON THE DISTINGUISH TAPE METER. IT'S NEGATIVE. AN IVA SEEMS TO BE BEST FROM HERE.

CAPCOM ROGER, 30 SECONDS TO LOS AND OKAY ON THE IVA.

CAPCOM APOLLO 7, HOUSTON FROM HAWAII, OVER.

SC ROGER, READING YOU FINE.

CAPCOM ROGER, GOOD NEWS TONIGHT. NO EKG ON A CMP OR LMP.

SC (GARBLED) I'LL TELL THE CMP YOU ASKED.

CAPCOM SINCE THE CMP IS ASLEEP DON'T BOTHER HIM, BUT WE'VE GOT SOME CHECK WE WANT THE LMP TO DO.

SC THIS IS THE LMP GO ON THE CHECKS.

CAPCOM ROGER. CHECK THAT THAT SENSOR GOES INTO THE LOWER END OF YOUR BREAST BONE THERE RIGHT IN YOUR CHEST IS PLUGGED IN THE LINE. CHECK THAT THE SENSOR, THE EXTERNAL SENSOR IS PLUGGED INTO THE BOX AND IS TIGHT. AND THEN WHEN YOUR DONE WITH ALL THAT, IF IT DOESN'T MAKE UP CHECK THAT THE SENSOR IS STRAPPED TO THE BODY. AND

SC I FOUND ONE THAT WAS LOOSE, IT WAS THE UPPER ONE, THE UPPER STRAP.

CAPCOM ROGER.

SC HOW ARE YOU READING ME NOW?

CAPCOM LOUD AND CLEAR.

SC HOW'S THE EKG ON ME?

CAPCOM NOTHING YET.
CAPCOM THAT'S IT.
CAPCOM THAT FIXED IT LMP.
SC (GARBLED)
CAPCOM (GARBLED)
CAPCOM APOLLO 7, HOUSTON, I HAVE A BLOCK DATA
ON NUMBER 2 TO GIVE YOU. APOLLO 7, HOUSTON.
SC GO.
CAPCOM ROGER, BOTH LAST TWO STATIONS CONFIRM
THAT YOU HAVE BEEN TRANSMITTING ON BOTH COMPLEX A AND B.
DO YOU CONCUR?
SC (GARBLED) WE'RE NOW ON COMPLEX A.
CAPCOM ROGER. WE'RE ABOUT 1 MINUTE TO LOS. I'LL
HAVE YOUR BLOCK DATA FOR YOUR OVER TANANARIVE IF THE VOICE
IS GOOD, OTHERWISE IT'LL RUN.
SC ROGER, WE'LL BE STANDING BY.
SC APOLLO 7 TO HOUSTON.
CAPCOM HUNTSVILLE (GARBLED) HOUSTON CAP COM.
CAPCOM APOLLO 7, HOUSTON.
CAPCOM HUNTSVILLE (GARBLED) HOUSTON TO CONTACT.
CAP COM HOUSTON TO CONTACT GO.
CAPCOM ROGER, ARE YOU READING APOLLO 7.
CAPCOM WE PRESENTLY HAVE TWO IN S-BAND, WE'RE
READING YOU GOING UP. NO SIGNAL COMING BACK.
CAPCOM APOLLO 7, HOUSTON, 1 MINUTE TO LOS IN
FLIGHT UP TELEMETRY COMMAND SWITCH TO RESET IN RELEASE.
SC ROGER, ARE YOU READING THE S-BAND AS
REAL LOW, AND SAY AGAIN AFTER LOS?
CAPCOM ROGER. UP TELEMETRY COMMAND SWITCH TO
RESET. APOLLO 7, HOUSTON, RETURN THE UP TELEMETRY COMMAND
SWITCH TO NORMAL.
SC YOU'RE COMING IN WAY DOWN IN THE MUD.
DO YOU WANT THE UP TELEMETRY?
RILEY APOLLO CONTROL, HOUSTON, 9 HOURS, 42 MIN-
UTES. THAT'S THE END OF THE TAPE, THE CAP COM YOU HEARD
TALKING TO FLIGHT CREW THROUGH HAWAII WAS ASTRONAUT JOHN
YOUNG WHO A MEMBER OF THE BACKUP CREW WHO HAS JOINED THE
ASTRONAUT RON EVANS AT THE CAP COM CONSOLE HERE IN THE
MISSION CONTROL CENTER. APOLLO 7'S NEXT STATION CONTACT
WILL BE TANANARIVE AT 10 HOURS, 7 MINUTES, 30 SECONDS ELAPSE
TIME. APOLLO CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY 10/11/68 10:07:30 GET MC56/1

RILEY THIS IS APOLLO CONTROL AT 10 HOURS AND
7 MINUTES ELAPSED TIME, WE COMING IN TO ACQUISITION AT
TANANARIVE NOW. WE'LL STAND BY LIVE THROUGH THIS PASS.

CAPCOM APOLLO 7 HOUSTON - APOLLO 7 HOUSTON.

SC GO AHEAD, HOUSTON

CAPCOM ROGER, YOU SOUND PRETTY GOOD THIS TIME.

SC ROGER, WE'RE (GARBLED) THE CANNISTER AT
THIS TIME.

CAPCOM ROGER

SC HOUSTON, THIS IS APOLLO 7 AGAIN, WELL

ABOUT 25 MINUTES AGO, I GUESS WE NOTICED THE GLYCOL AND THE
TEMPERATURE WAS CLIMBING UP TO ABOUT 50 AND THE STEAM PRES-
SURE WAS TAGGED LOW AND THE BEST WE CAN FIND OUT, ABOVE 60
WE WENT TO MANUAL AND INCREASED FOR 45 SECONDS AND WE
STARTED TO ACTIVATE THE SECONDARY LOOP, BEFORE WE GOT THE
SECONDARY LOOP COMPLETELY ACTIVATED, IN ABOUT 10 OR 12 MIN-
UTES THE TEMPERATURE STARTED DOWN AGAIN AND THERE WAS NO
ACTIVITY FOR A COUPLE OF MINUTES, BUT IT LOOKS LIKE THE
WATER BOILER COUCH JUST MIGHT HAVE FROZEN AND NOW IT SEEMS
TO BE CONTROLLING FINE AND BACK IN ORDER.

CAPCOM APOLLO 7 HOUSTON, WE COPY.

SC ROGER, I AM IN THE MIDST OF CHANGING
THE LITHIUM HYDROXIDE CANNISTER, WOULD YOU VERIFY IT FOR ME
FROM THE EPS PEOPLE HOW LONG THIS BUTTON SHAFT HAS TO BE
DEPRESSED PREVENTING THE CANNISTER WE'VE PREPARED FROM
OPENING. IT SEEMS TO BE ON A CONTINUAL BASIS.

CAPCOM ROGER, STAND BY - YOU DON'T EVEN NEED
TO DEPRESS A BUTTON THERE, WALL - APOLLO 7 HOUSTON, JUST
A MOMENTARY DEPRESS ON THAT CANNISTER.

SC ROGER, UNDERSTOOD, BUT I THINK IT MUST
BE FOR ONE CALIBRATION, IT WORKS ALL RIGHT NOW.

CAPCOM WALL, WE WOULD LIKE TO VERIFY THAT YOU
RESET YOUR TELEMETRY COMMAND SWITCH AND IT WENT BACK TO
NORMAL.

SC ROGER

CAPCOM APOLLO 7 HOUSTON REQUESTS A PARTIAL
PRESSURE 02 READING.

SC ADVISE. - THIS IS APOLLO 7, WE TOOK
AND CHANGED THE CANNISTER OUT OF THE A SIDE (GARBLE) ON THE
GROUND THEY INADVERTANTLY PLACED CANNISTER TWO, I SWITCHED
CANNISTER TWO DOWN BESIDE B AND MOVED CANNISTER ONE AND
CANNISTER TWO IS NOW ...

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 10:14:30 57/1

SC AND CANISTER 2 NOW...

CAPCOM APOLLO 7, HOUSTON. THAT IS ROGER.
RILEY THIS IS APOLLO CONTROL. WE HAVE HAD
LOSS OF SIGNAL AT TANANARIVE NOW. AS YOU HEARD, THIS IS
THE FIRST CHANGE OF LITHIUM HYDROXIDE CANISTER. THERE ARE
TWO CANISTERS IN THE SYSTEM THAT THEY ARE USING TO REMOVE
THE CARBON DIOXIDE FROM THE RE-CIRCULATED OXYGEN. ONE
CANISTER IS CHANGED EVERY 12 HOURS. THIS WAS THE FIRST
CHANGE RIGHT ON SCHEDULE ACCORDING TO THE FLIGHT PLAN.
THE NEXT STATION TO ACQUIRE WILL BE THE TRACKING SHIP
MERCURY DOWN OFF THE COAST OF JAPAN, DOWN BETWEEN JAPAN
AND THE PHILLIPINES. ACQUISITION TIME THERE AT 10 HOURS
30 MINUTES 40 SECONDS. THIS IS APOLLO CONTROL AT 10 HOURS
16 MINUTES.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 10:30:30 58/1

RILEY THIS IS APOLLO CONTROL 10 HOURS, 30 MINUTES INTO THE MISSION. APOLLO 7 IS COMING UP ON THE TRACKING SHIP, MERCURY. SHOULD ACQUIRE WITHIN A FEW SECONDS. IT IS IN ITS SEVENTH REVOLUTION. WE'LL MONITOR COMMUNICATIONS THROUGH THIS PASS.

CAPCOM APOLLO 7, HOUSTON THROUGH MERCURY. THIS IS APOLLO 7, HOUSTON.

SC GO AHEAD

CAPCOM ROGER, WE NEED YOUR PARTIAL PRESSURE 02 READING (GARBLE) IN NOW SO YOUR STATUS OF THE WASTE MANAGEMENT OVERBOARD DRAIN VALVE.

SC HAVE YOU GOT THE (GARBLE) READING AS 190 WHEN YOU REQUESTED IT AT 10:15

CAPCOM SAY AGAIN THE READING, I MISSED IT.

SC ONE NINER ZERO.

CAPCOM ROGER, GO AHEAD AND CLOSE THE WASTE MANAGEMENT OVERBOARD DRAIN VALVE. (GARBLE). THE ONE YOU ALREADY CLOSED AT 10:15

SC (GARBLE)

CAPCOM APOLLO 7, HOUSTON, I'VE GOT SOME BLOCK DATA TO GIVE YOU

SC (GARBLE)

CAPCOM ROGER, BLOCK DATA NUMBER 2 009-3 BRAVO PLUS 254 PLUS 1367 A 013 PLUS 2 NINER PLUS 36. 5150, 010 ALPHA CHARLIE MINUS 054 MINUS 0162, 014 PLUS 1 NINER PLUS 12 4314, 011 ALPHA CHARLIE PLUS 060 MINUS 0220, 015 PLUS 54 PLUS 48, 4131, 012 ALPHA CHARLIE PLUS 134 MINUS 0330, 017 PLUS 28 PLUS 48, 4098, 013 2 ALPHA PLUS 262 MINUS 0282 019 PLUS 08 PLUS 06, 4258, 0141 BRAVO PLUS 220 MINUS 0620, 020 PLUS 34 PLUS 03, 4163. HOUSTON, OVER.

SC PARTIAL READBACK. 0093 BRAVO PLUS 254 PLUS 1367, 013 PLUS 2936, 5150, 010 ALPHA CHARLIE MINUS 054 MINUS 0162, 014 PLUS 19 PLUS 12, 4314, 024, 011 ALPHA CHARLIE PLUS 060 MINUS 0220, 0155448, 4131, 012 ALPHA CHARLIE PLUS 134 MINUS 0330, 01728484098, 0132 ALPHA PLUS 262 MINUS 0282 0190806, 4258, 0241 BRAVO PLUS 220 MINUS 0

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 10:39:54 59/1

SC 0190806, 4258, 0141 BRAVO PLUS 220 MINUS
062002034034163 OVER.

CAPCOM ROGER, WALLY. READBACK IS CORRECT.
BREAK WHEN WE GET OVER HAWAII WE ARE GOING TO WANT TO MAKE A
E MEMORY DUMP BY BURP 74. IN TRANSMIT YOU START OUT WITH
A CLEAR DISK, BURP 74 ENTER AND THEN WAIT ONE MINUTE.

SC HOUSTON, APOLLO 7, I WOULD LIKE TO LOG
10 PLUS 35. I HAD 11 SQUIRTS ON THIS WATER PISTOL AND I
WOULD LIKE TO LOG THAT THE BEEF STEW MIGHT TEND TO BE VERY
CRUMBLY AND A LOT OF CRUMBS WHEN YOU OPEN THE PACKAGE EVEN.
PRETTY CRUMBY FOOD. TOP OF THE CRUMBLY (GARBLE)

RILEY THIS IS MISSION CONTROL WE HAVE HAD LOS
AT THE MERCURY NOW. YOU HEARD WALLY SCHIRRA REPORT THE
PARTIAL PRESSURE OF OXYGEN IN THE CABIN AS NOW 190 MILIMETERS
OF MERCURY AND THAT IS THE MAGIC NUMBER THEY HAVE BEEN LOOK-
ING FOR. THAT IS THE SEA LEVEL EQUIVALENT. WHEN THEY
REACHED THAT NUMBER, THEY CLOSED THE WASTE MANAGEMENT VENT
VALVE WHICH IS THE VALVE WHICH HAS BEEN VENTING THE ATMOS-
PHERE INTRODUCED TO THE CABIN ON THE PAD THE 60 40 OXYGEN
NITROGEN COMBINATION. SO THAT VALVE IS CLOSED NOW. THEY ARE
NOT VENTING AND THEY DO HAVE A SEA LEVEL IN THE CABIN AS FAR
AS PARTIAL PRESSURE OF OXYGEN. AT 10 HOURS, WE'LL ACQUIRE
AGAIN IN HAWAII IN ABOUT 8 MINUTES SPECIFICALLY 10 HOURS,
48 MINUTES AND THIS IS MISSION CONTROL AT 10 HOURS, 39 MIN-
UTES

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 10:48:00, MC60/1

RILEY THIS IS APOLLO CONTROL, 10 HOURS 48
MINUTES INTO THE MISSION. APOLLO 7 COMING UP ON AQUISITION
OF HAWAII TRACKING STATION NOW. WE'LL STAND BY THROUGH THIS
PASS.

CAPCOM APOLLO 7, HOUSTON.

SC GO AHEAD.

CAPCOM ROGER, WALLY AT THIS TIME WE WOULD LIKE
TO TRY DUPLEX A AND NOTIFY WHEN SWITCHING TO A DUPLEX A.

SC GARBLE.

CAPCOM ROGER, DUPLEX A, NOW.

SC HOUSTON, APOLLO 7, HOW DO YOU READ
(GARBLE).

CAPCOM APOLLO 7, HOUSTON. A LITTLE MORE
GARBLE THAN THE OTHER, BUT STILL ABOUT 4 BY 5.

SC ROGER, (GARBLE).

CAPCOM ROGER, LET ME CHECK AND MAKE SURE WE'RE
RECEIVING DOWN LINK AND WE CAN PROCEED WITH OUR BLURB 74.

SC ROGER, DO YOU WANT ME TO REMAIN
(GARBLE).

CAPCOM AFFIRMATIVE, WE WILL STAY DUPLEX A
UNTIL WE GET CLOSE TO LOS AND IF WE HAVEN'T THE METHOD
RETURN TO SIMPLEX A AT LOS.

SC WILCO AND (GARBLE).

CAPCOM IT'S A NEGATIVE, YOU WANT TO MAKE SURE
THE DECK IS CLEAR AND IT LOOKS LIKE IT IS. IT (GARBLE) 74
AND INNER AND THEN WE WILL WAIT ONE MINUTE.

SC STANDING BY ON YOUR MARK.

CAPCOM APOLLO 7, HOUSTON, PROCEED, BLURB 74.

SC (GARBLE)

CAPCOM ROGER, THE INNER PHASE. WALLY YOU CAN
GO AHEAD AND MAKE THE ENTRY FROM ON BOARD WE'RE NOT GOING
TO SEND IT TO YOU.

CAPCOM APOLLO 7, HOUSTON, REQUEST YOU TO ENTER
BLURB 74.

CAPCOM APOLLO 7, HOUSTON.

SC GO AHEAD.

CAPCOM REQUEST YOU ENTER A VERB 74.

SC YES.

CAPCOM APOLLO 7, HOUSTON.

SC YES.

CAPCOM IT LOOKS LIKE THE E MEMORY DUMP IS GOOD.
WE WOULD LIKE TO VERIFY THE POSITION OF THE WATER FLOW
NOW THAT PANEL TWO IS IN THE AUTO POSITION. THAT'S THE
GLYCOL EVAPORATOR WATER FLOW.

SC (GARBLE)

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 10:55:00 61/1

SC HOUSTON, THE SET IS AFFIRMATIVE. THE
ENGINE IS AUTO; THE G-PRESSURE IS AUTO, THE WATER PUMP
IS AUTO.

CAPCOM HOUSTON, ROGER.

SC WE JUST GO THE SAME THING AGAIN. PRESSURE
NORMAL (GARBLED).

CAPCOM APOLLO 7, HOUSTON. RETURN TO COMPLEX A
AND ABOUT 1 MINUTE TO ANALYZE IT.

SC ROGER, (GARBLED)

RILEY THIS IS MISSION CONTROL, 10 HOURS,
56 MINUTES. WE'VE HAD LOS SINCE HAWAII. THE NEXT STATION
ACQUIRES TRACKING SHIP REDSTONE, BE A VERY LOW ELEVATION
PASS THERE. WE THINK WE WILL BE ABLE TO HAVE VOICE
COMMUNICATIONS. BUT THE ELEVATION IS JUST SLIGHTLY OVER
3 DEGREES AND IT'LL BE A SHORT PASS. THIS OPERATION WITH
THE COMPUTER DURING THE HAWAII PAS WAS TO CHECK THE MEMORY
AFTER THE RESTART THAT THE COMPUTER SAW SEVERAL HOURS AGO.
FLIGHT CONTROLLERS HERE WANTED TO DOUBLE CHECK TO MAKE SURE
THAT THE MEMORY HAD NOT BEEN EFFECTED, AND IT APPEARS TO BE
VERY GOOD AT THIS TIME. AT 10 HOURS, 57 MINUTES THIS IS
APOLLO CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 11:06:00, MC62/1

RILEY THIS IS APOLLO CONTROL, 11 HOURS 5
MINUTES - WE'RE COMING UP ON THE REDSTONE NOW. WE'LL
STAND BY THROUGH THAT PASS.

CAPCOM APOLLO 7, HOUSTON.

CAPCOM APOLLO 7, HOUSTON.

SC HOUSTON, APOLLO 7, DO YOU READ.

CAPCOM HOUSTON, AFFIRMATIVE, READ YOU.

SC ROGER, I'M READING YOU VERY WEAK, IT
SEEMS WE'VE BEEN RUNNING INTO A LOT OF PASSES HERE WHERE
BETWEEN PASSES WE'RE LEFT WITHOUT A TAPE RECORDER RUNNING
AND WE DON'T QUITE KNOW THE STATUS OF IT WHEN WE ARE LEFT
THAT WAY, WE WOULD LIKE TO BE USING IT TO RECORD SOME OF
THESE PROBLEMS. I ASSUME YOU'RE OBSERVING THE ANOMALY
WE'VE GOT STEEP PRESSURE NOW I'M GOING TO RESERVICE THE
WATER BOILER.

CAPCOM ROGER, I UNDERSTAND, YOU'RE SERVICING
THE WATER BOILER.

RILEY THIS IS APOLLO CONTROL, 11 HOURS 10
MINUTES, WE'VE HAD LOS WITH THE REDSTONE. WE'RE ALONG WAY
FROM THE NEXT AQUITION WE'RE IN THE REVOLUTIONS THAT GO
DOWN OVER THE SOUTHERN HEMISPHERE AND THE NEXT STATION TO
AQUIRE WILL BE THE TRACKING SHIP MERCURY AT 12 HOURS 5
MINUTES 58 SECONDS. THIS IS APOLLO CONTROL AT 11 HOURS
11 MINUTES 20 SECONDS.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 11:43:00 63/1

RILEY THIS IS APOLLO CONTROL, 11 HOURS, 43 MINUTES INTO THE MISSION. AT THE LAST PASS OF APOLLO 7 OVER A TRACKING STATION IN THIS CASE THE REDSTONE, A TRACKING SHIP, WALT CUNNINGHAM MENTIONED A STEAM PRESSURE ANOMALY. FLIGHT DIRECTOR GENE KRANZ AND SOME OF HIS FLIGHT CONTROLLERS HAVE BEEN WORKING THIS PROBLEM. THEY THINK THAT WE'RE SEEING A FREEZE UP OF THE WATER BOILER ON THE PRIMARY COOLANT LOOP OF THE SPACECRAFT. THE SPACECRAFT IS POWERED DOWN CONSIDERABLY AND ON THE NIGHT SIDE OF THE PASS THE WATER BOILER DOES NOT HAVE TO WORK. BUT AS WE COME INTO DAYLIGHT AND HEAT UP, WATER THEN DOES FLOW TO THE BOILERS SO THAT IT CAN GET RID OF HEAT BY EVAPORATING WATER, THAT'S WHAT THE WATER BOILER DOES, AND THEN WHEN WE GO BACK INTO THE NIGHT SIDE IN A LOW POWER CONFIGURATION, IT'S THE BELIEF WE MAY BE GETTING A FREEZE UP. THERE'S WATER STILL IN THE BOILER AND MAY BE FREEZING UP. WE'RE GOING TO GET A DATA DUMP AT THE NEXT PASS OVER THE REDSTONE. WE HAVE A PASS OVER THE MERCURY COMING UP AT 12 HOURS 5 MINUTES ELAPSED TIME, BUT THE MERCURY HAS A PROBLEM WITH THEIR UNIFIED S-BAND ANTENNA WHICH WON'T ALLOW US TO GET A DATA DUMP THERE SO WE'LL WAIT UNTIL THE REDSTONE, GET A DATA DUMP WHICH WILL GIVE US A BETTER UNDERSTANDING OF THIS PROBLEM. AT THE PRESENT TIME, IT APPEARS THOUGH TO BE A FREEZE UP OF THE WATER BOILER AS IT GOES INTO THE NIGHT SIDE. AT 11 HOURS 45 MINUTES, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 12:05:30, MC64/1

RILEY THIS IS APOLLO CONTROL AT 12 HOURS 5 MINUTES INTO THE MISSION. APOLLO 7 IS COMING UP IN TO RANGE OF THE TRACKING SHIP MERCURY ON ITS EIGHTH REVOLUTION. WE'LL MONITOR COMMUNICATIONS THROUGH THIS PASS.

CAPCOM APOLLO 7, HOUSTON, AOS MERCURY.

SC ROGER. THIS IS APOLLO 7, WE TEMPORARILY HAD OUR PRIMARY LOOP BACK WORKING ON THE LINE. IT IS BEGINNING TO LOOK LIKE NEAR THE PRIMARY WATER FLOW VALVE, FOR A WHILE WE THOUGHT IT WAS FLUX SHUTDOWN. I'M WONDERING IF WE START PLAYING WITH IT, WE WILL EVENTUALLY GET IT TO COME BACK UP WITH THE STEAM PRESSURE READING NORMAL FOR A WHILE AND IT WAS CONTROLLING AROUND A TEMPERATURE OF ABOUT 40 C'S. RIGHT NOW WE ARE PEGGED LOW AGAIN. IT LOOKS LIKE IT IS POSSIBLY THE WATER CONTROL SECTION OR THE 240 CONTROLLER.

CAPCOM WALT, SAY AGAIN YOUR LAST SENTENCE THERE. IT LOOKS LIKE WHAT?

SC I BELIEVE IT IS PROBABLY GETTING DOWN TO THE WATER CONTROL SECTION OR THE 240 CONTROLLER. ALSO, WE HAVE A (GARBLE) ACCOMPLISH HERE. THE CRYO STRATIFICATION FOR HYDROGEN. IT IS - BOTH TANKS ARE WITHIN 90 PLUS OR MINUS 5 PERCENT OF MY HYDROGEN AND THE PROCEDURE CALLS TO LET THE PRESSURE RISE TO ABOUT 260 TO 265 AND I BELIEVE THAT IS THE SPEC NUMBER AND I WOULD LIKE THE ECOM TO TELL ME HOW HIGH THESE PRESSURES HAVE BEEN RISING BEFORE THEY - THE HEATERS SHUT OFF SO I WILL KNOW WHERE TO START DOING THE DT OVER.

CAPCOM ROGER. STANDBY. WE WILL GET IT FOR YOU.

SC MORE SPECIFICALLY, I NEED THE DEADBAND THAT THE HYDROGEN PRESSURE TANK 1 AND TANK 2 HAVE BEEN RUNNING BACK AND FORTH BETWEEN.

CAPCOM ROGER.

SC TELL WALLY WE JUST TOOK A COUPLE MORE PICTURES OF HIS MOUNTAINS TO UPDATE THEM.

CAPCOM ROGER.

SC AND WE HAVE BEEN SHOWING DATA ON THAT TAPE AND I HOPE WE CAN GET SOMETHING WORKED OUT ON THAT - THE TAPE DUMPS BECAUSE WE'RE TERRIBLY HANDICAPPED IF WE DON'T HAVE THE TAPE AVAILABLE FOR LOG RUN.

CAPCOM ROGER. WE CONCUR AND I THINK WE'RE BACK IN CYCLE NOW.

SC OKAY, UNDERSTAND. IT WOULD BE NICE IF YOU KNOW THAT WE ARE GOING TO BE GOING OVER THE HORIZON WITHOUT THE TAPE IN A RECORD MODE FOR US, LET US KNOW.

CAPCOM ROGER. WHAT IT AMOUNTS TO ON THESE NIGHT PASSES ARE NIGHT TIME HERE, IF IT WERE DOWN JUST TO ABOUT 1 SITE PER REV TO DUMP IT AND THE MERCURY HAD A BAND OF DOWN RIGHT NOW.

SC ROGER.

SC WE ONLY HAVE TWO STARS AVAILABLE FOR
THE 252 ALIGNMENT.
CAPCOM ROGER. WE WILL HAVE IT SHORTLY.
SC AIR FRAME SIX AND MAGAZINE BRAVO.
CORRECTION MAGAZINE PETER. ...
CAPCOM I MISSED THAT, WALLY. SAY AGAIN.
SC ROGER. (GARBLE) I WOULD ESTIMATE THAT
HE IS A COOLIE.
CAPCOM AH SO.
SC RON, DO YOU HAVE SOMEONE WORKING WITH
TWO STARS?
CAPCOM WAIT ONE. I THINK... WHAT TO DO, DON'T
WE JUST PICK A PAIR OUT OF THE CMP?
SC ROGER. WE WILL GO AHEAD LIKE THAT.
CAPCOM ROGER.
SC ANYONE COME UP WITH ANY SUGGESTIONS ON
OUR ECS PROBLEM? THE MALFUNCTION PROCEDURES CALL FOR
ACTIVATING THE SECONDARY LOOP WHENEVER THE PRIMARY RADIATOR
OUTLET TEMPERATURE GETS ABOVE 48. I HAVE BEEN RESISTING
DOING THAT AND KIND OF GOING BY THE GLYCOL EVAP TEMP. RIGHT
NOW I AM READING ALMOST - RADIATOR OUTLET TEMPERATURE NOW
- MY GLYCOL EVAP OUTLET TEMP IS ON ABOUT 52.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 12:12:30 65/1

SC ...IN FACT, I'M READING OVER THE RADIATOR OUTLET TEMPERATURE NOW BUT LIKE MY GLYCOL EVAP TEMP IS ON ABOUT 52. I WOULD LIKE TO HOLD TO NOT ACTIVATING THE SECONDARY LOOP UNTIL THE PRIMARY GLYCOL EVAPORATOR OUTLET TEMP RATES 60.

CAPCOM APOLLO 7, HOUSTON. WE CONCUR ON THAT WE KIND OF BELIEVE THAT WE'RE REALLY, NOT REALLY HOT ENOUGH AND THEN WE'RE STARTING TO COOL DOWN WHEN IT STARTS EVAPORATING - MAYBE OVER HOUSTON GOING TOO COLD ON THAT THING. WE'RE WORKING ON THAT RIGHT NOW.

SC DURING THE NIGHT PASS, THE GLYCOL EVAPORATOR OUTLET TEMPERATURE GOT DOWN AS LOW AS ABOUT 45 - SOMETHING LIKE THAT BEFORE WE GOT THE EVAPORATOR WORKING AGAIN.

CAPCOM ROGER.

SC DO WE HAVE ANYBODY WHO CAN (GARBLE) DATA (GARBLE).

CAPCOM 7, HOUSTON, LOS.

RILEY THIS IS MISSION CONTROL, 12 HOURS 13 MINUTES. WE'VE HAD LOS AT THE MERCURY. A VERY LOW ELEVATION PASS SCHEDULED AT HAWAII THIS REV NINE-TENTHS OF A DEGREE WHICH WOULD GIVE US - PERHAPS 2 MINUTES ACQUISITION THERE AND WE'RE GOING TO TRY. APPARENTLY, WE'LL COME BACK AT THAT TIME. ACQUISITION AT HAWAII SCHEDULED AT 12 HOURS 25 MINUTES 12 SECONDS. THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 22:21:00 66/1

RILEY THIS IS APOLLO CONTROL, 12 HOURS 25 MIN-
UTES INTO THE MISSION. WE'LL STAND BY THROUGH THIS SHORT
LOW ELEVATION PASS AT HAWAII.

CAP COM APOLLO 7, HOUSTON. I HAVE YOUR DEAD
MAN FOR H1 AND H2 TANKS.

SC ROGER, GO.

CAP COM ROGER. TANK 1, H2 TANK 1, 228 TO 246
H2 TANK 2, 237 AND 255.

SC ROGER. 228 TO 246 AND 237 TO 255 AND I
SEE THAT THE PRESSURES GO SLIGHTLY BACK AND FORTH, ...
(GARBLE) LITTLE OVERHEATING.

CAP COM THAT'S AFFIRMATIVE AND THE R/O AUTO
READER AND YOU CAN TELL WALLY THAT IT LOOKS LIKE STARS 11
AND 12 WOULD BE PRETTY GOOD STARS TO TRY FOR.

SC ROGER, 11 AND 12, THANK YOU. AND WALLY
KIND OF WISHED THE (GARBLE) TEST AFTER THE ALIGNMENT, WE'RE STILL
SHOWING ABOUT 87 PERCENT.

RILEY WE'VE HAD LOS NOW AT HAWAII. THE
APOLLO 7 WILL BE ACQUIRED BY THE REDSTONE AT 12 HOURS 37 MIN-
UTES 56 SECONDS. THIS IS APOLLO MISSION CONTROL AT 12 HOURS
28 MINUTES.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68,GET: 12:37:48 67/1

RILEY APOLLO CONTROL, 12 HOURS 37 MINUTES
APOLLO 7 COMING UP ON THE REDSTONE NOW. WE'LL MONITOR THIS
PASS.
CAPCOM APOLLO 7. APOLLO 7, HOUSTON, OUTFIT ON ME.
CAPCOM APOLLO 7, HOUSTON. LET'S TRY THE
ORIGINAL (GARBLE).
CAPCOM APOLLO 7, HOUSTON. WE GOT (GARBLE) DOPE
ON THE IVB.
CAPCOM APOLLO 7, HOUSTON.
CAPCOM APOLLO 7, HOUSTON.
CAPCOM APOLLO 7, HOUSTON. GO AHEAD AND TRY AND
(GARBLE) AND YOU'RE READING US WEAK. WE DON'T READ YOU.
WE'RE MONITORING THE RELATIVE MOTION OF THE S-IVB AND THE
SPACECRAFT. IT LOOKS LIKE IT MAY REQUIRE ANOTHER PHASING
BURN AT 16 TO 16 AND 1/2 HOURS. THE DELTA-V WILL PROBABLY
BE 6 TO 6 AND 1/2 FEET PER SECOND. OVER.
SC APOLLO 7, I READ YOUR MESSAGE BUT VERY
WEAK.
CAPCOM OH, ROGER.
SC IT'S LUNCH TIME AT 16 HOURS, IS THAT
CORRECT?
CAPCOM THAT'S AFFIRMATIVE - ABOUT.
SC ROGER.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 22:49:00 68/1

CAP COM APOLLO 7, HOUSTON. 30 SECONDS LOS.
SC ROGER, HOUSTON, WE GOT YOUR MESSAGE.
...07 I'VE GOT 4 BALLS, ONE ON THE STAR DATA CHECK AND USE
STAR NO. ONE ALPHERATZ, STAR NO. 7 MENKAR AND WE'RE GOING
TO GO AHEAD AND TAKE THE GYRO TORQUING ANGLE. IS THAT
INTENTIONALLY?

CAP COM APOLLO 7, HOUSTON, WE'LL TAKE OUR ANGLE--
RILEY THIS IS MISSION CONTROL. WE'VE HAD LOS
AT THE REDSTONE. DURING THE FIRST HALF OF THAT PASS WE HAD
VERY LOW SIGNAL STRENGTH, COULD NOT RAISE THE SPACECRAFT,
FINALLY GOT WORD THROUGH THE NETWORK CONTROLLER THAT THE
SPACECRAFT HAD REPORTED TO THE SHIP THAT THEY COULD READ US
VERY WEAK, SO CAP COM RON EVANS STARTED IN THE BLIND WITH
THAT INFORMATION BUT BY THAT TIME THE SIGNAL STRENGTH CAME
UP AND WE WERE ABLE TO GET A LITTLE BIT OF CONVERSATION.
THE ASCENSION ISLAND TRACKING STATION WILL ACQUIRE APOLLO 7
AT 13 HOURS 4 MINUTES 41 SECONDS. AT 12 HOURS 47 MINUTES
THIS IS MISSION CONTROL.

END OF TAPE

RILEY APOLLO CONTROL AT 13 HOURS 4 MINUTES INTO THE MISSION. THE ASCENSION TRACKING STATION IS ABOUT TO ACQUIRE APOLLO 7. WE'LL STAND BY THROUGH THIS PASS.

CAP COM APOLLO 7, HOUSTON. WE'D LIKE FOR YOU TO SWITCH TO SIMPLEX B ON MY MARK.

SC SIMPLEX.

CAP COM APOLLO 7, SWITCH TO SIMPLEX B MARK.

SC HOUSTON, APOLLO 7, SIMPLEX B.

CAP COM APOLLO 7, HOUSTON, ROGER. YOU GOT A LOT MORE GRAPH AT THIS TIME ON SIMPLEX B THAN ON A.

SC HOUSTON, YOU'RE COMING IN CLEAR BUT YOU'RE WAY DOWN. I'D SAY ON LEVEL TWO COMPARED TO THE OTHER.

CAP COM ROGER, AND WALT WE'D LIKE TO VERIFY THAT THE PRIMARY EVAPORATOR WATER CONTROL VALVE ON PANEL 382 IS IN THE AUTO POSITION.

SC ROGER. DID YOU READ (GARBLE) THAT I DID FOR THE REST OF THAT REALIGNMENT?

CAP COM I MISSED THAT SAY AGAIN.

SC ROGER (GARBLE) WHEN I DID THE (GARBLE) FOR THE REST OF THAT REALIGNMENT?

CAP COM AFFIRMATIVE, 3 BALLS ONE AND STARS 1 7 AND SECONDLY WE'D LIKE TO KNOW WHAT PORTION OF THE MAL-FUNCTION PROCEDURES THAT YOU HAVE ACCOMPLISHED ON THE PRIMARY GLYCOL OF THAT ALT TEMP HIGH?

SC ROGER, I'VE COME DOWN TO BOX 18 OR BOX 21 DEPENDING ON HOW LONG YOU (GARBLE) OR WHETHER YOU TAKE THE INTER-MEDIATE CHARACTERISTICS OR NOT. THAT THING STAYED DOWN FOR A LONG PERIOD OF TIME, THEN IT CAME UP FAIRLY SPONTANEOUSLY TO EXTREME PRESSURE.

CAP COM ROGER, WE UNDERSTAND.

SC AND ONE TIME ENDED UP OVER WITH THE PRIMARY LEVER WATER CONTROL VALVE (GARBLE) THERE WAS A POSSIBILITY THE EVAPORATOR WAS FROZE. I'M GOING TO CHECK THE WATER CONTROL VALVE NOW.

CAP COM ROGER. CAN YOU DO THAT WITHOUT DISTURBING OUR SLEEPING CMP?

SC YEAH, WE'RE DOING IT. I ALSO WOULD LIKE TO GET THE SAME PRESSURES THAT THE OXYGEN TANK IS CONTROLLING TO THE ACTUAL PRESSURES.

CAP COM ROGER. I HAVE THEM IF YOU'RE READY TO COPY.

SC READY TO COPY. GO.

CAP COM O2 TANK ONE DEADBAND 880 TO 926. 02 TANK 2 870 912.

SC ROG, THANK YOU AND NOW IF I CAN JUST COLLATE BETWEEN WHAT THESE METERS ARE READING, WE'LL BE ON THAT 5.8 CRYOGENIC TEST.

CAP COM ROGER.

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 23:07:00

69/2

SC
CAP COM

TANDI HYDROGEN TEST IS IN WORK NOW.
ROGER.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 13:10:30 70/1

CAPCOM APOLLO 7, HOUSTON. 1 MINUTE TIL LOS.
SIMPLEX A ON LOS.

SC ROGER.

CAPCOM AND THAT WAS A GOOD TRY ON THE
EVAPORATOR WATER CONTROL. THE EVAPORATOR WATER CONTROL
PRIMER IS IN AUTO AND FOR YOUR INFORMATION, I'M ALSO RUNNING
WITH THE EVAPORATOR WATER CONTROL SECONDARY IN AUTO IN CASE
I DO GET INTO A SITUATION WHERE I HAVE TO ACTIVATE THE
SECONDARY LOOP.

CAPCOM ROGER. UNDERSTAND.

SC HEY, POH, I'S NOT A GOOD SITUATION BUT
I DON'T CONSIDER IT ANY KIND OF REAL PROBLEMS WITH THAT
PRIMARY (GARBLE) RIGHT NOW.

CAPCOM (GARBLE) WE CONCUR WITH THAT.

CAPCOM 7, HOUSTON. WE'RE JUST NOW TAKING A
LOOK AT THE DUMP DATA WE PICKED UP AT REDSTONE.

SC (GARBLE)

RILEY THIS IS MISSION CONTROL. ASCENSION HAS
HAD LOS. WE'LL BE OUT OF TOUCH WITH APOLLO 7 NOW UNTIL IT
COMES WITHIN RANGE OF THE MERCURY TRACKING SHIP OVER IN THE
WESTERN PACIFIC. OVER THIS PASS OVER ASCENSION, WE GOT A
LITTLE BIT MORE INFORMATION FOR THE ENVIRONMENTAL CONTROL
OFFICER HERE TO WORK (GARBLE) THE EVAPORATOR OR THE WATER
BOILER PROBLEM. AS YOU HEARD WALT CUNNINGHAM DOES NOT
CONSIDER IT A MAJOR PROBLEM AT THIS TIME AND THE CONTROL
CENTER HERE CONCURS WITH THAT. THEY ARE CONTINUING TO WORK
ON THE PROBLEM AND ARE EVALUATING THE TELEMTRY INFORMATION
RECEIVED IN THE DUMP OVER THE REDSTONE DURING THE LAST PASS.
WE'LL ACQUIRE AT THE MERCURY. AT 13 HOURS 40 MINUTES 43 SECONDS.
AT 13 HOURS 13 MINUTES, THIS MISSION CONTROL.

END OF TAPE

RILEY APOLLO CONTROL AT 13 HOURS, 40 MINUTES, APOLLO 7, ITS NINTH REVOLUTION COMING UP ON THE TRACKING SHIP MERCURY IN THE WESTERN PACIFIC. GUAM HAS OVERLAPPING COVERAGE WITH THE MERCURY ON THIS REVOLUTION. WE WILL STAND BY THROUGH BOTH OF THOSE PASSES.

CAPCOM APOLLO 7, HOUSTON, THERMAL MERCURY.

S/C ROGER, LOUD AND CLEAR.

CAPCOM ROGER. WE WOULD LIKE TO GET A BIRD

069.1 - READ OUT THE SIX ACCOUNTS. WE WOULD LIKE TO GET YOUR ONBOARD READOUT.

SC WHITE TOOK THE COUNT DOWN HERE. IT HAS ALWAYS BEEN 0 FOR A LONG TIME. IT GOES ABOUT 6-X, T-1. AROUND 5.8 FOR THE HYDROGEN, WITH 90 PERCENT AND IT DOESN'T LOOK TO ME LIKE WE HAVE ANY CLARIFICATION. THE PRESSURE SLOWS DOWN TO A DROP A LITTLE BIT. I AM NOT SURE JUST WHAT ANOID MISSION IS YET.

CAPCOM WALT, YOU ARE COMING THROUGH HF THIS TIME, THE CLOCK THERE AND I CAN'T READ YOU VERY WELL. COULD YOU TALK A LITTLE SLOWER?

SC ALL RIGHT, YOU UNDERSTAND I JUST COMPLETED THE HYDROGEN AT 90 PERCENT PORTION OF THE COMPLETION TEST AND WELCOME THERE, IT WAS MY OWN ESTIMATION THAT WE REALLY DIDN'T HAVE ANY JUSTIFICATION THERE.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 23:50:00 72/1

CAP COM APOLLO 7, HOUSTON.
SC G

WE ARE RESENDING

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 23:50:00 72/1

CAP COM APOLLO 7, HOUSTON.
SC GO AHEAD.

CAP COM ROGER. CURRENT TRACKING INDICATES THAT THE SERVICE MODULE, THE COMMAND SERVICE MODULE WILL TRAIL THE S-IVB AT NCC1 BY ABOUT 30 MILES SO IF WE GO AHEAD AND DO THIS UPCOMING MANEUVER, WE WILL YIELD ABOUT NOMINAL DISPLACEMENT AT NCC1. THE S-IVB ORBIT ON 3RD DAY, HOWEVER, YIELDS A DISPLACEMENT BETWEEN 63 AND 87 MILES, IF WE GO AHEAD AND MAKE THE BURN AND THIS IS ALL BASED ON THAT BEACON TRACKING SO IT'S PRETTY GOOD.

SC OH. (GARBLE) REGISTERS 2000 (GARBLE) LET'S GET TO IT.

CAP COM ROGER. WE'RE WORKING ON THE UPDATE AND WE'LL PROBABLY GIVE YOU OVER REDSTONE.

SC OKAY.

CAP COM LOOKS LIKE THE GETI IS ABOUT 15.50.

SC OKAY.

RILEY MISSION CONTROL AT 13 HOURS 54 MINUTES GUAYMAS HAD LOS. THE TRACKING SHIP REDSTONE IN THE SOUTH PACIFIC WILL ACQUIRE APOLLO 7 AT 14 HOURS 12 MINUTES 38 SECONDS. WE'LL BE BACK AT THAT TIME.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 14:12:30 73/1

RILEY APOLLO CONTROL AT 14 HOURS 12 MINUTES
INTO THE MISSION. THE TRACKING SHIP REDSTONE IS ABOUT TO
ACQUIRE APOLLO 7. WE'LL STAND BY THROUGH THIS PASS.

CAP COM APOLLO 7, HOUSTON. I HAVE YOUR (GARBLE)
PAD TO GIVE YOU. APOLLO 7, HOUSTON. APOLLO 7, HOUSTON
OPPOSITE (GARBLE) APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.
APOLLO 7, HOUSTON THROUGH REDSTONE.

SC ROGER, WE READ YOU.

CAP COM ROGER, I HAVE A (GARBLE) PAD TO GIVE YOU.

SC YOU'RE VERY WEAK BUT WE THINK WE CAN

TAKE IT. GO AHEAD.

CAP COM ROGER. PHASING NO. TWO. 015 52 0000
NA NA NA, 1647 + 1202 00065 32445 NA NA 019 SKIP TO ROLL
PITCH YAW ROLL 181 PITCH 276 YAW 001 COMMENT RCS/SCS BEF
... UP + X THRUSTERS. MONITOR BURN WITH E47. READ THAT?
APOLLO 7, HOUSTON, OPPOSITE ...

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 14:19:30

74/1

CAPCOM APOLLO 7, HOUSTON. DID YOU COPY?
CAPCOM APOLLO 7, 1 MINUTE LOS. ASCENSION
FOURTEEN PLUS THREE NINE.
SC ROGER, WE READ YOUR OLD MESSAGE. DID
YOU COPY BACK?

CAPCOM NEGATIVE ON THE READBACK.
RILEY THIS IS MISSION CONTROL. WE HAVE LOS
AT THE REDSTONE NOW. DURING THE INITIAL PART OF THIS PASS,
WE AGAIN HAD A WEAK SIGNAL STRENGTH PROBLEM. DIDN'T GET
COMMUNICATIONS WITH THE SPACECRAFT UNTIL SEVERAL MINUTES INTO
THE PASS. WE PASSED UP THE INFORMATION THE CREW WILL NEED
TO PERFORM THIS LITTLE EXTRA PHASING MANEUVER THAT'S PLANNED
AT 15 HOURS 52 MINUTES INTO THE MISSION. IT'S REQUIRED
BECAUSE THE DRAG CONDITIONS OF THE S-IVB, THE SECOND STAGE
OF THE LAUNCH VEHICLE ARE NOT AS PREDICTED. PERMISSION AND
WITHOUT THIS BURN AT THE TIME OF THE FIRST SPS BURN TOMORROW
AND THAT'S SCHEDULED FOR 26 HOURS AND 20 MINUTES. THAT'S THE
FIRST BURN TO - IN THE RENDEZVOUS SEQUENCE. WITHOUT THIS
(GAMBLE) WITH IT'S COMING UP AT THE TIME THAT BURN TAKES
PLACE, THE S-IVB STAGE WOULD TRAIL. CORRECTION - THE
COMMAND AND SERVICE MODULE WOULD TRAIL THE S-IVB BY ABOUT
30 MILES. UNDER WHAT IS PLANNED IN FOR THE COMMAND AND
SERVICE MODULE TO BE OUT AHEAD OF THE S-IVB. THE NOMINAL
NUMBER IS 75 MILES AND THIS SECOND PHASING MANEUVER COMING
UP WILL PLACE THE CS. OUT AHEAD BETWEEN 65 AND 87 MILES OF
THE S-IVB WHICH IS STILL IN GOOD POSITION FOR THE MCC-1 OR
THE FIRST SPS BURN AT 26 HOURS 20 MINUTES TOMORROW.
APOLLO 7 WILL BE ACQUIRED BY THE ASCENSION STATION AT 14
HOURS 59 MINUTES. THIS IS MISSION CONTROL AT 14 HOURS
24 MINUTES.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 14:26:00 75/1

RILEY THIS IS MISSION CONTROL AT 14 HOURS
26 MINUTES. THIS UPCOMING PHASING MANEUVER WILL BE A BURN
OF 6 AND A HALF FEET PER SECOND. PROPELLANT COST WILL BE
ABOUT 27 POUNDS IT IS ESTIMATED. BUT EVEN THOUGH THIS IS
A NONPLANNED BURN AND THE FLIGHT PLAN, THERE IS ENOUGH RCS
PAD IN THE PROPELLANT BUDGET TO HANDLE THIS BURN AND IT WILL
NOT AFFECT THE MISSION. THIS IS MISSION CONTROL.

END OF TAPE

RILEY THIS IS MISSION CONTROL AT 14 HOURS, 39 MINUTES. ASCENSION HAS ACQUIRED AT THE APOLLO 7 SPACE-CRAFT. WE WILL STAND BY.

CAPCOM APOLLO 7, HOUSTON THROUGH IN A SECOND.

SC ROGER, HOUSTON. THIS IS APOLLO 7. HOW DO YOU READ THIS CURRENT?

CAPCOM ROGER, WILL OCCUR THIS TIME, WALT. WE PLAN TO RESERVICE THE EVAPORATOR AND THEN SHUT IT DOWN.

SC 520000NA1647 + 120200065324445NA0189 181276001, AND I COPIED ALL WAITING LINE.

CAPCOM APOLLO 7, HOUSTON, SAY AGAIN AT GTI.

SC ROGER. GTI IS 015520000.

CAPCOM I RECKON YOU READ THAT CORRECT. ALL RIGHT, SEVEN, HOUSTON - THE STEPS ON RESERVICING THE SHUT-DOWN ARE REAL GOOD REFORM. MAKE SURE YOU HAVE THEM. BLOCK ALL THE BAD STEAM. STEAM PRACTICALLY AUTO TO MANUAL. IT WILL PRACTICALLY INCREASE FOR 45 SECONDS. BLOCK ALL OF THAT. EIGHTH FUEL FLOW ON FOR A FEW MINUTES AND THEN TURN.

SC ROGER. YOU KNOW I HAVE ONLY DONE THAT TWICE IN THE PAST. AND IF YOU NOTICE NOW THAT D PRESSURE IS UNHOOKED AND COME BACKUP. IT SEEMS TO COME UP WHENEVER THE GLIDE CALL, THE EVAPORATOR OUTLET TEMPERATURE GETS DOWN PRETTY COOL LIKE DURING THE NIGHT. DO YOU WANT ME TO CONTINUE? WE ARE GOING TO MANUAL, INCREASE 45 SECONDS AND RESERVICE THE WATER EVAPORATOR?

CAPCOM AFFIRMATIVE. WE JUST WANT TO RESERVICE IT NOW AND THEN SHUT IT DOWN.

SC ROGER.

CAPCOM THE IDEA WALT IS THAT THE RADIATORS WILL CARRY A LOAD WITHOUT THE PRIMARY EVAPORATOR ON THE LINE.

SC I DON'T THINK WE HAVE ANY MANUAL CONTROL OVER THE STEAM PRESSURE. I AM GOING TO SERVICE THE WATER FLOWING NOW.

CAPCOM ROGER.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 14:46:00 77/1

SC WALLY SEEMS TO HAVE A PRETTY BAD HEAD COLD. HE TOOK TWO ASPIRINS ABOUT 15 MINUTES AGO AND HE HAS BEEN BLOWING HIS NOSE.

CAPCOM WALT, SAY AGAIN. I MISSED THAT.

SC WALLY HAS A PRETTY STUFFED UP HEAD HERE. HE TOOK TWO ASPIRINS ABOUT 15 MINUTES AGO AND HAS BEEN BLOWING HIS NOSE PRETTY MUCH ALL DAY LONG.

CAPCOM ROGER. WE UNDERSTAND.

SC WE WOULD LIKE TO CHECK ON (GARBLED)

CAPCOM ABOUT 1 MINUTE UNTIL LOS THERE, WALT. WE JUST WANT TO MAKE SURE THAT YOU REALIZE WE ARE TRYING TO SHUT DOWN EVAPORATOR AND WE THINK (GARBLED) WILL CARRY THE LOAD.

SC ROGER. SEE YOU ALL LATER.

RILEY THIS IS MISSION CONTROL. WE HAVE HAD LOS AT ASCENSION. NEXT STATION TO ACQUIRE WILL BE THE MERCURY AT 15 HOURS 15 MINUTES. THE APOLLO 7 AT THE TIME OF THIS PHASING MANEUVER AT 15 HOURS 52 MINUTES WILL BE IN CONTACT WITH THE REDSTONE. AT 14 HOURS 48 MINUTES, THIS IS MISSION CONTROL.

END OF TAPE

RILEY THIS APOLLO CONTROL AT 15 HOURS AND 15 MINUTES INTO THE MISSION. APOLLO 7 IS COMING UP WITHIN RANGE OF THE MERCURY TRACKING SHIP NOW. GUAM AGAIN HAS OVERLAPPING COVERAGE HERE SO WE'LL STAND BY THROUGH BOTH OF THESE STATIONS FOR ANY COMMUNICATIONS.

CAP COM APOLLO 7, HOUSTON. I CAN GIVE YOU TIME-HACK AT 35 MINUTES PRIOR TO BURN. FOUR, THREE, TWO, ONE, MARK 35 MINUTES.

SC THAT'S 35 WASN'T IT?

CAP COM AFFIRMATIVE. 35.

SC (CUTTING OUT) AROUND (CUT OUT) HERE AT THE EVAPORATOR AND WE HAVE THE STEAM PRESSURE IN MANUAL AND THE WATER FLOW OFF BUT THAT LAST BIT OF SERVICING I DID, AH DID A GOOD BIT OF INCREASE IN STEAM PRESSURE.

CAP COM ROGER. UNDERSTAND THE LAST BIT OF SERVICING INCREASED THE STEAM PRESSURE?

SC YEAH. THAT LAST TWO MINUTES BROUGHT THE STEAM PRESSURE UP RIGHT HANDEDLY. RIGHT NOW I'M READING ABOUT .20 ON THE STEAM PRESSURE.

CAP COM ROGER. WALT, WE CAN GO WITH THAT. THAT'S OKAY.

SC THAT'S GOOD NEWS. YEAH. RIGHT. IS AN MD THERE OR DO YOU STILL HAVE THOSE EXPERIMENTAL DOCTORS THERE?

CAP COM THEY'RE RIGHT HERE WAITING.

SC YOU KNOW I ASKED ABOUT TAKING A DECON-
GESTION OR ANTIBIOTIC (CUTTING OUT) WHAT'S THE WORD ON
IT WALT, WILL GET THE WORD ON IT GET THE WORD THAT WALT PASSED
BACK EARLIER? I'VE TAKEN TWO ASPIRINS

CAP COM SAY AGAIN. I THINK THAT WAS IN THE
GARBLE PART. COULDN'T MAKE IT OUT. SAY AGAIN THE PROBLEM.
SC I HAVE A NOSE COLD. I'VE ALREADY GONE
THROUGH ABOUT 8 OR 9 KLEENEX WITH SOME PRETTY GOOD BLOWS.
I'VE TAKEN TWO ASPIRIN AND I WAS WONDERING IF THERE WAS
ANYTHING ELSE I COULD TAKE?

CAP COM ROGER.

SC I'D LIKE TO FIND OUT YOUR D RUTHERS ON
THE WATER BOILER AFTER THAT LAST SERVICING BUT PUTTING IT
OFF FOR A WHILE BECAUSE YOU KNOW WE DON'T REALLY NEED IT.
I'D STILL SOMETIME IN THE FUTURE LIKE TO TRY IT AGAIN. I'M
NOT SURE BUT WHAT IT'S NOT WORKING RIGHT NOW.

CAP COM WALT, THIS IS KIND OF WHAT WE EXPECTED
IN THIS CONDITION WHILE NOT RUNNING AND WHAT WE'D LIKE TO DO
IS TRY TO REV, AT LEAST A REV ANYHOW, WITH THE EVAP OFF THE
LINE.

SC WHATEVER YOU THINK.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 15:22:00 79/1

CAPCOM WALLY, HOUSTON HERE. THE DOCTORS ARE
RECOMMENDING THAT YOU TAKE ONE ACTOFED OR THE CODE ECHO.
SC THAT HAS TO DO WITH A DECONGESTANT, IS
THAT IT?
CAPCOM THAT'S AFFIRMATIVE. THAT'S WHAT IT IS.
SC GARBLE.
CAPCOM APOLLO 7, HOUSTON. WE WANT TO TAKE A
LOOK AT THE (GARBLE). WE'D LIKE YOU TO REMAIN IN P 47 FOR
AWHILE AFTER THE BURN ON THE REDSTONE PASS.
SC OKAY.
CAPCOM APOLLO 7, HOUSTON.
SC GO AHEAD.
CAPCOM ROGER, IT LOOKS LIKE WE'RE GOING TO HAVE
ONE FINAL REQUEST AFTER THE BURN HERE. OUR CALCULATIONS
SHOW THAT OUR WAST WATER IS GOING TO BE 85 PERCENT AT ABOUT 19
HOURS AND WE'RE NOT SURE THAT DONN CAN HOOK UP ALL THIS
GOOD DEAL STUFF IN THE MIDDLE OF YOUR GUYS' SLEEP THERE SO
IT'S KINDA AT YOUR DISCRETION. DO YOU WANT TO DUMP IT PRIOR
TO GOING TO ED OR LET DONN DUMP IT SOMETIME AROUND 19 HOURS?
SC IT'S ALL BUT HOOKED UP NOW. WE HAVE
THAT URINE DUMP HOSE HOOKED UP AT ONE END ALL THE TIME. IT'S
A SIMPLE JOB FOR ONE FELLOW WITHOUT DISTURBING US BUT I HAD
MENTIONED WE COULD THINK ABOUT PUTTING THAT WASTE WATER TANK
ON UP TO MORE LIKE 95 PERCENT SO YOU DON'T HAVE TO HAVE QUITE
AS HIGH AN ACTIVITY DUMPING IT ALL THE TIME.
CAPCOM WE'RE KINDA AGREEING WITH YOU IN A WAY,
AND YET WE WOULD KINDA LIKE TO LET IT RUN UP TO THE FULL
POINT A LITTLE LATER ON IN THE MISSION THAN IN THE EARLY
PART OF THE MISSION.
SC OKAY, WE DO HAVE A GAUGE (GARBLE) AT
5 PERCENT (GARBLE) UP ABOUT 90 - (GARBLE)

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 15:29:00 80/1

CAPCOM WALT, I THINK WE CAN GIVE YOU A PROPER
AND ACTUAL NUMBER A LITTLE LATER ON IN THE MISSION HERE.
WHEN WE FIGURE OUT HOW MUCH FUEL CELL THEY ARE DUMPING THE
WATER IN AND (GARBLED).

SC (GARBLED)

RILEY THIS IS MISSION CONTROL. GUAM AS LOS.
THE TRACKING SHIP REDSTONE IN THE SOUTH PACIFIC WILL ACQUIRE
APOLLO 7 AT 15 HOURS 47 MINUTES 58 SECONDS. THAT RCS
PHASING MANEUVER IS DUE TO TAKE PLACE 15 HOURS 52 MINUTES.
AT 15 HOURS 30 MINUTES, THIS IS MISSION CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, CST: 1:55:30 81/1

JAMES THIS IS MISSION CONTROL AT 15 HOURS,
47 MINUTES IN THE MISSION. WE ARE COMING WITHIN RANGE OF
THE REDSTONE NOW. WE ARE 4 MINUTES AWAY FROM THE BURN. WE
WILL STANDBY THROUGH THIS PASS.

CAPCOM APOLLO 7, HOUSTON, THROUGH THE RED
STONE APOLLO -. APOLLO 7, HOUSTON REQUEST AMENE A.

SC ROGER, AMENE A.

CAPCOM ROGER.

SC FRANTICALLY -

CAPCOM ROGER.

SC WE FLIPPED IT IN THAT VENT DURING THAT
LAUNCH. IT IS 0 AND THE DOUBLE EGRESS. YOU CAN SEE THE
DIFFERENCE.

CAPCOM ARE YOU FAR?

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/11/68, GET: 15:54:00 82/1

CAPCOM APOLLO 7, HOUSTON. ONE MINUTE LOS.
I BELIEVE THAT WE GOT OUR MONEY'S WORTH TODAY. HOW ABOUT
GETTING A GOOD NIGHT'S SLEEP.

SC ROGER. RON. THANKS FOR YOUR HELP AND
DONN IS ON WATCH.

CAPCOM ROGER.
JAMES THIS IS MISSION CONTROL, 15 HOURS 56
MINUTES. REDSTONE HAS HAD LOS. THE GUIDANCE OFFICER HERE
IN THE CONTROL CENTER AFFIRMS THAT THAT BURN LOOKED GOOD
HERE. AND AS YOU HEARD WALLY SCHIRRA AND WALT CUNNINGHAM
ARE PREPARING FOR THEIR SLEEP PERIOD NOW. WE WILL HAVE A
VERY LOW ELEVATION PASS AT THE CANARY STATION AT 16 HOURS
21 MINUTES 39 SECONDS. THIS IS MISSION CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 16:20:00 83/1

JAMES THIS APOLLO CONTROL 16 HOURS 20 MINUTES INTO THE MISSION OF APOLLO 7. WE ARE COMING UP ON ACQUISITION POINT WITH CANARY ISLANDS IN ABOUT A MINUTE AND A HALF FROM NOW. WE WILL LISTEN IN ALTHOUGH IT IS POSSIBLE THAT WE WON'T HEAR ANYTHING AT THAT TIME. THE SLEEP PERIOD FOR THE SPACECRAFT COMMANDER SCHIRRA AND LM PILOT CUNNINGHAM HAS BEGUN NOW. ONLY ABOUT 10 MINUTES OFF THEIR SCHEDULE, AND THAT WAS DUE TO THE PHASING RCS BURN OF THE SERVICE MODULE. THE RESULT OF THAT BURN IS 83 TO 98 NAUTICAL MILES - IT WILL BE 83 TO 98 MILES AHEAD OF THE S-IVB AT THE TIME OF THE FIRST SPS BURN TOMORROW. THE NEXT THING TO DO WITH THE ECS WATER TANK DUMP SCHEDULE IS 19 HOURS INTO THE MISSION. IT WILL BE SCHEDULED FOR 28 MINUTES TO DUMP AN APPROPRIATE AMOUNT OF WATER OVERBOARD FROM THE SPACECRAFT FROM THE ECS WATER TANK AND THAT CAN BE MANAGED BY THE ONE PILOT WHO WILL BE AWAKE AT THAT TIME. THE COMMAND MODULE PILOT, EISELE. WE ARE COMING UP IN ACQUISITION WITH CANARY ISLANDS. WE WILL STAND BY FOR WHATEVER MAY COME UP FROM THAT.

CAPCOM APOLLO 7, HOUSTON.

SC HOUSTON, APOLLO 7. GO AHEAD.

CAPCOM ROGER. TWO ITEMS WE WOULD LIKE A CHECK ON THE CMP BIOMED HARNESS WHEN IT IS CONVENIENT. WE ARE NOT DOING ANYTHING AND WE WOULD LIKE TO CHECK THE PIN CONNECTORS, THE SIGNAL CONDITIONERS CONNECTORS AND AT LAST RESORT PRESS DOWN ON THE SENSOR. SECOND ITEM, INFORMATION, IT WILL PROBABLY TAKE ABOUT 28 MINUTES FOR DRAINING THE H2O.

SC ROGER, I HAVE BEEN FIGHTING THIS HARNESS. IT DOESN'T MAKE UP PROPERLY. I DON'T KNOW HOW WE ARE GOING TO GET IT

CAPCOM ROGER.

SC RUNNING WATER.

CAPCOM I AM SORRY APOLLO, I CUT YOU OUT. SAY AGAIN PLEASE.

SC I SAY MY BIOMED HARNESS IS NOT MAKING UP PROPERLY. I DON'T KNOW WHETHER IT IS GOING TO WORK.

CAPCOM ROGER.

JAMES THIS IS APOLLO CONTROL 16 HOURS 23 MINUTES GOING ON 24 MINUTES INTO THE MISSION OF APOLLO 7. WE HAVE PASSED AWAY FROM ACQUISITION WITH CANARY ISLANDS. THE NEXT CONTACT WILL BE WITH THE TRACKING SHIP MERCURY AND THAT WILL BE AT 16 HOURS 51 MINUTES 49 SECONDS. THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 16:32:50 84/1

JAMES THIS IS APOLLO CONTROL. THERE WILL E
A CHANGE OF SHIFT PRESS BRIEFING HERE IN HOUSTON AT THE
PRESS CENTER AT 10 MINUTES TO THE HOUR. THAT'S
APPROXIMATELY 18 OR 19 MINUTES FROM THIS TIME. THIS IS
APOLLO CONTROL.

END OF TAPE

JAMES THIS IS APOLLO CONTROL 17 HOURS 19 MINUTES INTO THE FLIGHT OF APOLLO 7. WE HAD CONTACT AT 16 HOURS 51 MINUTES WITH THE MERCURY TRACKING SHIP AND APOLLO 7. WE WILL ROLL THAT TAPE NOW AND AFTER THAT WE SHOULD HAVE A LIGHT PASS COMING UP WITH REDSTONE TRACKING SHIP.

CAPCOM APOLLO 7, HOUSTON.

SC HOUSTON, APOLLO 7. GO.

CAPCOM ROGER. I HAVE A COUPLE OF ITEMS HERE THAT WE WOULD LIKE VERIFICATION IF YOU HAVE IT THAT THE WATER CHLORINATION WAS PERFORMED AT 11 HOURS AND 20 MINUTES. SECOND ITEM, I MENTIONED IT BEFORE, BUT I COULDN'T UNDERSTAND THE ANSWER. WE WANT TO ADVISE IT WILL TAKE 28 MINUTES TO DRAIN THE WATER.

SC ROGER. UNDERSTAND. 28 MINUTES TO DRAIN THE WATER. YOU ARE REFERRING TO THE WASTE TANK DUMP.

CAPCOM I AM SORRY, WASTE TANK DUMP. AFFIRMATIVE.

SC ROGER. WE ARE ONLY UP TO 40 PERCENT ON WASTE WATER SO WE GOT A WAYS TO GO.

CAPCOM THANK YOU. APOLLO 7, HOUSTON. DID YOU READ ME ON THE WATER CHLORINATION?

SC YES SIR. THAT WAS - WE DID THE CHLORINATION AT 11 HOURS 20 MINUTES.

CAPCOM THANK YOU.

SC HOUSTON, APOLLO 7. COMMAND MODULE PILOT HAS GOT ABOUT 6 HOURS OF SACK TIME AND AT LEAST 4 HOURS OF PRETTY DECENT SLEEP. I WOULD HAVE SLEPT A LITTLE BETTER BUT I AM NOT USED TO GOING TO BED AT 6 O'CLOCK LOCAL TIME FOR ME. I THINK IN A DAY OR TWO I WILL ADJUST TO THE CYCLE.

CAPCOM APOLLO 7, HOUSTON. ROGER.

JAMES THIS IS APOLLO CONTROL. WE ARE NOW 17 HOURS 21 MINUTES INTO THE MISSION. AT 17 HOURS 22 55 WE WILL HAVE CONTACT WITH THE REDSTONE TRACKING SHIP. AT THAT TIME WE WILL GO LIVE AND STAND BY FOR ANY COMMUNICATION THAT WE MAY HAVE.

CAPCOM APOLLO 7, HOUSTON.

SC HOUSTON, APOLLO 7. GO.

CAPCOM ROGER. WE HAVE A PROCEDURE THAT WE WOULD LIKE FOR YOU TO GO THROUGH FOR SOME GROUND ANALYSIS. WE MONITOR THAT YOU ARE IN P00. WE WOULD LIKE FOR YOU TO FOLLOW THIS PROCEDURE: VERB 22, NOUN 21, ENTER.

SC ROGER. YOU WANT ME TO DO VERB 22, NOUN 21, ENTER.

CAPCOM AFFIRMATIVE.

SC IT IS DONE.

CAPCOM THANK YOU. ROGER. NOW GO PLUS 11111 ENTER.

SC ROGER. PLUS 5 ONE'S ENTER.

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 17:19:00 85/2

CAPCOM AFFIRMATIVE. APOLLO 7, HOUSTON. THEY
ARE MERELY MONITORING THIS FROM THE GROUND. ALSO ONE OTHER
POINT. THEY WOULD LIKE TO CONFIRM THE 40 PERCENT READING
ON THE WATER. ON THE WASTE WATER.

SC OH, WAIT A SECOND. STAND BY. THAT IS
75.

CAPCOM ROGER, UNDERSTAND. 75.
SC ROGER, I GAVE YOU THE WRONG NUMBER
BEFORE.

CAPCOM ALL RIGHT.

END OF T/PE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 17:27:00 86/1

CAPCOM APOLLO 7, HOUSTON. ONE MINUTE TIL LOS.
WE'LL BE (GARBLE) BACK TO YOU.

SC ROGER.

JAMES THIS IS APOLLO CONTROL, 17 HOURS 32
MINUTES INTO THE MISSION OF APOLLO 7. WE HAVE THE NEXT
CONTACT COMING UP AND WILL BE WITH CANARY ISLANDS AT 17
HOURS 53 MINUTES 11 SECONDS INTO THE MISSION. DURING THIS
PASS, WE HEARD PASSED UP THE WORDS POO THAT THE COMMAND
MODULE COMPUTER WAS CONFIRMED TO BE IN AN IDLING MODE. FROM
THAT IDLING MODE, THEN THEY PASSED IN A VERB AND A NOUN
WHICH MEANT TO ENTER DIGITAL ENTRY INTO THE COMPUTER TO
TEST THE PULSE INTEGRATING PENDULOUS ACCELEROMETER TO SEE
HOW IT WAS OPERATING. WE ALSO HAD A REPORT THAT 75 PERCENT
NOW IS THE READOUT ON THE AMOUNT OF WASTE TANK WATER INSTEAD
OF 40 PERCENT. IT STILL STANDS THAT AT 19 HOURS THE COMMAND
MODULE PILOT WILL DUMP 28 MINUTES WORTH OF WATER FROM THAT
WASTE TANK. AT 17 HOURS 33 MINUTES INTO THE MISSION. THIS
IS APOLLO CONTROL.

END OF TAPE

JAMES THIS IS APOLLO CONTROL 17 HOURS 52 MINUTES INTO THE MISSION. WE ARE COMING UP ON CANARY ISLANDS AGAIN. WE SHOULD HAVE ACQUISITION AT 17:53:11. AND THAT WILL LAST FOR SOME 7 1/2 MINUTES. WE WILL TIE INTO THAT LIVE. WE NOW HAVE AN APOGEE OF 164.4 NAUTICAL MILES AND PERIGEE OF 120.1 NAUTICAL MILES. THE SPACECRAFT COMMANDER AND THE COMMAND MODULE PILOT ARE SLEEPING AND LUNAR - EXCUSE ME - THE LUNAR MODULE PILOT IS SLEEPING AND THE COMMAND MODULE PILOT IS AWAKE AT THIS TIME. THERE IS NOTHING IN THE FLIGHT PLAN OF ACTIVITY UNTIL 19 HOURS INTO THE MISSION WHEN HE WILL DUMP THE EXCESS WATER FROM THE WASTE TANK FOR 28 MINUTES. AT THIS TIME, LET'S SEE IF WE HAVE ANY CONTACT WITH CANARY ISLANDS.

CAPCOM APOLLO 7, HOUSTON, AOS CANARY.

SC ROGER, HOUSTON. APOLLO 7.

CAPCOM APOLLO 7, HOUSTON. OPPOSITE OMNI PLEASE.

SC ROGER.

CAPCOM APOLLO 7, HOUSTON. COMING UP IN ABOUT 2 MINUTES LOS AT CANARY AND WE HAVE A BRIEF PASS AT MADRID AND IT WILL BE ABOUT 40 MINUTES BEFORE WE PICK YOU UP AT HONEYSUCKLE AND WE WILL NEED THE S-BAND VOLUME UP AT THAT TIME. THAT WILL BE HONEYSUCKLE ABOUT 18:38.

SC ROGER. UNDERSTAND. HONEYSUCKLE S-BAND ONLY 18:38.

CAPCOM ROGER.

JAMES THAT IS THE END OF OUR PASS AT CANARY ISLANDS. AT 18 HOURS INTO THE MISSION OF APOLLO 7, THIS IS APOLLO CONTROL.

END OF TAPE

JAMES THIS IS APOLLO CONTROL 18 HOURS 36 MINUTES INTO THE MISSION OF APOLLO 7. APOLLO 7 IS COMING UP ON AUSTRALIA AT THIS TIME. WE WILL HAVE CONTACT WITH THE SPACECRAFT. HOWEVER, NOT NECESSARILY VOICE CONTACT, BUT WE SHOULD BE GETTING IT, IF ANY, STARTING ABOUT NOW. LET'S TIE INTO THE CONVERSATION AT THAT END.

CAPCOM APOLLO 7, HOUSTON.

CAPCOM APOLLO 7, HOUSTON.

CAPCOM APOLLO 7, HOUSTON.

CAPCOM APOLLO 7, HOUSTON. ONE MINUTE UNTIL LOS HONEYSUCKLE. REDSTONE AT 18 PLUS 57.

JAMES THIS IS APOLLO CONTROL 18 HOURS 44 MINUTES INTO THE MISSION OF APOLLO 7. NO CONTACT WAS MADE ON THAT PASS OVER AUSTRALIA. THE NEXT POSSIBLE CONTACT WILL BE WITH THE REDSTONE TRACKING SHIP AT 18 HOURS 57 MINUTES 30 SECONDS. AT 18:44:52, THIS IS APOLLO CONTROL.

END OF TAPE

JAMES THIS IS APOLLO CONTROL 18 HOURS 57 MINUTES INTO THE MISSION OF APOLLO 7. WE ARE COMING UP NOW ON THE REDSTONE TRACKING SHIP. SHOULD HAVE ACQUISITION IN A MATTER OF ABOUT A MINUTE. WE WILL STAND BY FOR ANY POSSIBLE CONVERSATION.

CAPCOM APOLLO 7, HOUSTON
SC ROGER, HOUSTON. ALL SET AND GO.
CAPCOM ROGER, AOS REDSTONE.
SC ROGER, I MISSED YOU AT HONEYSUCKLE.
CAPCOM ROGER, WE COULDN'T GET LOCK ON.
SC THAT IS WHAT I THOUGHT. IT SOUNDED LIKE IT WAS TRYING THERE A COUPLE OF TIMES.
CAPCOM I THOUGHT I HEARD YOU TRYING TO ANSWER TOO. ALL I HEARD WAS KEYING AND SIDE TONES.
SC YES.
CAPCOM POGUE SAID IN HOUSTON HE WOULD LIKE SOME CALRIFICATION ON THE BIOMED HARNESS. IF YOU CAN, JUST BRIEFLY, WAS IT THE CONNECTOR WOULDN'T STAY TOGETHER OR WHAT?
SC WELL, I GOT IT TOGETHER NOW. ARE YOU GETTING ANY SIGNAL ON IT?
CAPCOM NEGATIVE. OKAY, THAT IS ALL I WANTED TO KNOW.

SC ROGER, I HAD TROUBLE GETTING THE PLUGS TO MAKE UP. THEY WOULD STICK TOGETHER, BUT THEY WOULDN'T QUITE GO ALL THE WAY IN AND LOCK. I FINALLY GOT IT TO LOCK. WHAT IS YOUR H2O WASTE WATER QUANTITY NOW? APOLLO 7, HOUSTON. OPPOSITE OMNI PLEASE? APOLLO 7, HOUSTON, OPPOSITE OMNI, PLEASE

SC ROGER, BILL. I JUST SWITCHED OFF. DID YOU WANT TO GO BACK?

CAPCOM NEGATIVE. STAND BY ONE. APOLLO 7, HOUSTON. NEGATIVE, YOU HAVE IT NOW. WE HAVE COMM AND WE LOST YOU THERE FOR ABOUT A MINUTE.

SC ROGER.
CAPCOM ... CAPCOM. APOLLO 7, HOUSTON, OPPOSITE OMNI PLEASE. APOLLO 7, HOUSTON. ONE MINUTE LOS REDSTONE AND ANTIGUA AT 19 PLUS ONE SIX.

JAMES THIS IS APOLLO CONTROL 19 HOURS 7 MINUTES INTO THE MISSION OF APOLLO 7. WE HAD A LITTLE BIT OF DIFFICULTY THERE. ASTRONAUT POGUE WAS UNSUCCESSFUL FOR A MINUTE OR SO TO MAKE CONTACT BECAUSE THE REDSTONE SHIP WAS HAVING SOME TROUBLE LOCKING UP ON THE VOICE SIGNAL. HOWEVER, DID MAKE CONTACT AND THE DISCUSSION AMONG OTHER THINGS CONCERNED CALRIFICATION ON THE BIOMEDICAL HARNESS WHERE THE READOUTS DURING THE CONTROL CENTER ON HIGH GRADE, ETC. AND AS OF NOW IT IS NOT FUNCTIONING. ALTHOUGH THE MEDICAL PEOPLE SAY THAT THE POWER IN THE EQUIPMENT IS WORKING

JAMES SATISFACTORILY. SO IT MUST BE SOME OTHER PROBLEM. POSSIBLY ON BOARD. AT 19 HOURS 7 MINUTES 54 SECONDS INTO THE MISSION, THIS IS APOLLO CONTROL.

END OF TAPE

RILEY THIS IS APOLLO CONTROL, 19 HOURS,
17 MINUTES INTO THE MISSION OF APOLLO 7. WE HAVE JUST HAD
CAPCOM CONTACT WITH APOLLO 7. AT ANT WE WILL NOW JOIN THE
CONVERSATION.

SC OKAY, THESE ARE TEST METER READINGS.
THEY ARE ALL - THEY ARE 5C CYCLES, 5D IS 4.8, 6A WAS 4.8,
6B AND C WERE ALL 5. THESE WERE TAKEN AT ABOUT 16 HOURS.

CAPCOM ROGER, UNDERSTAND. WHAT IS APOLLO 7
HOUSTON IDEA OF FLIGHT UPDATE?

SC ROGER, GO WITH YOUR FLIGHT PLAN UPDATE.
CAPCOM AT 23 + 53, TV ON. THAT IS AT TEXAS
LOS ON STATE SIDE PASS. THAT IS THE END OF THE FLIGHT PLAN
UPDATE.

SC I UNDERSTAND YOU WANT TVR 23 + 53, HOW
DOES THAT FIT IN WITH OUR BURN AND RENDEZVOUS SEQUENCE?

CAPCOM THAT SHOULD FIT IN ALL RIGHT.

SC OKAY. WE HAVE SOME MUSIC COMING IN THE
BACKGROUND. IS THAT YOU?

CAPCOM YOU MUST BE PICKING UP THE TWILIGHT
ZONE THERE.

SC EVANS, IS SOMEONE TRYING TO PLUG IN A
RADIO PROGRAM TO US OR ARE WE JUST PICKING THAT UP SPIRIT-
TUALLY?

CAPCOM THAT MUST BE A SPURIOUS SIGNAL. NO WE
DON'T HAVE ANYTHING LIKE THAT.

SC OKAY, I AM GETTING A HOT TIP ON SOME
HOSPITAL INSURANCE PLAN FROM SOME GUY.

CAPCOM OKAY. MAYBE THEY ARE TRYING TO TELL
YOU SOMETHING.

SC MAYBE THEY KNOW SOMETHING I DON'T.

CAPCOM APOLLO 7, HOUSTON COMING UP ON LOS ANT
AOS CANARY AT 19 + 27.

SC ROGER, UNDERSTAND. AROUND ANOTHER
12 TICKS ON WATER FOR ME, WILL YOU?

JAMES THIS IS APOLLO CONTROL, 19 HOURS,
24 MINUTES INTO THE MISSION OF APOLLO 7. WE HAD ASTRONAUT
POGUE PASSING UP THE FLIGHT PLAN UPDATE WHICH INDICATES THE
COMPLETION OF APPROXIMATELY ONE DAY, 23 HOURS, 53 MINUTES
INTO THE MISSION. WE HAVE THE GOOD POSSIBILITY OF LIVE
TELEVISION COMING FROM THE SPACECRAFT WHICH WILL BE RELEASED
THAT WILL BE ROUGHLY ABOUT 10 A.M. CENTRAL TIME TOMORROW
MORNING. CORRECTION, THIS MORNING WOULD BE AROUND THE END
OF THE FIFTEENTH REVOLUTION. EISELE ALSO REPORTED HEARING
SPURIOUS RADIO SIGNALS. HE INDICATED THAT IT WAS A RADIO
PROGRAM AND HE WAS GETTING A HOT TIP ON HOSPITAL INSURANCE
PLANS FROM SOMEBODY WHEREUPON ASTRONAUT POGUE SAID MAYBE
THEY ARE TRYING TO TELL YOU SOMETHING AND EISELE RETORTED
WITH MAYBE THEY KNOW SOMETHING I DON'T. NINETEEN HOURS,
25 MINUTES INTO THE MISSION, THIS IS APOLLO CONTROL.

END OF TAPE

JAMES THIS IS APOLLO CONTROL 20 HOURS 02 MINUTES INTO THE MISSION OF APOLLO 7. WE'RE COMING UP VERY SHORTLY IN ABOUT A MINUTE AND A HALF IN CONTACT WITH CARNARVON, AUSTRALIA. AT THAT TIME WE MAY GET SOME CONVERSATION FROM CAP COM HERE AT MCC AND THE SPACECRAFT QUOTING THE FLIGHT PLAN WHICH IS NOT CHANGED TO THIS TIME. SHORTLY AFTER THE CONTACT, WE ARE SCHEDULED TO HAVE AN IMU INITIAL MEASUREMENT UNIT REALIGNMENT USING A MATRIX AND IT WILL ALSO AT THAT TIME THEY WILL OBTAIN DRIFT DATA ON THE INITIAL GYRO AND THE GUIDANCE SYSTEM. WE HAVE SEVERAL SECONDS, ABOUT 30 SECONDS TO GO BEFORE INITIAL CONTACT WITH CARNARVON. AT THIS TIME WE'LL SWITCH OVER AND JOIN SUCH CONVERSATION AS THERE MAY BE.

CAP COM APOLLO 7, HOUSTON.

SC THIS IS APOLLO 7. GO.

CAP COM ROGER, AOS CARNARVON.

SC ROGER. HOUSTON, APOLLO 7.

CAP COM APOLLO 7, HOUSTON.

SC ROGER. I WAS JUST DOING A LITTLE STAR EXAMINATION HERE AT SUNSET WITH THE SUN AT MY BACK SO TO SPEAK AND YOU CAN SEE STARS, QUITE A FEW, OUT THE TELESCOPE HOWEVER THE MINUTE YOU MOVE THE TELESCOPE CONTROLS A LOT OF SANDY WHITE PARTICLES FLUTTER OUT AND THEY OBSCURE THE FIELD OF VIEW. I KNOW WHAT THAT IS. APPARENTLY THESE PARTICLES ARE SOME MOISTURE IN THE OPTIC ASSEMBLY THAT FLIP OUT WHEN YOU'RE MOVING AROUND IN SHAFT MOTION AND THEY GO OUT AND OBSCURE WHAT YOU'RE LOOKING WITH THE SUN SHINING ON THEM.

CAP COM ROGER, I UNDERSTAND THAT YOU CAN SEE STARS IN THE TELESCOPE OKAY WITH THE SUN AT YOUR BACK, HOWEVER WHEN YOU MOVE, THE OPTICS IN SHAFT, THEIR WHITE PARTICLES COME OFF AND SORT OF CLOUD UP THE VIEW.

SC THAT'S RIGHT. LOOKS LIKE ITS SNOWING OUT THERE AND IT WOULD BE IMPOSSIBLE TO DO ANY KIND OF USEFUL ALIGNMENT WITH A SITUATION LIKE THAT. ALSO, AT TIMES WHEN THE SUN IS MORE DIRECT ON THE SIDE WHERE THE OPTICS ARE, IT APPEARS TO BE EITHER A LOT OF LIGHT LEAK OR ABSOLUTE SUN SHINE REFLECTING DOWN INSIDE THE OPTIC ASSEMBLY BUT EXCEPT AT NEAR SUNDOWN WITH THE SUN AT THE OPPOSITE SIDE FROM THE OPTICS YOU JUST DON'T SEE ANYTHING WHEN YOU LOOK OUT THERE. YOU JUST SEE A BIG BLUR OF LIGHT.

CAP COM I UNDERSTAND THAT YOU APPARENTLY HAVE SOMETHING THAT LOOKS LIKE A LIGHT LEAK WHEN THE SUN IS DIRECTLY ON THE SIDE OF THE, AH, IS THAT THE SIDE OF THE -KE $\frac{1}{2}$ WITHOUT THE COLORED LENS.

SC OH, I DON'T KNOW IF IT'S DIRECTLY ON THAT SIDE OR NOT, I CAN HARDLY TELL, BUT AT TIMES WHEN THE SUN IS UP AND WE GET SOME ... AND DRIFTING ATTITUDE HERE I'VE LOOKED IN TO SEE IF I COULD SEE ANYTHING AND IT WAS JUST NEAR IMPOSSIBLE. I THINK A LOT OF LIGHT IN THE TELESCOPE, IT HAD

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 20:02:00 91/2

SC THE APPEARANCE OF A LIGHT LEAK AROUND
SOMEWHERE IN THE ASSEMBLY. I DON'T KNOW IF THAT'S TRUE OR
NOT OR IF IT'S JUST THE REFLECTION COMING IN BUT IT MAKES
IT HARD TO SEE ANYTHING.

CAP COM RIGHT. APOLLO 7, HOUSTON. HAVE YOU
BEEN ABLE TO GO THROUGH AN ALIGNMENT?

SC NOT IN THE DAYTIME. I'M GOING TO DO A
FINE ALIGN HERE IN JUST A MINUTE.

CAP COM OKAY.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 20:12:00 92/1

SC HOUSTON, ARE YOU GETTING THESE GYRO
TORQUES AND ANGLES.

CAPCOM ...STAND BY. APOLLO 7, HOUSTON, ROGER,
WE ARE RECEIVING YAW AND TORQUING ANGLE.

CAPCOM APOLLO 7, HOUSTON. COMING UP LOS
HONEYSUCKLE AT REDSTONE AT 20 PLUS 33.

JAMES THIS IS APOLLO CONTROL 20 HOURS 19 MIN-
UTES INTO THE MISSION OF APOLLO 7. WE HAVE JUST HAD OUR
PASS OVER AUSTRALIA. THE NEXT CONTACT WILL BE WITH THE
REDSTONE TRACKING SHIP AT 20 HOURS 33 MINUTES 14 SECONDS
INTO THE MISSION. DURING OUR AUSTRALIAN PASS, WE HAD SOME
TALK ABOUT THE TELESCOPE, REFERRING TO THE IMU REALIGNMENT
PROCEDURES WHERE THE TELESCOPE AND DARKNESS WITH THE SUN
BEHIND THE ASTRONAUT AND OPERATED SATISFACTORILY AND WHEN
HE MOVED THE OPTICS IN THE SHAFT SNOWY WHITE PARTICLES
APPEARED AS HE SAID, LIKE A SNOW STORM. AT 20 HOURS 20 MIN-
UTES INTO THE MISSION, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, CST: 6:34:35 93/1

JAMES THIS IS APOLLO CONTROL, 20 HOURS,
33 MINUTES INTO THE MISSION OF APOLLO 7. WE ARE SECONDS
AWAY FROM CONTACT THROUGH THE REDSTONE TRACKING SHIP. WE
WILL HAVE CONTACT WITH THE SPACECRAFT AT THIS TIME. WE
WILL BE PASSING UP POSSIBLY A CORRECTION IN THE FLIGHT PLAN
WHICH WILL INCLUDE A BURN OF THE RCS SYSTEM TO CHECK THE
TIPA. HERE WE GO. LET'S JOIN THE CONVERSATION.

CAPCOM APOLLO 7, HOUSTON.

SC ROGER, HOUSTON, GO.

CAPCOM ROGER. IT IS ADVISED THAT WE MONITORED
YOU HAVE HAD A SWITCHOVER TO A SECONDARY LOOP PROPORTIONAL
UNIT IN A PRIMARY LOOP AND REQUEST THAT YOU SWITCH BACK TO
THE PRIMARY OR PROPORTIONAL UNIT.

SC ROGER, STANDBY. TOM, WE ARE NOW BACK
ON 1. DO YOU WANT ME TO LEAVE IT IN 1, OR GO BACK TO AUTO?

CAPCOM GO TO AUTO. PAUL TELLING HOUSTON TO
GO TO AUTO.

SC OKAY.

CAPCOM ALSO, WE ARE NOW MONITORING 85 PERCENT
ON WASTE WATER.

SC SAY AGAIN.

CAPCOM GROUND MONITORS 85 PERCENT, QUANTITY
ON WASTE WATER.

SC I CAN'T READ YOU BILL, YOU'RE COMING IN
GARBLE, WITH A LOT OF STATIC.

CAPCOM ROGER. WASTE WATER DUMP, WASTE WATER
DUMP, WE'RE MONITORING 85 PERCENT.

CAPCOM APOLLO 7, HOUSTON. HOW DO YOU READ NOW?

SC THAT'S BETTER HOUSTON.

CAPCOM ROGER, DID YOU GET MY CALL ABOUT THE
WASTE WATER DUMP?

SC ROGER, SAY AGAIN ABOUT THE WATER DUMP.

CAPCOM WE ARE MONITORING 85 PERCENT QUANTITY
WASTE WATER NOW.

SC ROGER, YOU'RE SAYING YOU GOT 85, I'LL
HAVE TO GET WALLY UP TO GET UNDER HIM, TO GET THOSE PIECES.
I'D RATHER WAIT UNTIL HE WAKES UP, WHICH - HE'LL BE AWAKE IN
ANOTHER HOUR OR SO ANYWAY, COULD WE WAIT TILL THEN?

CAPCOM ROGER, STANDBY.

CAPCOM APOLLO 7, HOUSTON. AFFIRMATIVE, YOU
CAN WAIT ANOTHER HOUR. WE'RE 1 MINUTE LOS REDSTONE, AND
AOS BAHAMAS AT 20 + 49.

SC UNDERSTAND.

HANEY THIS IS APOLLO CONTROL AT 20 HOURS,
39 MINUTES INTO THE FLIGHT OF APOLLO 7. TO CLARIFY WHAT HE
SAID BEFORE, IT IS POSSIBLE THE FLIGHT DIRECTOR IS CONSIDERING

APOLLO 7 MISSION COMMENTARY, 10/12/68, CST: 6:34:35 93/2

JAMES

NOW IN VIEW OF THE FACT THAT THE PIPA,

WHICH IS THE PULSED INTEGRATING PENDULOUR ACCELEROMETERS MOUNTED - THERE ARE THREE OF THEM ON EACH OF THE AXIS IN THE INITIAL MEASURING UNIT IN THE SPACECRAFT AND THE Y-AXIS PIPA HAS BEEN CHECKED OVER THE LAST MANY REVOLUTIONS OF THE FLIGHT AND IT IS POSSIBLE THAT IN ORDER TO CHECK ITS OPERATION MORE THOROUGHLY THAT 1 MINUTE RCS BURN WOULD, IN AN OUT OF PLANE Y-AXIS WOULD BE UTILIZED AND IF THAT WERE UTILIZED, IT WOULD BE SIMILAR BETWEEN THE 22 AND 23 HOUR OF THE MISSION. THIS WAS NOT PASSED TO THE CREW BY CAP COM AT THIS TIME, IT'S STILL UNDER CONSIDERATION AND THERE'S NOTHING OF ANY ALARM, CERTAINLY; BUT WE WILL KEEP YOU POSTED ON THE PROGRESS OF THAT SITUATION. AT 20 HOURS, 41 MINUTES INTO THE FLIGHT OF APOLLO 7, THIS IS APOLLO CONTROL.

END OF TAPE

HANEY THIS IS APOLLO CONTROL 20 HOURS 50 MINUTES INTO THE MISSION OF APOLLO 7. WE ARE COMING UP ON MILA ACQUISITION IN FLORIDA AND WE SHOULD HAVE SOME CONVERSATION. THAT POSITION SHOULD BE 20:50:19 5 SECONDS AGO. SO LET'S JOIN THE CONVERSATION.

CAPCOM APOLLO 7, HOUSTON.

SC HOUSTON, THIS IS APOLLO 7, GO.

CAPCOM DON, I WOULD LIKE TO BRIEF YOU ALL ON SOMETHING THAT HAS COME HERE AND IT HAS TO DO WITH THE Y PICKUP. STATEMENT IS MADE THAT BASED ON TELEMETRY READOUTS, WE FEEL OR SUSPECT THAT Y PICKUP COUNTS ARE NOT GETTING INTO THE CMC. WE'VE BEEN MONITORING PRACTICALLY ZERO. NOW, THIS IS STILL SORT OF IN FERMENT, BUT IT LOOKS LIKE NOW THEY WOULD LIKE TO HAVE AN RCS BURN COMPLETED TO PERFORM A CHECK ON THE Y PICKUPS. IF SO, THIS WILL BE DONE ON THE NEXT REV OVER TEXAS.

CAPCOM APOLLO 7, HOUSTON. THIS WOULD BE SORT OF A SMALL BURN +Y THEN -Y THEN TOTAL DELTA-V ABOUT 5 FEET PER SECOND.

SC (GARBLE) YOU HAD SOMETHING FOR ME AND THEN YOU SAID SOMETHING ABOUT A SMALL BURN. WOULD YOU RUN IT Y AGAIN, PLEASE?

CAPCOM ROGER, APOLLO 7, HOUSTON. HOW DO YOU READ NOW.

SC PERFECT. IT'S LOUD AND CLEAR.

CAPCOM RIGHT. BASED ON TELEMETRY READOUTS, WE SUSPECT THAT THE Y AXIS PICKUP COUNTS ARE NOT GETTING INTO THE CMC. IN ORDER TO CHECK THIS OUT, WE WOULD LIKE TO DO A SMALL RCS TRANSLATION +Y AND THEN -Y, TOTAL TEST WILL CONSUME ABOUT 10 POUNDS OF FUEL AND IT'S PROPOSED THAT THIS BE PERFORMED AT 22 + 23 AND WILL BE OVER TEXAS ON YOUR NEXT PASS.

SC OKAY, 22 + 23, YOU WILL WANT A +Y AND A -Y. DO YOU WANT US TO HAVE A PROGRAM UP LIKE 47, THEN?

CAPCOM OKAY, I'LL GO THROUGH THE PROCEDURE THAT IS PROPOSED HERE NOW. STEP 1, WE WOULD LIKE TO - THE TEST TO BE DONE IN TWO, ALSO WE WOULD LIKE TO HAVE A- Z ROLL ENABLED. THEN ATTITUDE WOULD BE ROLL 180, PITCH 326 AND YAW 0. WITH THAT ATTITUDE, WE WOULD LIKE A +Y TRANSLATION OF 7 SECONDS, WAIT 30 SECONDS, THEN TRANSLATE -Y FOR 7 SECONDS, THEN TURN THE A-Z ROLL BACK OFF.

SC WAIT A SECOND, JUST HOLD THE PHONE. YOU WANT TWO, YOU WANT A-Z ROLL ENABLED, I GOT 180, 3260 ROLL, AFTER THAT I WAS REPLYING ON THAT BUT YOU WERE TALKING. WOULD YOU SAY ALL THAT AGAIN TO THE ATTITUDE?

CAPCOM RIGHT, SORRY ABOUT THAT. I WILL GO OVER IT SLOWER. ROGER, I'LL GO BACK OVER IT. YOU GOT

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 20:50:00

94/2

CAPCOM CORRECTLY IF WE DO WANT IT IN TWO, AND WE WOULD LIKE THE SCS CHANNEL AC ROLL ENABLED ALSO FOR THE TEST. ATTITUDE, ROLL 180, PITCH 326, YAW 0, WITH THAT ATTITUDE, TRANSLATE +Y 7 SECONDS, THEN WAIT 30 SECONDS - 30 SECONDS, THEN TRANSLATE -Y FOR 7 SECONDS AND THE AC ROLL CHANNEL BACK OFF.

SC ROGER. YOU HAVE A TERRIBLE SQUEAL IN THERE, BILL, I DON'T KNOW WHAT IT IS. I UNDERSTAND AND YOU WANT +Y FOR 7 SECONDS, THEN PAUSE 30 SECONDS, THEN -Y 7 SECONDS. NOW AT WHAT TIME AGAIN DID YOU WANT THIS, 22 + HOW MANY?

CAPCOM WE WOULD LIKE THAT AT 22 HOURS AND 23 MINUTES. THAT WILL BE OVER TEXAS.

SC OKAY, JUST OUT OF CURIOSITY, WHAT DO YOU HOPE TO PROVE BY HAVING ONLY TWO GO IN THERE. THAT WON'T - CERTAINLY WON'T PUT INTO THE SAME VECTOR IF YOU DO THAT.

CAPCOM WELL, ACTUALLY WHAT WE WANT TO DO IS MONITOR YOUR PIPPAS AND SEE IF IN FACT THEY ARE FEEDING INFORMATION INTO THE COMPUTER.

SC I SEE.

CAPCOM ALSO I HAVE A BLOCK DATA UPDATE IF YOU WILL CALL ME WHEN YOU ARE READY TO COPY.

SC ALL RIGHT, STAND BY.

SC GO AHEAD WITH YOUR BLOCK UPDATE.

CAPCOM ROGER. BE FOR 015 DASH 1 ALPHA.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 20:58:00 95/1

SC I'M READY TO VERIFY YOUR BLOCK UPDATE.
CAPCOM ROGER 015 - 1 ALFA PLUS 291 MINUS 0629
0221042-4275-016-1 BRAVO PLUS 312 MINUS 0630 0234641 4539
017-1 ALFA PLUS 298 MINUS 0629 025 22 18 4856 018-1 ALFA
PLUS 252 MINUS 0685 026 56 28 5106 019-4 ALFA PLUS 314 MINUS
1624 029 43 42. APOLLO 7 HOUSTON, ARE YOU READING?

CAPCOM APOLLO 7 HOUSTON
SC ROGER GO AHEAD HOUSTON. YOU DROPPED
OUT THERE FOR THREE OR FOUR MINUTES.
CAPCOM ROGER, MEYER HERE. HOW FAR DID WE GET
THROUGH ON THAT?

SC JUST UP TO 15.
CAPCOM ROGER. DID - OKAY, I'LL GO THROUGH
015-ALFA BRIEFLY AGAIN. 015-1 ALFA PLUS 291 MINUS 0629 022
10 42 4275. STARTING WITH THE NEXT ONE 016-1 BRAVO PLUS
312 MINUS 0630 023 4641 4539 027-1 ALFA PLUS 298 MINUS 0629
025 2218 4856 018-1 ALFA PLUS 252 MINUS 0685 026 5628 5106
019-4 ALFA PLUS 314 MINUS 1624 0294342 4363 0202-4 ALFA
PLUS 310 MINUS 1623 0341829 4679 021-4 ALFA PLUS 261 MINUS
1633 032

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 210600 96/1

JAMES ... 21 - 4 ALPHA PLUS 261 MINUS 1633.
0325356 4 NINER 44. STANDING BY FOR A READ BACK.
SC ROGER, WE (GARBLE) 015-ALPHA PLUS 291
MINUS 0629 0221042 4275 016-1 BRAVO PLUS 312 MINUS 0630
02346414539 017-1 ALPHA PLUS 2 NINER 8 MINUS 0629 0252218
4856 018-18 PLUS 252 MINUS 0685 02656285106.
CAP COM APOLLO 7, HOUSTON: APOLLO 7, HOUSTON.
APOLLO 7, HOUSTON. APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.
SC ROGER, GO.
CAP COM ROGER, YOU GOT ONLY PART OF THE READ
BACK, IF YOU WOULD CONFIRM IN THE THIRD BLOCK 017-1 ALPHA,
SECOND LINE PLUS 2 NINER 8.
SC ROGER, PLUS 2 NINER 8.
CAP COM OKAY, IF YOU WOULD PICK UP AND READ AS
FAR AS YOU CAN GET, STARTING WITH 019-4 ALPHA.
SC OKAY, HERE GOES.
16240294342 4363 020-4 ALPHA PLUS 310 MINUS 1623031829 4679
021-48 (VOICE FADES OUT).

JAMES THIS IS APOLLO CONTROL, 21 HOURS, 11 MIN-
UTES, 42 SECONDS INTO THE MISSION OF APOLLO 7. AS YOU HEARD
ON THAT COMMUNICATION BETWEEN CAP COM AND APOLLO 7, THE
FLIGHT DIRECTOR, JERRY GRIFFIN HAS DECIDED THAT WE NEED AN RCS
BURN TO A MINIMAL BURN TO CHECK THE PIPA OR THE ACCELEROMETER,
PULSED INTEGRATING PENDULOUS ACCELEROMETER COUNTS ONBOARD THE
SPACECRAFT. THIS BURN WILL TAKE PLACE AT 22 HOURS, 23 MINUTES
INTO THE MISSION. THE REASON THAT IT IS BASED ON TELEMETRY
READOUTS, THE PIPA OR ACCELEROMETER COUNTS MAY NOT BE GETTING
INTO THE COMMAND MODULE COMPUTER. NOW, THIS PARTICULAR Y-AXIS
ACCELEROMETER, IF YOU CAN IMAGINE THE ASTRONAUTS LYING ON
THEIR COUCH, THE Y-AXIS WOULD GO FROM HIP TO HIP. SO THIS
ACCELEROMETER WOULD MEASURE VELOCITY CHANGES AND TRANSLATION
ALONG THE AXIS, NOT AROUND THE AXIS. THEREFORE, AN RCS BURN
WOULD - WILL TAKE PLACE 22 HOURS, 23 MINUTES INTO THE MISSION
AND IT WILL BE IN IMUP, THAT IS THE PLATFORM, THE IMU PLATFORM,
WILL BE IDLING, ROLL 180 DEGREES, PITCH 326 DEGREES, YAW 0;
AND THEY WILL BURN ON THAT Y-AXIS, ALONG THE Y-AXIS A TRANS-
LATION BURN FOR 7 SECONDS AND THEY WILL WAIT FOR 30 SECONDS,
THEN THEY WILL BURN ON -Y THE OTHER WAY ALONG THE AXIS FOR
ANOTHER 7 SECONDS, AND THEN HERE IN THE CONTROL CENTER, THEY
WILL READOUT WHETHER OR NOT THE PIPA COUNTS ARE GETTING INTO
THE COMMAND MODULE COMPUTER, IF IT INFLUENCES THE PIPA READ-
OUTS. AT 21 HOURS, 14 MINUTES INTO THE MISSION, THIS IS
APOLLO CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 21:32:00 97/1

JAMES THIS IS APOLLO CONTROL 21 HOURS 37 MINUTES INTO THE MISSION OF APOLLO 7. WE ARE ABOUT 10 SECONDS AWAY FROM ACQUISITION AT CARNARVON, AUSTRALIA, SO LETS JOIN WHAT CONVERSATION THERE MAY BE.

CAPCOM APOLLO 7, HOUSTON.

SC ROGER HOUSTON, APOLLO 7. GO.

CAPCOM ROGER. AOS CARNARVON. I ALSO HAVE AN ADVISORY. WE'RE MONITORING 90 PERCENT, 90 PERCENT ON WASTE WATER NOW, AND WE'D LIKE TO GET A DUMP WHENEVER - AS SOON AS IT IS CONVENIENT.

SC OKAY. WALLY IS STILL IN THE SACK. AS SOON AS HE IS UP WE'LL DUMP IT AND MEANWHILE I'M STARTING TO MANEUVER AROUND TO THE ATTITUDE FOR THAT LITTLE TEST MANEUVER YOU WANT TO DO.

CAPCOM ROGER. THANK YOU.

CAPCOM APOLLO 7, HOUSTON. WE'RE ABOUT - A LITTLE OVER 1 MINUTE TO LOS CARNARVON. REQUEST S-BAND VOLUME UP PLEASE.

SC ROGER. S-BAND VOLUME GOING UP.

CAPCOM THANK YOU.

JAMES THIS IS APOLLO CONTROL 21 HOURS 45 MINUTES INTO THE MISSION OF APOLLO 7. EVIDENTLY WE'LL HAVE NO MORE CONVERSATION ON OUR AUSTRALIAN PASS. ON THIS REVOLUTION, 14TH REVOLUTION, GOING - WELL, CORRECT THAT, THE 15TH, THE BEGINNING OF THE 15TH REVOLUTION WE WILL HAVE THE SERVICE MODULE RCS BURN TO TEST THE ACCELEROMETER AND TO GET A READOUT HOPEFULLY ON WHETHER OR NOT THE ACCELEROMETER COUNTS ARE GETTING INTO THE COMMAND MODULE COMPUTER. THIS IS TO BE DONE AT 22 HOURS 23 MINUTES OVER TEXAS. AT 21 HOURS 46 MINUTES, THIS IS APOLLO CONTROL.

END OF TAPE

JAMES THIS IS APOLLO CONTROL 21 HOURS 54 MINUTES INTO THE MISSION OF APOLLO 7. WE HAD FURTHER CAPCOM COMMUNICATION WITH THE CREW OF APOLLO 7 OVER AUSTRALIA AND IT IS TAPED AND I WOULD LIKE TO BRING IT TO YOU NOW.

CAPCOM APOLLO 7, HOUSTON.

SC ROGER, HOUSTON GO, APOLLO 7.

CAPCOM ROGER. AFTER THE RCS TEST OVER THE STATES, WE WILL BE SENDING UP TWO NAV LOADS AND ONE TARGET LOAD AND WE WILL GET TO WORK ON THEM AS SOON AS WE CAN.

SC OKAY, FINE. HEY BILL?

CAPCOM RIGHT, GO.

SC ROGER. A COUPLE OF HOURS AGO, I NEGLECTED TO TELL YOU BEFORE, I'M SORRY, WE HAD AN ANOMALY UP HERE. WE HAD A AC BUSS 1 DROP OUT AND ALL WE DID WAS RESET IT AND IT KEPT ON RUNNING AND WE NEVER DID SEE ANYTHING ANOMALOUS OTHER THAN THAT, OTHER THAN WE CONFIRM THAT THE VOLTAGE HAS DROPPED OFF AND THE INVERTER COME OFF THE LINE APPARENTLY.

CAPCOM OKAY, YOU HAD AN AC BUSS 1 DROP OUT AND YOU RESET IT AND IT WAS OKAY BUT YOU DID CONFIRM IT WAS A BONA FIDE MALFUNCTION BECAUSE THE VOLTAGE DID DROP.

SC THAT'S RIGHT. ALL THREE PHASES WERE - WELL, WERE PEGGED ON THE BOTTOM OF THE METER AND ALL WE DID WAS HIT RESET AND PUNCH THE WARNING LIGHTS OFF AND IT KEPT RIGHT ON RUNNING.

CAPCOM OKAY, THANK YOU VERY MUCH. THAT IS COPIED.

SC OKAY, WE'VE HAD NO TROUBLE WITH IT SINCE. EVERYTHING IS NORMAL.

CAPCOM ALL RIGHT, THANK YOU.

CAPCOM APOLLO 7, HOUSTON. COMING UP ON LOS AT HONEYSUCKLE. WE WILL HAVE ACQUISITION TEXAS AT 22 + 19.

SC ROGER. YOU ARE SAYING 22 + 19.

CAPCOM RIGHT.

JAMES THIS IS APOLLO CONTROL. THAT CONCLUDED OUR AUSTRALIAN PASS. OUR NEXT CONTACT WILL BE ON OUR STATESIDE PASS COMING OVER TEXAS AND AT 22 HOURS 23 MINUTES WE WILL HAVE A BURN OVER TEXAS OF THE RCS SERVICE MODULE ENGINES AND THAT WILL TEST THE PULSE INTEGRATING PENDULOUS ACCELEROMETER STATUS IN THE SPACECRAFT. THE FLIGHT DIRECTOR IS CONCERNED THAT POSSIBLY THIS ACCELEROMETER, THE COUNTS FROM THE ACCELEROMETER MAY NOT BE GETTING INTO THE COMMAND MODULE COMPUTER. THE COMMAND PILOT AND THE LM PILOT ARE DUE TO BE AWAKENED IN A MATTER OF MOMENTS ON THE HOUR AND WE SHOULD BE IN CONTACT WITH TEXAS AND THE SPACECRAFT AT 22 HOURS 19 MINUTES 52 SECONDS. AT 21 HOURS 57 MINUTES THIS IS APOLLO CONTROL.

END OF TAPE

JAMES THIS IS APOLLO CONTROL AT 22 HOURS, 19 MINUTES INTO THE MISSION OF APOLLO 7. AT THIS TIME, WE DO NOT HAVE CONTACT, BUT WE WILL WITH THE SPACECRAFT AT 22 HOURS, 1952. THE SPACECRAFT COMMANDER AND THE LM PILOT SHOULD HAVE BEEN AWAKENED ON THE HOUR, 19 MINUTES AND 27 SECONDS AGO. THERE WAS A LITHIUM HYDROXIDE CHANGE SCHEDULED, THE SECOND CHANGE SCHEDULED IN THE FLIGHT PLAN, WHICH WE ASSUMED HAS TAKEN PLACE. AT 22 HOURS, 23 MINUTES, WE ARE COMING UP ON THE SERVICE MODULE RCS REACTION CONTROL SYSTEM BURN TO TEST THE ACCELEROMETERS IN THE IMU. WE NOW HAVE CONTACT WITH THE SPACECRAFT. LETS JOIN THE CONVERSATION.

CAPCOM 22 HOURS, 20 MINUTES, 9, 10, 11, 12.
SC ROGER, WE'RE (GARBLE).
CAPCOM AND COUNTING DOWN TO BURN, 2 MINUTES AND

38, 7, 6, 5.

SC ROGER, THANK YOU.
SC HOUSTON, APOLLO 7. DO YOU READ?
CAPCOM ROGER, APOLLO 7, HOUSTON. GO.
SC ROGER, I'M ON THE RIGHT LEAD HEAD-SET.

I COMMENCED DUMPING THE WASTE WATER TANK ABOUT 2 MINUTES. I'D LIKE TO HAVE YOU CONFIRM THE TEMPERATURE IN THAT OUTLINE, WHEN EVER YOU GET A CHANCE.

CAPCOM ROGER.

SC AND I'M GOING TO SEND DOWN, AS I TOLD YOU ABOUT, THE AC BUSS 1, TEMPORARY GLITCH THERE. I CAN'T FIGURE WHY IT CAME OFF, I DON'T THINK WE HAVE THE AUTOMATIC DISCONNECT DISCONNECT ANYMORE.

CAPCOM ROGER, WE COPY THAT ONE.

CAPCOM APOLLO 7, HOUSTON, WE WOULD LIKE A TLM INPUT TO HIGH PLEASE, TELEMETRY INPUT HIGH.

SC LOOK, IF YOU GUYS ARE IN THE MIDDLE OF A DUMP, I HAVE TO GO PLAN THE E SET TO DO THAT. IF YOU ARE IN THE MIDDLE OF A DUMP, I'M GOING TO STOP IT.

CAPCOM WE'RE NOT DUMPING.

SC YOU GUYS CAN EITHER STOP YOUR DUMP IN COMMAND HIGH OR I'M GOING TO DO IT.

CAPCOM APOLLO 7, HOUSTON, WE ARE NOT DUMPING.

SC OKAY, THANK YOU.

SC READY IN HIGH?

CAPCOM RIGHT. (GARBLE)

SC AFFIRMATIVE.

SC ROGER. WE'RE GOING TO DO A COUNTDOWN

TO THE BURN.

CAPCOM ROGER.

SC 4, 3, 2, 1, MARK.

CAPCOM APOLLO 7, HOUSTON. THAT PIPA CHECK

CAPCOM LOOKED GOOD. GOOD INFORMATION AND WE
WILL BE UPDATING YOUR PIPA BIAS LATER.
SC ROGER, UNDERSTAND THE CHECK LOOKED GOOD.
THANK YOU. GLENN, WE CHECKED THE PIPA'S ON HERE TIGHT AND
I'VE GOT JUST ABOUT 0 PIPA BIAS WHEN I DID, ALTHOUGH THERE
IS SOMEONE ELSE LOADED IT IN, I WAS A LITTLE SUSPICIOUS
ON THE BASIS OF THAT.
SC YOU SAY YOU DID GET OUTPUTS FROM IT
AND YOU THINK WE'RE STILL OKAY.
CAPCOM ROGER, IT LOOKS SO GOOD, IT FOOLED US.
SC OKAY.
CAPCOM WE WERE THINKING ALONG THE SAME LINES
AS YOU WERE.
SC ALRIGHT, I TRY TO GET AN UPDATED BIAS
THEN.
CAPCOM ROGER.
SC WASTE WATER QUANTITY DOWN TO 50 PERCENT,
HOW ARE YOU DOING IT.
CAPCOM STANDBY.
SC CAN YOU TELL ME WHAT THAT DUMP LINE
TEMPERATURE IS?
CAPCOM APOLLO 7, HOUSTON. I'M TRYING TO GET
THAT INFORMATION FOR YOU, STANDBY. YOUR DUMP TEMPERATURE
IS 66 DEGREES AND THE QUANTITY IS NOW READING 47.2.
SC ROGER, THANK YOU, WE'RE JUST ABOUT IN
AGREEMENT WITH THAT.
CAPCOM APOLLO 7, HOUSTON. IF YOU ARE READY
TO ACCEPT, WE'LL SEND UP YOUR NAV LOAD.
SC IF YOU HAVE TIME THIS PASS, WHY DON'T
YOU GIVE US AN UPDATED READOUT ON OUR QUAD RCS QUANTITIES.
CAPCOM YOUR RCS (GARBLE) QUANTITIES?
SC THAT'S AFFIRMATIVE.
CAPCOM ROGER, STANDBY.
CAPCOM APOLLO 7, HOUSTON, WE'LL BRIEF YOU ON
THAT JUST A LITTLE BIT LATER.
SC UNDERSTAND.
CAPCOM APOLLO 7, HOUSTON. WILL YOU GO TO
ACCEPT, PLEASE.
SC ACCEPT TELEMETER.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 22:29:00 100/1

CAPCOM APOLLO 7 HOUSTON, YOU ARE GO FOR A 33
DASH 1

SC ROGER GO FOR 33 DASH 1. DID YOU RECEIVE
OUR COMMENT, WE HAD A FLIGHT PLAN UPDATE FOR TV UD AND WE
WILL BE UNABLE TO SUPPORT ANYTHING BUT THE SCHEDULED FLIGHT
PLAN ACTIVITY UNTIL AFTER THE RENDEZVOUS.

CAPCOM ROGER, UNDERSTAND.

CAPCOM APOLLO 7 - HOUSTON. I AM STILL WAITING
FOR THE EXACT NUMBER, BUT YOUR RCS PROPELLANT QUANTITY DOES
LOOK NEAR NOMINAL

SC STANDING BY

SC HEY, YOU NOTICE ANY DIFFERENCE IN THE
FIRST PART QUALITY, I'M ON THE LIGHTWEIGHT HEADSET NOW.

CAPCOM I WAS READING DONN MUCH MORE CLEARLY.

SC UNDERSTAND

CAPCOM APOLLO 7 - HOUSTON BOTH NAV LOADS AND
TARGET LOADS IN T COMPUTER ARE YOURS, ALSO I HAVE THE, A
LIST OF THE RCS USABLE PROPELLANTS, QUAD A, 285, B 299, C 281
D 297

SC ROGER YOU SAY 285, 299, 281 AND 297
RIGHT?

CAPCOM APOLLO 7 - HOUSTON AFFIRMATIVE. I AM
TRYING TO GET THAT CONVERTED TO PERCENT.

SC WE WOULD LIKE A TOTAL PERCENTAGE READOUT
ON THAT.

HANEY THIS IS APOLLO CONTROL, 22 HOURS 34 MIN-
UTES INTO THE MISSION OF APOLLO 7. IN THAT PASS OVER THE
UNITED STATES, WE COMPLETED THE SERVICE PROPULSION SYSTEM
RCS BURN. WE GAVE THEM AN UPDATE ON THE AMOUNT OF PROPELLANT
LEFT IN THE RCS SYSTEM AND WE CONFIRMED THAT THE WASTE WATER
PERCENTAGE IS DOWN TO 47.2 PERCENT IN QUANTITY, WHERE IT HAD
BEEN 85 PERCENT. SO THE DUMP WAS SATISFACTORY AND THE BURN
WAS SATISFACTORY FOR THE PIPA CHECK. TO REPEAT, THE PURPOSE
OF THE BURN THAT WAS NOT ORIGINALLY SCHEDULED IN THE FLIGHT
PLAN WAS BASED ON THE FACT THAT THE FLIGHT DIRECTOR WAS CON-
CERNED BECAUSE THE PIPA WHICH IS THE PULSE INTEGRATING
PENDULOUS ACCELEROMETER IN THE INSTRUMENT MEASURING UNIT AND
THE GUIDANCE AND NAVIGATION SYSTEM ON THE SPACECRAFT. THEY
WERE CONCERNED THAT THE ACCELEROMETER COUNTS MAY NOT BE GET-
TING INTO THE COMMAND MODULE COMPUTER. THIS IS AN INTEGRAL
PART OF THE GUIDANCE AND NAVIGATION SYSTEM. THERE ARE THREE
SUCH ACCELEROMETERS MOUNTED IN THE INSTRUMENT MEASURING UNIT
AND THEY MEASURE ALONG ALL THREE AXES, X, Y, AND Z. THIS
PARTICULAR ACCELEROMETER THAT WAS IN QUESTION WAS THE Y AXIS
ACCELEROMETER AND THAT ACCELEROMETER HAS NOW PROVEN FROM

APOLLO 7 MISSION COMMENTARY, 10/12/68,, GET: 22:29:00 100/2

HANEY GROUND READOUTS TO BE OPERATIONAL. THE
NEXT CONTACT WE WILL HAVE IS WITH CANARY ISLANDS, 22 HOURS
37 MINUTES INTO THE MISSION. IT IS NOW SHORTLY A LITTLE LESS
THAN ONE MINUTE FROM THIS TIME SO WE WILL SWITCH OVER FOR ANY
FURTHER COMMUNICATION FROM THE SPACECRAFT.

CAPCOM	APOLLO 7 - HOUSTON	APOLLO 7 - HOUSTON
SC	HOUSTON - APOLLO 7 - GO	
CAPCOM	ROGER, REGARDING THE.....	

End of Tape

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 22:39:00 101/1

CAPCOM . APOLLO 7, HOUSTON.
SC ROGER, HOUSTON, APOLLO 7. GO.
CAPCOM ROGER. REGARDING THE FLIGHT PLAN, NOW,
PROBLEM HERE, WE WOULD JUST ASK IF HE CONSIDERED IT, AND IT
IS IN THERE AT THIS PARTICULAR TIME BECAUSE OF THE PASSAGE
OVER THE SITE.
SC ROGER, BILL, I UNDERSTAND. WE'RE GOING
TO BE PRETTY BUSY ALONG ABOUT THEN, AND I THINK WE ARE GOING
TO CONTINUE WITH WHAT WE HAD PLANNED FOR NORMAL ACTIVITIES.
CAPCOM ROGER. LET ME GO OVER MY UPDATE AGAIN,
NOW. THAT TIME WAS AT 23 PLUS 53 PLUS 00 AND I MIGHT HAVE
SET THAT TIME UP WRONG. LOOKS LIKE AT THAT PARTICULAR TIME
IT COULD POSSIBLY BE WORKED IN.
SC ROGER, IT'S THE RIGHT TIME. NO TV TILL
AFTER RENDEZVOUS.
CAPCOM APOLLO 7 HOUSTON. I HAVE THE RCS PRO-
PELLANT USABLE IN TERMS OF PERCENTAGE. DO YOU WANT ME TO
READ THEM OR NOT?
SC ROGER, GO AHEAD.
CAPCOM ROGER. RCS USABLE REMAINING QUAD A-
ALPHA 86.7 PERCENT, B-BRAVO 91 PERCENT, C-CHARLIE 85 PERCENT,
D-DELTA 90 PERCENT.
SC ROGER. UNDERSTAND, USABLE REMAINING
86, 91, 85 AND 90,
CAPCOM ROGER
CAPCOM APOLLO 7, HOUSTON. I HAVE PIPPA-5
UPDATE.
SC ROGER, STANDBY.
SC GO AHEAD, BILL.
CAPCOM ROGER, FOR THE VERB 21 NOUN 1 NINER
1720 NINER, THE PIPPA-5 IS 0 NINER.
SC ROGER, UNDERSTAND 0 NINER.
CAPCOM RIGHT.
CAPCOM APOLLO 7, HOUSTON, 1 MINUTES LOS CYI,
TAN AT 22 PLUS 59.
SC ROGER.
JAMES THIS IS APOLLO CONTROL 22 HOURS 45 MINUTES
INTO THE MISSION OF APOLLO 7. THAT CONCLUDES OUR PASS. THE
NEXT CONTACT WILL BE TANANARIVE 22 HOURS 59 MINUTES 39 SECONDS
SOME 14 MINUTES FROM NOW. WE HAVE A GO FOR 33 REVOLUTIONS.
THINGS LOOK GOOD ON THE SPACECRAFT RIGHT NOW. THIS IS
APOLLO CONTROL.

END OF TAPE

PAO THIS IS APOLLO CONTROL 22 HOURS 59 MINUTES IN THE MISSION OF APOLLO 7. AT THIS TIME I BELIEVE WE WILL GIVE A RUNDOWN OF THE ACTIVITIES SINCE ROUGHLY 8 HOURS AGO. AT 15 HOURS 23 MINUTES, ASTRONAUT SCHIRRA REQUESTED PERMISSION TO TAKE ONE DECONGESTANT TABLET. HE HAD TAKEN TWO ASPIRIN EARLIER. THE PROBLEM SEEMED TO BE THAT HIS NOSE WAS STOPPED UP AND HE HAD GONE, AS HE HAD SAID, THROUGH SEVERAL KLEENEXES, AND AT THAT TIME HE WAS TOLD TO TAKE A DECONGESTANT TABLET. WE THEN HAD AN UNSCHEDULED, UP TO THAT - SHORTLY BEFORE THAT TIME, AN RCS SERVICE MODULE BURN. THEN THE COMMANDER AND THE LM PILOT ENTERED A SLEEP PERIOD AT 15 HOURS 52 MINUTES INTO THE MISSION. THE REASON FOR THE RCS BURN WAS TO POSITION THE COMMAND AND SERVICE MODULE SOME 26 HOURS INTO THE MISSION, OR 3 HOURS FROM NOW, ROUGHLY, WELL AHEAD OF THE S-IVB STAGE OF THE BOOSTER, WHICH IT WILL RENDEZVOUS WITH AT THAT PERIOD IN THE FLIGHT. WE WILL TURN OUT TO BE, AFTER THAT BURN, 83 TO 98 NAUTICAL MILES AHEAD OF THE S-IVB AT THE TIME OF THE FIRST SERVICE PROPULSION SYSTEM BURN, SO IT WAS A HIGHLY SUCCESSFUL BURN. THEN WE HAD A SITUATION WHERE EXCESS WATER FROM THE ENVIRONMENTAL CONTROL SYSTEM, PRIMARY SYSTEM WASTE TANK WAS LOOKED AT CLOSELY AND IT TURNED OUT THAT IT HAD TO BE DUMPED. SEVERAL MINUTES AGO IT WAS ACCOMPLISHED AND IT WENT FROM 85 PERCENT DOWN TO SOME 45 - 47 PERCENT, WHICH IS A MOST ACCEPTABLE LEVEL IN THE WASTE TANK. WE HAVE HAD SOME PROBLEM WITH THE BIOMEDICAL HARNESS, WHICH DIDN'T SEEM TO OPERATE AND 18 HOURS 58 MINUTES INTO THE MISSION, IT CAME UP AND IT WAS INDICATED BY THE COMMAND MODULE PILOT EISELE THAT HE HAD CHECKED THE HARNESS BUT STILL ON THE GROUND NO SIGNAL WAS COMING INTO THE CONTROL CENTER ON BIOMEDICAL READOUT. SO THE DOCTOR, DR. BEERS HERE IN THE CONTROL CENTER, INDICATED THAT THE EQUIPMENT WAS WORKING OKAY AND HE HAD TO ASSUME THAT THE TROUBLE WAS SOMEWHERE IN THE SPACECRAFT. AT THAT TIME, THE WATER TANK QUANTITY WAS BUILDING UP AND HAD REACHED 78 PERCENT AND IT STAYED RIGHT AROUND THAT QUANTITY UNTIL, AS I SAY, A SHORT WHILE AGO IT WAS DUMPED. IT TOOK SOME 28 MINUTES TO DUMP IT DOWN TO AROUND 47 PERCENT. WE HAD FLIGHT PLAN UPDATE 19 HOURS 17 MINUTES INTO THE MISSION. WE THEN HAD IT CONFIRMED THAT THE TELEVISION WAS SCHEDULED FOR THE TEXAS PASS AT SOME 23 HOURS 53 MINUTES INTO THE MISSION. AT THAT TIME, EISELE REPORTED RECEIVING SPURIOUS SIGNALS - IT WAS A RADIO PROGRAM. AS HE SAID A HOT TIP ON HOSPITAL INSURANCE PLANS FROM SOMEBODY. EISELE REPORTED 20 HOURS 8 MINUTES INTO THE MISSION THAT THE TELESCOPE WHEN HE WAS IN DARKNESS WITH THE SUN BEHIND HE COULD SEE THE STARS FINE, BUT WHEN THE OBJECT WAS MOVED SNOWY WHITE PARTICLES APPEARED AS HE

PAO SAID LIKE A SNOW STORM. HE ALSO NOTICED SOME SUN SHINING DOWN THE BARREL OF THEIR TELESCOPE AT CERTAIN TIMES. HE DID NOT KNOW THE EXACT POSITION OF THE SUN WHEN THAT HAPPENED. WE'RE IN A SITUATION 20 HOURS 29 MINUTES INTO FLIGHT WHEN THE FLIGHT DIRECTOR GRIFFIN CAME TO THE CONCLUSION THAT THE ACCELEROMETER IN THE INERTIAL MEASURING UNIT THAT ON THE Y-AXIS POSSIBLY WAS NOT FUNCTIONING PROPERLY AND THAT THE COUNTS POSSIBLY WERE NOT GETTING INTO THE COMMAND MODULE COMPUTER. HE THEN DETERMINED THAT WE SHOULD HAVE AN OUT-OF-PLANE BURN, AN RCS REACTION CONTROL SYSTEM ON THE SERVICE MODULE BURN IN THE Y-AXIS THAT'S LATERALLY OF - AND THAT THE BURN WOULD BE 7 SECONDS PLUS Y AND 7 SECONDS MINUS Y WITH A 30 SECOND SPACE IN BETWEEN. WOULD BE A TOTAL OF ABOUT, AS IT TURNED OUT, A 5-FOOT PER SECOND BURN. THAT WAS PASSED TO THE CREW AND THAT BURN DID TAKE PLACE AND IT DID PROVE THAT THE ACCELEROMETER IN THE INERTIAL MEASURING UNIT WAS NOT MALFUNCTIONING AND WAS CHECKED OUT HERE ON THE GROUND AS WORKING PROPERLY. IT WAS THEN CONCLUDED AND CONFIRMED THAT THE WASTE WATER TANK DUMP WAS COMPLETED, CONFIRMED ON THE GROUND - THE EXACT QUANTITY REMAINING AS OF NOW IS, OR A SHORT WHILE AGO, 47.2 PERCENT QUANTITY IN THE WASTE WATER TANK IN THE ENVIRONMENTAL CONTROL SYSTEM. WE THEN GOT A GO A VERY SHORT WHILE AGO 22 HOURS 30 MINUTES INTO THE MISSION, A GO FOR 33 REVOLUTIONS. WE THEN HAD SERVICE MODULE REACTION CONTROL SYSTEM READOUT ON QUANTITIES. QUAD A WE HAVE 86.7 PERCENT LEFT; QUAD B WE HAVE 91 PERCENT OF THE PROPELLANT LEFT; QUAD C 85 PERCENT LEFT; AND QUAD D 90 PERCENT LEFT. THAT'S THE STATUS AS OF NOW AT 23 HOURS 5 MINUTES INTO THE MISSION OF APOLLO 7. THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 11/12/68 GET: 22:29:25 102/3

CAPCOM APOLLO 7, HOUSTON CAPCOM. APOLLO 7,
HOUSTON CAPCOM. APOLLO 7 HOUSTON.
SC HOUSTON, APOLLO 7. ARE YOU READING
ME?
CAPCOM I READ YOU FIVE BY HOW ME?
SC ROGER. READING YOU FINE. OVER.
CAPCOM OKAY, WALL I'VE GOT A T ALIGN TIME FOR
YOU I'D LIKE TO PASS UP. WE'VE GOT A SHORT PASS HERE.
SC ROGER.
CAPCOM ROGER. T ALIGN 23 PLUS 24 PLUS 08 00.
SC 23 PLUS 24 PLUS 08 00. ROGER. OVER.
CAPCOM ROGER. THAT'S CORRECT. NOW CONCERNING THE
MATTER OF THE TELEVISION, THERE'S BEEN CONSIDERABLE DISCUSSION
HERE IN THE CENTER. THE FLIGHT DIRECTOR - WANT'S YOU TO
TURN ON THE TELEVISION AT THE APPROPRIATE TIME.
SC WALT WILL BE ON THE AIR SHORTLY.
CAPCOM OKAY, WALL AFTER THIS I'VE GOT NCC ONE
PAD I'D LIKE TO GIVE YOU AND IF I CAN'T GIVE HERE I WILL
GIVE IT OVER CARNARVON .
SC ROGER. GO WITH IT.
SC GO WITH YOUR MANEUVER PAD.
CAPCOM LET'S WAIT FIRST AND GET WALLY'S COMMENTS
ON THE TELEVISION.
CAPCOM OKAY WALT, WE'LL GO AHEAD WITH THE NCC
PAD HERE.
SC READY TO COPY.
CAPCOM OKAY, 026 24 5510 PLUS 00617 MINUS
00010 PLUS 01985 1960 PLUS 1243 01978 32398 MINUS 0 NINER 0
MINUS 030 010 35 1981 151 025 41 - WE'VE LOST HIM. 5500

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 23:33:00 103/1

JAMES THIS IS APOLLO CONTROL HOUSTON 23 HOURS 33 MINUTES INTO THE FLIGHT OF APOLLO 7 WITH THE SPACECRAFT JUST PULLING NORTHEAST OF AUSTRALIA. DURING THE AUSTRALIAN PASS, IT WAS CONCLUDED THAT THERE WOULD BE NO TELEVISION TRANSMISSION, I REPEAT NO TELEVISION TRANSMISSION ACROSS THE STATES IN THE NEXT REV. A NUMBER OF REASONS ARE CITED IN THE COMMUNICATION FROM CAPTAIN SCHIRRA AND HERE IS THE TAPE OF THE ENTIRE AUSTRALIAN PASS NOW.

CAPCOM APOLLO 7, HOUSTON. ROGER, WALLY, I WOULD LIKE TO FINISH THE NCC 1 PAD AND COULD YOU TELL ME HOW FAR YOU COPIED BEFORE WE GOT LOS AT TANANARIVE?

SC ROGER, JACK. I GOT 25 HOURS 41 MINUTES OF THE NAV CHECK, I DIDN'T GET THE SECONDS. CONTINUE AFTER THAT.

CAPCOM OKAY. STARTING AT THE SECONDS. 5500 + 2766 - 05376, 1126359284359. YOU HAVE THE T ALIGN OF 23 + 24 + 0800.

SC ROGER. THE T ALIGN WAS 23 + 24 + 0800, NCC 1 26245510 + 00617 - 00010 + 019851960 + 12430197832398 - 090 - 030010351981151025415500 - 2766 - 053761226359284359 OVER.

CAPCOM ROGER, IT IS CORRECT EXCEPT THE - IN NOUN 43 THE LATITUDE, THE SIGN SHOULD BE + 2766.

SC ROGER, I HAVE THE PLOTS HERE.

CAPCOM OKAY, YOU GOT IT. GO AHEAD WALLY.

SC ROGER. YOU HAVE ADDED TWO BURNS TO THIS FLIGHT SCHEDULE, YOU HAVE ADDED A URINE WATER DUMP, AND WE HAVE NEW VEHICLE UP HERE AND I TELL YOU THIS FLIGHT TV WILL BE DELAYED WITHOUT FURTHER DISCUSSION UNTIL AFTER THE RENDEZVOUS.

CAPCOM ROGER, COPY.

SC ROGER.

CAPCOM APOLLO 7, THIS IS CAPCOM NUMBER 1.

SC ROGER.

CAPCOM ALL WE HAVE AGREED TO DO ON THIS IS FLIP IT. APOLLO 7, ALL WE HAVE AGREED TO ON THIS PARTICULAR PASS IS TO FLIP FLIP THE SWITCH ON. NO OTHER ACTIVITY ASSOCIATED WITH TV, I THINK WE ARE STILL OBLIGATED TO DO THAT.

SC WE DO NOT HAVE THE EQUIPMENT OUT, WE HAVE NOT HAD AN OPPORTUNITY TO FOLLOW SETTING, WE HAVE NOT EATEN AT THIS POINT, I STILL HAVE A COLD, I REFUSE TO FOUL UP OUR TIME LINES THIS WAY.

, COM APOLLO 7, HOUSTON. COULD WE HAVE OPPOSITE OMNI PLEASE AND YOUR PMP POWER TO OX.

SC PMP GOING TO OX NOW. HEY JACK, THEY LEFT US WITHOUT THAT TAPE RECORDER RUNNING AGAIN IN - AFTER THE LAST PASS. THE PROBLEM WE HAVE HERE IS I AM

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 23:33:00 103/2

SC HESITANT TO STOP AND COMMAND RESET AND START TAPE GOING BECAUSE YOU MIGHT BE IN THE MIDDLE OF A DUMP THAT YOU WANT TO CONTINUE LATER. SO WE REALLY ARE LEFT WITHOUT NOTHING BETWEEN PASSES AT THE - TAPE MOTIONS LEFT BARBER POLE LIKE THAT.

CAPCOM OKAY, WE COPY.

CAPCOM 7, HOUSTON.

SC GO AHEAD.

CAPCOM WALTER, THE REASON THE - YOU LOST THE TAPE RECORDER AT BARBER POLE WHEN YOU LEFT CANARIES WE HAD A POWER LOSS AT CANARIES JUST BEFORE LOS AND WE DIDN'T GET THE COMMAND TO YOU. IT SHOULDN'T HAPPEN AGAIN, EVERYBODY HAS BEEN BRIEFED ON THE PROPER OPERATION THERE.

SC OKAY JACK, I UNDERSTAND. I GUESS, I AM GOING TO ASSUME IF IT'S BARBAR POLED AFTER WE HAVE LEFT CONTACT WITH YOU, THEN IT'S RUNNING IN A FORWARD DIRECTION AND READY TO RECORD. JACK, CAN YOU VERIFY THAT?

CAPCOM STAND BY. LET ME GET THE WORD FROM EECOM.

CAPCOM OKAY, WALT, EECOM SAYS THAT ASSUMPTION OF YOURS IS CORRECT.

SC THANK YOU, AND FOR YOUR INFORMATION DOWN THERE, I HAVE YET TO ACTIVATE THE SPS LINE HEATERS. THEY HAVE BEEN OFF EVER SINCE LIFTOFF. THE TEMPERATURE SEEMS TO BE HOLDING VERY, VERY CONSTANT AT 70 AND I VERIFIED THAT WITH THE OXIDIZER FEEDLINE TEMPERATURE OFF.

CAPCOM OKAY, REAL FINE.

SC AND DID YOU EVER GET THE COMMAND MODULE RCS TEMPERATURES DOWN THERE DURING THE NIGHT?

CAPCOM YES WE DID. DO YOU WANT THEM PASSED UP?

SC NEGATIVE. WE ARE GOING TO BE DOING SOME FROM TIME TO TIME. I WILL PASS THEM ON TO YOU.

CAPCOM OKAY.

CAPCOM APOLLO 7, HOUSTON. WE WOULD LIKE TO HAVE YOUR TLM SWITCH PUSHED TO LOW.

CAPCOM APOLLO 7, HOUSTON.

CAPCOM APOLLO 7, HOUSTON.

PAO THIS IS APOLLO CONTROL. AGAIN REPEAT, THERE WILL BE NO TELEVISION ATTEMPT, USE OF THE TELEVISION EQUIPMENT MADE BEFORE THE RENDEZVOUS ATTEMPT COMING LATER IN THE DAY. AND THE REVOLUTIONS ARE SUCH THAT WE WOULD NOT THEN BE ABLE TO ATTEMPT IT UNTIL AT LEAST TOMORROW AND PERHAPS THE NEXT DAY. WE ARE UNDECIDED RIGHT NOW WHETHER TO ATTEMPT A TELEVISION PASS TOMORROW OR NOT. IN THE COURSE OF THE CONVERSATION REGARDING THE USE OF THE CAMERA, YOU HEARD SOMEONE IDENTIFYING HIMSELF AS CAPCOM NUMBER 1, COME IN AND

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 23:33:00 103/3

PAO TAKE THE MICROPHONE. THAT WAS DONALD SLAYTON. HE, ON THE BASIS ON HIS DISCUSSION WITH WALLY SCHIRRA - HERE IN THE CONTROL CENTER IT WAS CONCLUDED THAT WE SHOULD NOT ATTEMPT THE TV PASS TODAY. PRIOR TO THAT THERE HAD BEEN SOME FEELING THAT WE SHOULD GO AHEAD AND FOLLOW THE GENERAL TIME LINE AS CLOSELY AS POSSIBLE. THIS IS A MATTER IN WHICH THE CONTROL CENTER DECIDED THEY SHOULD ACCEPT THE CREW COMMANDERS JUDGEMENT AND THAT WAS THAT IT WOULD OVERLOAD THEM TO ATTEMPT BEFORE THE RENDEZVOUS. THE PRINCIPAL OF ADDITIONAL WORK, IT MAY SOUND SIMPLE JUST TO TURN ON THE TV CAMERA, BUT IT DOES MEAN A GOOD DEAL OF EFFORT IN SETTING LIGHT CONDITIONS AND SETTING SHADES, PULLING SHADES ON FIVE DIFFERENT WINDOWS AND CONTROLLING THE GENERAL LEVEL. I THINK THAT IS THE BIGGEST ORDER OF DIFFICULTY. AT 23 HOURS 42 MINUTES INTO THE FLIGHT, THIS IS APOLLO CONTROL HOUSTON.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 23:51:00 104/1

PAO THIS IS APOLLO CONTROL HOUSTON, 23 HOURS 51 MINUTES INTO THE FLIGHT. THE GUAYMAS STATION IS DUE TO WE ARE DUE TO ACQUIRE THE SPACECRAFT THROUGH GUAYMAS MOMENTARILY AND THIS PASS WILL BRING THE SPACECRAFT ACROSS MEXICO, ACROSS THE NORTHERN GULF OF MEXICO AND CUT ACROSS FLORIDA, SHOULD BE AN ACTIVE PASS. . . . LET'S LISTEN.

COMM WE HAVE SOME INFORMATION ON YOUR EVAPORATOR AND ECS PROCEDURES FOR AND DURING THE RENDEZVOUS HERE. WE WOULD LIKE FOR YOU TO STAY IN YOUR PRESENT CONFIGURATION USING THE PRIMARY SYSTEM WITH THE RADIATORS. IF THE EVAPORATOR, PRIMARY EVAPORATOR, OR EVAP TEMPERATURE GOES HIGHER THAN 60 DEGREES, WE WOULD LIKE FOR YOU TO ACTIVATE THE PRIMARY EVAPORATOR THEN. AND IF IT DOESN'T WORK, WE WOULD LIKE FOR YOU TO RE-SERVICE THAT PRIMARY EVAPORATOR AND SHUT IT DOWN, ACTIVATE THE SECONDARY COOLANT LOOP WITH THE RADIATOR BYPASS.

SC ROGER, UNDERSTAND. ADDITIONAL PR. ONE QUESTION, DID YOU SAY GLYCOL EVAPORATOR OUTLET TEMPERATURE ABOVE 60 OR THE RADIATOR OUTLET TEMPERATURE ABOVE 60.. OVER.

COMM WALT, THE EVAPORATOR OUTLET TEMPERATURE GREATER THAN 60.

SC ROGER, UNDERSTAND, EVAPORATOR OUTLET ABOVE 60 AND ACTIVATE THE PRIMARY WATER BOILER IF IT DOESN'T WORK AGAIN, I WILL RE-SERVICE IT, SHUT IT DOWN AND ACTIVATE SECONDARY COOL LOOP WITH THE RADIATOR BYPASS.

COMM ROGER.

SC HOUSTON - APOLLO 7, I HAVE THE PMP BACK TO NORMAL AFTER THAT LAST PASS.

COMM ROGER, COPY.

. IS 56 MINUTES

(GARBLED)

(GARBLED) 7 MINUTES

APOLLO 7 - HOUSTON

SC ROGER, SOUNDS LIKE YOU'RE HAVING A BALL DOWN THERE.

COMM ROG. WE JUST WANT YOU TO KNOW YOUR (GARBLE) LINE FOR YOUR REST MATS COMPARES FAVORABLY WITH OURS DOWN HERE.

SC THANK YOU. . . WE'RE JUST GOING BY OVERHEAD JUST SKIMMING THE GULF COAST RIGHT OVER THE WATER.

COMM HOW DOES THE WEATHER LOOK?

SC NOT BAD, ABOUT (GARBLED) JUST ACROSS TALLAHASSEE AT THIS POINT. (GARBLED)

COMM ROGER

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 23:51:00 104/2

SC	JUST TOOK A PICTURE OF (GARBLED) WAVE
THAT'S BEEN THE FIFTH	
COMM	DID YOU REQUEST CRESTVIEW DIRECT TO
ORLANDO?	
SC	DIRECT (GARBLED)
END OF TAPE	

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 24:01:00

105/1

SC IT'S ALSO OVER DAYTONA. IT WILL BE
JUST OVERCAST I GUESS. THERE'S ABOUT 3/10 COVERAGE,
(GARBLED)IT'S A GOOD DAY FOR IT.

CAPCOM NOTHING RIGHT NOW. WE'LL HAVE YOU
ALMOST CONTINUOUS COVERAGE HERE THROUGH CYI FOR ANOTHER
15 MINUTES OR SO.

SC ROGER. (GARBLED) STAY IN HERE AND GET
THIS LITTLE FOOD DOWN.

CAPCOM OKAY, WE'LL STANDBY.

CAPCOM APOLLO 7, HOUSTON, OPPOSITE OMNI.

SC 24 HOURS (GARBLED) MINUTES INTO THE
FLIGHT 5 CLICKS ON THE WATER GUN FOR THE LMP.

CAPCOM ROGER. COPY.

SC (GARBLED)

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 241100 106/1

CAPCOM APOLLO 7, HOUSTON (GARBLE).
CAPCOM APOLLO 7, HOUSTON. ONE MINUTE LOS
CANARY. WILL PICK YOU UP AT TANANARIVE IN ABOUT 15 MINUTES.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, L0/12/68, GET: 24:38:30 L07/1

HANEY THIS IS APOLLO CONTROL HOUSTON 24 HOURS
38 MINUTES INTO THE FLIGHT. WE'VE BEEN IN TOUCH WITH THE
CREW BY TANANARIVE. WE ARE NOW, AND HERE'S HOW THAT CON-
VERSATION IS GOING.

CAPCOM APOLLO 7 HOUSTON TO TANANARIVE.

SC APOLLO LOUD AND CLEAR.

CAPCOM YOU'RE FIVE BY ALSO. WE'LL HAVE CON-
TINUOUS COVERAGE HERE TO CARNARVON. ARIA 2 COMES UP WHEN
WE LOSE TANANARIVE IN ABOUT 8 MINUTES.

SC (GARBLED)

CAPCOM WALLY, I DIDN'T QUITE GET IT. ARE YOU
SAYING THAT THE DUMPS ARE AFFECTING THE SYSTEM OPERATION
OR IS THAT -

SC WE SECTIONED OFF THE PARTICLES THAT
CAME OFF THE REAR DECK OR WATER DUMP.

CAPCOM ROGER, COPIED.

SC (GARBLE) THIS WOULD BE A PROBLEM WHEN
WE DON'T HAVE THE WAYS TO DROP OUT THE SOOT.

CAPCOM OKAY, COPY.

SC I WOULD LIKE TO GET THE REST OF THE
FLIGHT PLAN FOR (GARBLE). THE RECOMMENDATION DOES NOT
(GARBLE)

CAPCOM OKAY, COPY THAT.

SC THIS IS APOLLO 7.

CAPCOM GO AHEAD.

SC WE HAVE A (GARBLE)

CAPCOM OKAY, GO AHEAD.

SC TO PLACE THE X-AXIS OF THE SPACECRAFT
ON TARGET, THE TARGET MUST BE IN THE UPPER RIGHT QUADRANT,
THE (GARBLE) HAS GOT IT, UP 1 DEGREE AND RIGHT 1 DEGREE.

CAPCOM ROGER, COPY.

SC THIS IS APOLLO 7. I HAVE THE RESULTS
OF THE COMMAND MODULE RCS (GARBLE)

CAPCOM SAY AGAIN, 7.

SC I HAVE THE RESULTS FROM THE COMMAND
MODULE RCS TEMPERATURE CHECK, I'VE JUST COMPLETED. YOU
MAY COPY.

CAPCOM GO AHEAD.

SC ROGER. 5C AND D AND 6B, C, AND D ARE
ALL POWER VOLTS. 6A IS AT 4.90.

CAPCOM ROGER, COPY.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 24:58:00 108/1

PAO THIS IS APOLLO CONTROL HOUSTON, 24 HOURS
58 MINUTES INTO THE FLIGHT. WE ARE OVER AUSTRALIA AND THE
PASS IS PROGRESSING IN THIS WAY.
COMM (GARBLED)
PAO HOUSTON, THROUGH CARNARVON STANDING BY.
COM WALT, WE PICKED UP HONEYSUCKLE, IN ABOUT
5 MINUTES YOU MIGHT WANT TO TURN UP YOUR S-BAND AT THAT TIME.
SC ROGER.PRESSURE READING OF 200 MIL
OF MERCURY
COMM SAY AGAIN.
SC 0 2 POINTS OF PRESSURE, 200 MIL OF MERCURY
COMM OKAY, COPY THAT.
SC(GARBLED) S-BAND ON THIS PASS?
COMM WE PICK UP HONEYSUCKLE IN AT 55 HERE,
YOU CAN TURN UP S-BAND VOLUME IF YOU WANT.
SC ROGER, BY THE WAY HOW DOES S-BAND SOUND
TO YOU DOWN THERE TODAY?
COMM EVERYTHING SOUNDS REAL GOOD. IT IS A
REAL NICE COMM.
SC WE WERE SURPRISED YOU FELLOWS STARTED
TALKING OVER TANANARIVE THIS MORNING
COMM ROGER
SC (GARBLE) BAD YESTERDAY
COMM APOLLO 7 HOUSTON, WE..COULD WE SWITCH
YOUR BIO MED SWITCH TO THE COMMANDER?
SC YES SIR, MY PULSE IS DOWN NOW.
COMM OKAY.
SC HOUSTON - APOLLO 7
COMM GO AHEAD
SC DID YOU CONSOLIDATE THE BC....0197.8, IS
THAT CORRECT.
COMM STANDBY. APOLLO 7 - HOUSTON. THAT IS
THE CORRECT NUMBER AT THIS TIME, WE EXPECT ANOTHER UPDATE
THOUGH AS WE PROGRESS.
SC ROGER
SC HOUSTON - APOLLO 7
COMM GO AHEAD
SC ROGER, JUST BEFORE BAND CHECK, WE'RE GO
COMM ROGER, COPY.
SC COULD YOU GIVE US AN UPDATE ON OUR
GARBLED)
COMM ROGER, YOU WANT A CHART UPDATE, IS THAT
SC THAT'S RIGHT
COMM OKAY, STANDBY

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 24:58:00 108/2

COMM APOLLO 7 - HOUSTON, I HAVE THE ORBITAL
MAP UPDATE.
SC GO AHEAD
COMM ROG. FOR REV 16, THE GET ON THE NOSE
WILL BE 25 + 12 + 45, LONGITUDE WILL BE 168.5 WEST, A RIGHT
ASCENSION 06 + 27.
SC ROG. OUR ASCENSION 06 AND 27 AND THE
CROSSING ON THE MAP AS 25 + 12 + 45, 168.5 WEST.
COMM ROGER
SC AS TO THE COLD I HAVE, I TOOK 2 ASPIRIN
BEFORE SLEEP LAST NIGHT AND I ACTIVATED THAT IS A TOTAL DOSE
SO FAR. I THINK I'LL TAKE ANOTHER ACTIVATED DURING THIS PERIOD.
COMM DR. BERRY SAYS YES, TAKE ANOTHER ONE
DURING THIS PERIOD.
SC ROGER. WE ARE CURRENTLY DOING THE
OXYGEN PART OF P528.
COMM (GARBLED)
PAO THIS IS APOLLO CONTROL HOUSTON..25 HOURS
2 MINUTES INTO THE FLIGHT. THE SPACECRAFT IS NOW PROCEEDING
NORTHEAST OF AUSTRALIA AND WE WILL NOT EXPECT ANOTHER CON-
TACT UNTIL PERHAPS HAWAII, THE PASS SHADES IN RIGHT ON THE
LINE JUST BELOW THE LINE OF ACQUISITION, LOOKS MORE LIKE A
SOLID ACQUISITION AT THE HUNTSVILLE. THE HUNTSVILLE IS DUE
TO ACQUIRE AT 19 MINUTES 25 HOURS 19 MINUTES INTO THE FLIGHT
ABOUT 16 MINUTES FROM NOW. A WORD ON THE VISITORS IN THE
CONTROL CENTER THIS AFTERNOON, THIS MORNING, MRS. LOW
CUNNINGHAM, THE WIFE OF LUNAR MODULE PILOT WALT CUNNINGHAM
WAS HERE, ARRIVED ABOUT 9:30 WITH THEIR TWO CHILDREN, BRYAN
AND KIMBERLY AND THEY STAYED IN THE CONTROL CENTER FOR ABOUT
AN HOUR ALONG WITH A HOUSE GUEST OF THE CUNNINGHAMS, A MRS.
LYNDA JOHNSON. THEY LEFT HERE ABOUT 10:30. WE DISCUSSED
SCHIRRAS ADMITTED COLD WITH DR. BERRY AND ALL HANDS AGREE
THAT WALLY SOUNDS A LITTLE STUFFED UP, A LITTLE HUSKY AND
YOU HEARD HIM ASK FOR AND IT WAS SUGGESTED THAT HE TAKE
ANOTHER ACTIVATED WHICH IS A DECONGESTANT TABLET. THIS IS THE
SECOND ACTIVATED, HE TOOK TWO ASPIRIN BEFORE HE WENT TO SLEEP
LAST NIGHT. AT 25 HOURS 4 MINUTES INTO THE FLIGHT, THIS IS
APOLLO CONTROL HOUSTON.

END OF TAPE

PAO THIS IS APOLLO CONTROL HOUSTON, 25 HOURS, 23 MINUTES INTO THE FLIGHT. WE'VE BEEN IN TOUCH WITH THE CREW BY HAWAII, THEY'RE NOW IN THE HUNTSVILLE, THE SHIP HUNTSVILLE ZONE OF ACQUISITION AND HERE IS HOW THEIR CONVERSATION IS GOING.

CAPCOM LAST P52 CAME OUT.

SC ROGER, THE P52 CAME OUT FINE, BUT THE (GARBLE) STARTED THE DIFFERENCE AND (GARBLE). NO PROBLEM WITH THE OPTICS, THERE WILL BE (GARBLE) AND ALL CAME OUT FINE.

CAPCOM OKAY, THAT'S REAL GOOD NEWS. WE'LL EXPECT YOU TO BE IN (GARBLE) SOMETIME AROUND 2533 FOR THESE COMMAND UPLOADS HERE.

SC FINE.

CAPCOM OKAY, ONE OTHER MESSAGE HERE THIS MORNING. THE FLIGHT OF APOLLO 7 DOMINATES THE NEWS THIS MORNING. WE RECEIVED A NUMBER OF SPECIAL MESSAGES REGARDING THE FLIGHT, INCLUDING ONE FROM PRESIDENT JOHNSON, WHO WATCHED THE LAUNCH ON TELEVISION AT THE WHITE HOUSE. HERE IS HIS MESSAGE TO YOU. "CONGRATULATIONS ON THE SPLENDID BEGINNING OF THE APOLLO 7 FLIGHT. THE NATION IS PROUD OF YOU AND THE MANY IN NASA, THE SERVICES, AND THE PRIVATE COMPANIES WHICH HAVE COMBINED TO MAKE SUCH A SUCCESSFUL MAN SPACE FLIGHT. EVERYTHING IN THE PRESIDENT'S OFFICE CAME TO A HALT AS I AND THE FOREIGN MINISTER DEBRET OF FRANCE WATCHED WITH MOUNTING EXCITEMENT THE MAGNIFICENT LAUNCH OF THE SATURN 1B. YOU CAN WELL IMAGINE THE GREAT PLEASURE WHICH FILLED THE ROOM AS WORD CAME OF YOUR SUCCESSFUL INSERTION INTO ORBIT. THE PATH TO THE MOON TAKES COURAGE, ABILITY, AND DEVOTION TO OUR GOAL. YOU ARE MAKING A MAJOR STRIDE IN THIS STAR-STUDDED WAY." ALSO, WE RECEIVED ANOTHER MESSAGE FROM VICE-PRESIDENT HUMPHREY, THE HEAD OF THE SPACE COUNCIL, WHICH SAYS THAT THE NATION IS PROUD OF APOLLO 7. ALSO, THE OLYMPIC GAMES START TODAY IN MEXICO CITY AND WE'LL KEEP YOU POSTED ON THE RESULT.

SC ROGER, THANK YOU. I JUST FINISHED THE CRYO FUEL G TEST FOR THE OXYGEN TANKS AT THE 90 PERCENT LEVEL AND IT LOOKED LIKE THERE WAS VERY NOTICEABLE STRATIFICATION AT 910 PSI, WHEN I TURNED THE HEATERS OFF AND THE (GARBLE) ON, THE SURFACE DROPPED THE LEFT TANK DOWN TO 860 AND THE RIGHT TANK DOWN TO 850. ALL UNIT FANS ARE BACK ON AUTO NOW.

CAPCOM OKAY, ROGER, WE COPY.

SC JACK, WE LOOK VERY GOOD UP HERE AND (GARBLE).

CAPCOM APOLLO 7, HOUSTON.

SC GO AHEAD.

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 252300 109/2

CAPCOM NOW THAT YOU'RE DOWN, WE WOULD LIKE YOU TO KEY IN ENTER, SO WE CAN LOOK AND SEE IF THERE WERE ANY ADDITIONAL PROGRAM ALARMS.

SC OKAY JACK, I DID AND NOTHING CAME UP.

CAPCOM OKAY, FINE.

CAPCOM APOLLO 7, HOUSTON.

SC GO AHEAD HOUSTON.

CAPCOM IF YOU WILL HIT THE RESET BUTTON, WE CAN GET RID OF THAT PROGRAM ALARM 1105. APOLLO 7, HOUSTON.

SC GO AHEAD, JACK.

CAPCOM IF YOU WILL GO TO ACCEPT WE WILL SEND YOU UP THOSE THREE UPDATES.

SC ROGER, YOU GOT IT.

CAPCOM OKAY.

PAO THIS IS APOLLO CONTROL HOUSTON. IN THIS LAPSE, YOU WILL RECALL IN THE MORNING NEWS FLYER THE CAP COM REFERENCES AND THE MESSAGE FROM VICE-PRESIDENT HUMPHREY. IN THE FULL TEXT OF THAT MESSAGE IS AS FOLLOWS: "HEARTY CONGRATULATIONS AND ALL GOOD WISHES FOR THIS HISTORIC APOLLO 7 MISSION. THE NATION IS PROUD." END OF STATEMENT. NOW WE WILL GO BACK TO THE PASS.

CAPCOM ROGER, MCC1 026 24 5520 PLUS 00635 MINUS 00013 PLUS 01 NINER 63 1961 PLUS 1252 01 NINER 62 32339 MINUS 0 NINER 0 MINUS 030 010 35 1 NINER, NINER 2 162 025 42 ALL BALLS PLUS 2756 MINUS 05340 1225 358 285 359. REMARKS POSIGRADE, PITCH DOWN 70 DEGREES, HEADS UP.

SC ROGER, I READ THAT FINE. MCC1 026 24 5520 PLUS 00635 MINUS 00013 PLUS 01 NINER 63 1961 PLUS 1252 0 ...

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 25:33:00 110/1

SC 9681961 PLUS 1252 01962 32339 MINUS 090
MINUS 030 410 351992 162 025 42 0000 PLUS 2756 MINUS 05340
1225 358 35359. IT'S A POSIGRADE PITCH DOWN 70 DEGREES
AIR SEP.

CAPCOM ROGER, THAT'S CORRECT. THANK YOU.

SC THIS IS APOLLO 7.

CAPCOM GO AHEAD.

CAPCOM APOLLO 7 HOUSTON, GO.

SC YES, WERE YOU TRYING TO SEND US SOME

PIANO MUSIC THEN?

CAPCOM YES, WE WERE TRYING TO SEND YOU A
NAV UPDATE FOR THE CSM TARGET. AND 7, YOUR SEXTANT STAR
CHECK WILL NOT BE VISIBLE AFTER 26 PLUS 18 PLUS 00.

SC (GARBLED) 26 PLUS 18. SAY, CAN YOU
WORK UP WORDS TO THE CHORUS?

CAPCOM ROGER, STANDBY.

CAPCOM APOLLO 7, THERE WERE NO CO-AFT STAR
AVAILABLE AT THAT ATTITUDE.

SC ROGER.

CAPCOM APOLLO 7, HOUSTON. OUR NAB LOADS ARE
IN AND VERIFIED, THE COMPUTER IS YOURS.

SC ROGER, WE'VE GOT IT. THANK YOU.

SC AND JACK, WE'LL BE STANDING BY FOR
WHEN WE GO AHEAD AND RESTOW THE CABIN GAP ANALYZERS AND
HAVE IT OUT OF OUR WAY.

CAPCOM ROGER.

CAPCOM APOLLO 7, HOUSTON, YOU CAN GO AHEAD
AND STOW THE CABIN GAP ANALYZERS.

SC ROGER, THANK YOU. I'LL GIVE YOU ONE
FINAL READING.

CAPCOM OKAY.

SC DO YOU RECEIVE JACK, 210?

CAPCOM SAY AGAIN.

SC 210 ROMEO DEGREES.

CAPCOM ROGER, COPY.

CAPCOM APOLLO 7, HOUSTON. OPPOSITE OMNI.

CAPCOM APOLLO 7, 1 MINUTE TO LOS.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 26:01:100 111/1

PAO THIS IS APOLLO CONTROL HOUSTON 26 HOURS
1 MINUTE INTO THE FLIGHT. A FEW MINUTES AGO OVER THE CANARY
WE HAD A VERY BRIEF CONVERSATION WHICH WENT LIKE THIS.

CAPCOM APOLLO 7 HOUSTON TO CANARY. STANDING
BY.

SC ROGER, WE'LL TRY TO GIVE THE ALTITUDE
NOW.

CAPCOM ROGER. COULD WE GET YOU TO SWITCH THE
BIOMED SWITCH TO THE LMP?

SC DID YOU SAY TO THE LMP? YOU'VE GOT IT.
CAPCOM ROGER, THANK YOU.

SC WE'RE STILL IN 8 HOURS OF OUR PRIME
TIME.

CAPCOM ROGER.
PAO OVER ASCENSION THE CREW SIMPLY WAS AD-
VISED THAT WE WERE STANDING BY HERE. THERE WAS NO CONVER-
SATION. THEY ARE NOW NEARING TANANARIVE AND SHORTLY WILL
BE COMING UP ON THE FIRST MAJOR USE - THE FIRST USE OF THE
SPS, THE SERVICE PROPULSION SYSTEM, TO MAKE THE FIRST BURN
SETTING UP THEIR RENDEZVOUS. THAT BURN IS PROGRAMED TO
TAKE PLACE BETWEEN TANANARIVE AND CARNARVON. I'M SORRY IT
LOOKS LIKE MOST OF IT WOULD TAKE PLACE OVER THE AUSTRALIAN -
IN THE CARNARVON CIRCLE OF ACQUISITION. WE'LL BE BACK WITH
THE TANANARIVE PASS. THIS IS APOLLO CONTROL HOUSTON.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 26:09:30 112/1

PAO APOLLO CONTROL 26 HOURS 9 MINUTES. AT
TANANARIVE WE HAD THIS CONVERSATION.
CAPCOM APOLLO 7, HOUSTON TO TANANARIVE. STAND-
ING BY.
CAPCOM APOLLO 7, HOUSTON TO TANANARIVE.
SC ROGER, HOUSTON, HOW DO YOU READ?
CAPCOM YOU'RE FIVE BY, WE'RE STANDING BY.
SC (GARBLE)
CAPCOM ROGER.
SC HOUSTON, TEXAS TOWER JUST SIGHTED WEST
AT L, UH, 35½ (GARBLE)
CAPCOM ROGER, WE COPY.
SC (DEAD SPACE)
SC (GARBLE)
CAPCOM APOLLO 7, HOUSTON, YOU'RE 1 MINUTE LOS
TO TANANARIVE. WE'LL PICK UP ARIA 2 IN ABOUT 2 MINUTES, HAVE
CONTINUOUS COVERAGE THROUGH CARNARVON.
SC ROGER (GARBLE)
CAPCOM ROGER, I COULDN'T COPY THAT, WALLY.
SC ROGER, I BETTER GO THROUGH (GARBLE)
CAPCOM OKAY.
SC (GARBLE)
COMM ARIA 2 GO REMOTE.
CAPCOM APOLLO 7, HOUSTON TO ARIA 2 STANDING BY.
CAPCOM APOLLO 7, HOUSTON TO ARIA 2 STANDING BY.
SC (GARBLE)
CAPCOM I READ YOUR COPY.
COMM ARIA 2 HAS AOS. ARIA 2 HAS AOS.
SC (GARBLE)
CAPCOM THIS IS APOLLO CONTROL, HOUSTON. THE CREW
IS OVER MID-INDIAN OCEAN. THEY'RE RUNNING THROUGH THE CHECK-
LIST LEADING UP TO THE FIRST SPS BURN. PRESENTLY PROGRAMED
4 MINUTES - UH 4-1/2 MINUTES FROM NOW. THAT WOULD MAKE IT
ABOUT 2:25 - 2:26, 26 HOURS 25 MINUTES INTO THE MISSION.
THE BURN WILL BE, AS WE SAID, USING THE SERVICE PROPULSION
SYSTEM. IT WILL BE A 9.6-SECOND BURN. NOW THAT MIGHT VARY
VERY SLIGHTLY, BUT IT WILL BE ON THE ORDER OF 9 TO 10 SECONDS.
UH, IMPARTING DIFFERENTIAL VELOCITY OF 207 FEET PER SECOND.
THE BURN WILL BE DONE IN-PLANE, IN OTHER WORDS, IN THE DIREC-
TION OF FLIGHT AND THE RESULTANT APOGEE PERIGEE SHOULD BE
122 BY 197 OR THEREABOUT. HAVE THE EFFECT OF RAISING THE
APOGEE. OUR PRESENT ORBITAL ELEMENTS LEADING UP TO THE BURN
ARE A PERIGEE OF 120 AND APOGEE OF 164. AT 26 HOURS 21 MIN-
UTES INTO THE FLIGHT, THIS IS APOLLO CONTROL, HOUSTON.

END OF TAPE.

PAO THIS IS APOLLO CONTROL HOUSTON 26 HOURS 23 MINUTES INTO THE FLIGHT. WE HAVE ACQUIRED AT CARNARVON AND WE ARE STANDING BY. WE ARE ABOUT 60 SECONDS AWAY FROM THE FIRST BURN OF THE SERVICE PROPULSION ENGINE. THIS BURN WILL BE HANDLED BY THE GUIDANCE AND NAVIGATION SYSTEM. STANDING BY FOR AN ULLAGE BURN, 15 SECONDS AWAY FROM THE BURN. THE COUNTDOWN FROM 10, 4, 3, 2, 1 AND WE ARE THRUSTING, THE CREW REPORTS. THRUST CUTOFF AND IT LOOKS LIKE WE HAD ABOUT 9 TO 10 SECONDS. WALLY SCHIRRA'S COMMENT WAS THAT WAS A RIDE AND A HALF. WALT CUNNINGHAM DID MOST OF THE COMMENTARY - MOST OF THE ADVISING US TO WHAT WAS GOING ON DURING THAT TIME. SO THE SERVICE PROPULSION ENGINE, WHICH PUTS OUT SOMETHING LIKE 21,000 POUNDS OF THRUST, HAS PASSED ITS FIRST MAJOR TEST IN SPACE. AND NOW WE HAVE COMPARED THE DATA HERE, AND IT WAS A 10 SECOND BURN. IT'S BEEN QUIET FROM THE SPACECRAFT SINCE THE BURN. WE ARE LOOKING AT THE DATA HERE, WE GOT IT BY THE CARNARVON STATION. THE SPACECRAFT, AT THE START OF THE BURN, WAS ABOUT 300 MILES DUE WEST OF THE AUSTRALIAN CONTINENT, ABOUT DUE WEST PERTH. DONN EISELE HAS JUST CHECKED IN, HE IS HAPPY WITH THE BURN IN ALL RESPECTS. HERE IS THE TAPE OF THE ENTIRE SEQUENCE AS IT OCCURRED.

CAPCOM APOLLO 7, HOUSTON.
 SC ROGER HOUSTON, JUST A MINUTE.
 CAPCOM ROGER. I WILL GIVE YOU THAT TIME HACK
 AT T-2 MINUTES.
 SC ROGER.
 CAPCOM 2, 1, MARK. T-2 MINUTES.
 SC VERY GOOD.
 CAPCOM ADJUST THE AI SCALE 55.
 SC 55.
 CAPCOM L AND B SETS, A AND B NORMAL.
 SC OKAY, NORMAL. TWO IS NORMAL.
 CAPCOM HAND CONTROL IN ON.
 SC ROGER, ON.
 CAPCOM NUMBER 2, STANDING BY FOR 30 SECONDS.
 SC ROGER AND STANDING BY FOR 30.
 CAPCOM -60.
 SC ROGER.
 CAPCOM 30 SECONDS. AMS, DELTA-V AND R/O.
 SC R/O.
 CAPCOM ROGER. FULL CHARGE IN 15 SECONDS, YOU
 GETTING WHEN YOU HAVE 5 SECONDS, DONN.
 SC ROGER, I'LL HIT THE INNER.
 CAPCOM YOU HAVE GOT ONE COUNT ON THE FIFTH ONE.
 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0.
 SC TESTED. LIKE A BOMB, YABADABADOO.
 GREAT, MAN THAT'S LIKE A RIDE AND A HALF THERE.

PAO THIS IS APOLLO CONTROL HOUSTON 26 HOURS 23 MINUTES INTO THE FLIGHT. WE HAVE ACQUIRED AT CARNARVON AND WE ARE STANDING BY. WE ARE ABOUT 60 SECONDS AWAY FROM THE FIRST BURN OF THE SERVICE PROPULSION ENGINE. THIS BURN WILL BE HANDLED BY THE GUIDANCE AND NAVIGATION SYSTEM. STANDING BY FOR AN ULLAGE BURN, 15 SECONDS AWAY FROM THE BURN. THE COUNTDOWN FROM 10, 4, 3, 2, 1 AND WE ARE THRUSTING, THE CREW REPORTS. THRUST CUTOFF AND IT LOOKS LIKE WE HAD ABOUT 9 TO 10 SECONDS. WALLY SCHIRRA'S COMMENT WAS THAT WAS A RIDE AND A HALF. WALT CUNNINGHAM DID MOST OF THE COMMENTARY - MOST OF THE ADVISING US TO WHAT WAS GOING ON DURING THAT TIME. SO THE SERVICE PROPULSION ENGINE, WHICH PUTS OUT SOMETHING LIKE 21,000 POUNDS OF THRUST, HAS PASSED ITS FIRST MAJOR TEST IN SPACE. AND NOW WE HAVE COMPARED THE DATA HERE, AND IT WAS A 10 SECOND BURN. IT'S BEEN QUIET FROM THE SPACECRAFT SINCE THE BURN. WE ARE LOOKING AT THE DATA HERE, WE GOT IT BY THE CARNARVON STATION. THE SPACECRAFT, AT THE START OF THE BURN, WAS ABOUT 300 MILES DUE WEST OF THE AUSTRALIAN CONTINENT, ABOUT DUE WEST PERTH. DONN EISELE HAS JUST CHECKED IN, HE IS HAPPY WITH THE BURN IN ALL RESPECTS. HERE IS THE TAPE OF THE ENTIRE SEQUENCE AS IT OCCURRED.

CAPCOM APOLLO 7, HOUSTON.
 SC ROGER HOUSTON, JUST A MINUTE.
 CAPCOM ROGER. I WILL GIVE YOU THAT TIME HACK
 AT T-2 MINUTES.
 SC ROGER.
 CAPCOM 2, 1, MARK. T-2 MINUTES.
 SC VERY GOOD.
 CAPCOM ADJUST THE AI SCALE 55.
 SC 55.
 CAPCOM L AND B SETS, A AND B NORMAL.
 SC OKAY, NORMAL. TWO IS NORMAL.
 CAPCOM HAND CONTROL IN ON.
 SC ROGER, ON.
 CAPCOM NUMBER 2, STANDING BY FOR 30 SECONDS.
 SC ROGER AND STANDING BY FOR 30.
 CAPCOM -60.
 SC ROGER.
 CAPCOM 30 SECONDS. AMS, DELTA-V AND R/O.
 SC R/O.
 CAPCOM ROGER. FULL CHARGE IN 15 SECONDS, YOU
 GETTING WHEN YOU HAVE 5 SECONDS, DONN.
 SC ROGER, I'LL HIT THE INNER.
 CAPCOM YOU HAVE GOT ONE COUNT ON THE FIFTH ONE.
 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0.
 SC TESTED. LIKE A BOMB, YABADABADOO.
 GREAT, MAN THAT'S LIKE A RIDE AND A HALF THERE.

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 26:23:50

113/2

CAPCOM SPACECRAFT CONTROL SPS.
SC (GARBLE) FOR DELTA-V CORRECTION.
CAPCOM (GARBLE) 1.2, BURNING UP 1.9, AND WE
BURNT AFT 2.4.
CAPCOM ROGER, COPY THAT.
SC ROGER. WE ARE BURNING DOWN TO +4 BALLS
ONE, -4 BALL THREE, +4 BALL FOUR. WE ARE GOING TO QUIT
HERE.
CAPCOM WE COPIED REAL FINE.
SC RECOUNTER RESIDUALS -9.9.
CAPCOM COPY THAT.
SC GIMBAL MOTORS ARE ALL OFF. CIRCUIT
BREAKERS OPEN (GARBLE)
SC HOUSTON, APOLLO 7.
CAPCOM GO AHEAD.
SC GIVE YOU A PLUS ONE ON THAT. THAT'S
A REAL KICK IN THE CENTER. THAT REALLY SOCKS IT TO YOU.
CAPCOM ROGER.
SC A VERY SUDDEN START, THAT'S LIKE A
HYDRAULIC CATAPULT, ALMOST LIKE A STEAM CAP.
CAPCOM OKAY, I CAN'T HELP YOU OUT ANY COMPARED
TO (GARBLE)
SC THIS IS APOLLO 7, WE ARE NOW DRYING OFF
OUR HEADS.
CAPCOM ROGER (LAUGHTER).
CAPCOM YOU ARE ABOUT 30 SECONDS TO LOS IN
CARNARVON. WE WILL PICK YOU UP IN HAWAII IN A4UT 18 MIN-
UTES.
SC ROGER.
CAPCOM EVERYTHING LOOKED REAL FINE DOWN HERE.
SC (GARBLE) HERE. SURPRISED AT THE
(GARBLE) START.
CAPCOM ROGER.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 26:33:50 114/1

COMM ARIA 3, GO REMOTE.
CAPCOM APOLLO 7, THIS IS HOUSTON. WE WILL BE
MONITORING THROUGH ARIA 3 AT THIS TIME.
PAO THIS IS APOLLO CONTROL HOUSTON 26 HOURS
34 MINUTES INTO THE FLIGHT. WE MAY HAVE SOME ADDITIONAL
COMM THROUGH AN ARIA AIRCRAFT OFF THE NORTH COAST OF AUSTRALIA,
BUT IT IS REALLY RATHER DOUBTFUL. THE BURN WAS COMPLETED,
THE BURN AT 26 HOURS 25 MINUTES INTO THE FLIGHT. IT WAS 10 SECONDS
DURATION. IT WAS THE FIRST BURN OF THE SERVICE PROPULSION ENGINE
IMPARTING A DIFFERENTIAL VELOCITY OF 207 FEET PER SECOND. OUR
RESULTANT APOGEE AND PERIGEE ARE 125.3 NAUTICAL MILES, 125.3 NAUTICAL
MILES PERIGEE, 196.1 NAUTICAL MILES, 196.1 NAUTICAL MILES APOGEE.
THOSE ARE THE NEW ELEMENTS OF THE FLIGHT, AND THE BURN WAS NORMAL
IN ALL RESPECTS. THIS IS APOLLO CONTROL HOUSTON.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 264930 115/1

PAO THIS IS APOLLO CONTROL HOUSTON, 26 HOURS, 49 MINUTES INTO THE FLIGHT. WE HAVE JUST ACQUIRED BY THE HAWAII STATION. WE SHOULD HAVE A GOOD LONG PASS HERE. WE'RE ON THE 17 REV, IT SHOULD CARRY US ALL THE WAY OVER THE ANTIGUA STATION AND WILL PICK UP AGAIN QUICKLY AT ASCENSION. THE - I'M SURE THE MOST RECENT BURN WILL BE DISCUSSED, AS WE MOVE ACROSS THE STATES AND LET'S FIND OUT WHAT ELSE. THERE IS NO CONVERSATION ON THE LOOP RIGHT NOW AND - BUT WE DO HAVE THIS OPENING CONVERSATION A FEW SECONDS AGO AS WE MOVED IN TO HAWAII. LET'S LISTEN TO IT NOW.

CAPCOM APOLLO 7 THROUGH HAWAII, STANDING BY.
SC ROGER, JACK, I JUST DID WHAT YOU TOLD ME, TO LOOK AT THE BOOSTER AND I THINK I SAW IT, BUT IT WAS A LITTLE HARD TO TELL BECAUSE OF ALL THE DEBRIS I'VE BEEN PICKING UP SINCE SUNRISE. (GARBLE) AND I'M SURE THAT IS IT. LIKE I SAID THERE IS A LOT OF TRASH AND DEBRIS (GARBLE) IT'S KIND OF HARD TO TELL.

CAPCOM OKAY, ROGER, WE COPY THAT, DONN.
PAO THAT WAS DONN EISELE YOU HEARD SAYING THAT HE THINKS HE SAW THE BOOSTER, WHICH WOULD BE ABOUT 100 MILES AWAY ACCORDING TO OUR LAST CHECK. POSSIBLE, I THINK CERTAINLY POSSIBLE. WE WILL LEAVE THE LINE OPEN AND CONTINUE THE MODERATOR.

SC HOUSTON, APOLLO 7 READY TO READ.
CAPCOM I READ YOU (CUT OFF).
CAPCOM APOLLO 7, HOUSTON.
SC TWENTY-SEVEN HOURS INTO THE FLIGHT, WE'RE FIXIN TO TAKE SOME PICTURES OF THE (GARBLE).

CAPCOM ROGER, I UNDERSTAND. WALT OVER TEXAS, IN AOUT 3 MINUTES WE WILL HAVE 3 NAV LOADS WE WOULD LIKE TO SEND YOU. THERE WILL BE NO MCC2 MANEUVER, AND I'LL PASS YOU MANEUVER PAD AS SOON AS I GET IT.

SC ROGER, WAITING AND READY. (GARBLE)

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 27:03:30 116/1

CAPCOM APOLLO 7 HOUSTON. WE WOULD LIKE TO
SEND YOU YOUR THREE UP POSTS. WOULD YOU GO TO ACCEPT,
PLEASE.

SC ACCEPT. WE ARE IN ACCEPT.

CAPCOM ROGER COPY. COMING UP.

SC APOLLO 7 PROCEEDING DOWN TRIP TWO DIRECT
HOUSTON.

CAPCOM ROGER, COPY.

SC HEY JACK, I THINK WE ARE GOING TO PASS
HOUSTON. RUN OUTSIDE AND WAVE, WE WANT TO LOOK AT YOU FOR
A SECOND.

SC AND WHEN YOU GET BACK IN, JACK, WHY
DON'T YOU HAVE THE E COM TAKE A LOOK AT THE PERFORMANCE OF
THE FUEL VALVES AND IF THEY ARE MATCHING UP OUR PERFORMANCE
THERE.

CAPCOM SAY AGAIN ABOUT THE FUEL CELLS, WALT.

SC HOW ABOUT HAVING SOMEONE TAKE A LOOK AT
THE - WHAT THEY ARE DOING WITH THE SPECTRUM PERFORMANCE
PURGE. LOOKS A LITTLE LOW TO ME.

CAPCOM OKAY, WILL DO.

C GARBLED

CAPCOM ROGER COPY.

CAPCOM APOLLO 7, HOUSTON. I HAVE YOUR NSR PAD
THAT I'LL GIVE TO YOU WHENEVER YOU ARE READY.

SC READY TO COPY, GO.

CAPCOM ROGER. NSR 028 00 5000 MINUS 00927 PLUS
00013 MINUS 01486 1536 PLUS 1139 01649 31599 MINUS 086
MINUS 040 008 NA NA NA 027 17 0000 PLUS 1959 MINUS 055534
1750 001 096 000. REMARKS RETROGRADE PITCHED UP 55 DEGREES,
HEAD DOWN.

SC ROGER, SAY AGAIN AFTER NA AND IT SEEMS
TO ME THE CAPCOM'S - THERE IS A DIFFERENCE IN PURPOSE HERE -
I THINK YOU'RE GIVING AN NA FOR EACH LINE?

CAPCOM ROGER. LET ME READ AFTER THE FIRST THE
BURN TIME - BURN TIME IS 0 PLUS 08 NA NA NA. DO YOU WANT -
DID YOU GET COPY NOW ON 34 AND ON 43?

SC DID NOT.

CAPCOM OKAY. 027 17 ALL BALLS PLUS 1959 MINUS
05534 1750 001 096 000. I HAVE A CORRECTION ON THE NOUN 33
TIME. THAT SHOULD BE - THE SECOND SHOULD READ 5600.

SC ROGER, READ BACK THE FOLLOWING: NSR
028 00 5000 MINUS 00927 PLUS 00013 MINUS 01486 1536 PLUS 1139
01649 31599 MINUS 086 MINUS 040 008 NO SEXTANT STAR 027 17
0000 PLUS 1959 MINUS 05534 1750 001 096 000 RETROGRADE
PITCHED UP 55 HEAD DOWN. OVER.

CAPCOM ROGER. I HAVE THE BORE SIGHT STAR FOR
YOU. THAT'S 045 PLUS 278 UP 0.2 LEFT.

SC ROGER, STAR 45 PLUS 278 UP AND 0.2 LEFT
WHERE IS THE DECIMAL ON THE UP?

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 27:03:30

116/2

CAPCOM 27.8.

SC 27.8 THANK YOU.

SC (GARBLED)

CAPCOM 27.8.

SC THANK YOU.

SC (GARBLED) WE COMPLETED A SERIES OF
PHOTOGRAPHS FROM THE (GARBLED) GULF COAST AND HOUSTON
(GARBLED)

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 27:13:30 117/1

CAPCOM UH, WALLY, YOU WERE A LITTLE BIT GARBLED,
I DIDN'T CATCH YOU.

SC (GARBLE) HAWAIIAN ISLAND, ACROSS THE
GULF COAST, THROUGH FLORIDA TO GRAND BAHAMA, OUR MAGAZINE
PETERED ABOUT THAT TIME (GARBLE)

CAPCOM ALRIGHT, I'VE GOT A COPY OF THAT NOW.

SC (GARBLE)

CAPCOM OKAY.

SC (GARBLE) 3-1/2 CROSSING THAT (GARBLE)

CAPCOM APOLLO 7. ALL THREE LOADS ARE IN THEIR
FIVE PETER HERE.

SC (GARBLE)

CAPCOM THIS IS APOLLO CONTROL, HOUSTON, 27 HOURS
16 MINUTES INTO THE FLIGHT. WE STILL HAVE A LITTLE WAY TO
GO IN THE ANTIGUA CIRCLE, BUT IT'S QUESTIONABLE WHETHER WE
WILL HAVE ANY MORE COMM WITH THE CREW UNLESS PERHAPS WE PICK
THEM UP AGAIN IN ASCENSION. WE'VE BEEN LOOKING HERE AT THE
CONSUMABLE CHART ON WEIGHTS UP TO DATE, AND ACTUALLY THESE
NUMBERS ARE COMING TO US FROM ANTIGUA. THEY READ LIKE THIS:
THE COMMAND MODULE DRY WEIGHT - THAT IS IF THERE WERE NO
OTHER WEIGHTS ABOARD: THE PRESENT DRY WEIGHT READING OF IT
IS L2 203 POUNDS; SERVICE MODULE DRY WEIGHT, 8630 POUNDS.
WE HAVE SOME ADDITIONAL READINGS HERE ON THE VARIOUS - UH THE
FOUR QUADS. RCS QUADS, THE REACTION CONTROL SYSTEM QUADS
ON THE SERVICE MODULE. THEY GO LIKE THIS: QUAD A, PROPELLANT
WEIGHT - TOTAL PROPELLANT WEIGHT IN POUNDS, 281; QUAD B, 289
POUNDS; QUAD C, 276 POUNDS; QUAD D, 288 POUNDS. THE SPS
FUEL PROPELLANT WEIGHT IN THE SERVICE MODULE 3374 POUNDS
AND WE JUST LOST THE CHART. STAND BY ONE UNTIL WE FIND
WHICH CHANNEL IT WAS SWITCHED TO. I'M SORRY, WE'VE LOST THE
CHART. IT'S - WE WILL LOCATE IT AND COME BACK TO YOU AND - .
THE CREW HAS JUST BEEN GIVEN A 60 SECONDS TO LOS AND
IN WHICH THEY ROGERED. THIS IS APOLLO - THIS IS APOLLO CON-
TROL HOUSTON.

END OF TAPE.

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 27:27:42

118/1

PAO THIS IS APOLLO CONTROL HOUSTON 27 HOURS
27 MINUTES INTO THE FLIGHT. VIA ASCENSION WE HAVE HAD THIS
CONVERSATION.

CAPCOM APOLLO 7 HOUSTON THROUGH ASCENSION
~~SC~~ ROGER, WOULD YOU MARK 20 CLICKS OF
WATER FOR CDR OVER (GARBLED)

CAPCOM HOW MANY CLICKS OF WATER?

SC 20.

CAPCOM 20, ROGER COPY. AND ON THE FUEL CELL
PERFORMANCE WE ARE FINDING THE FUEL CELLS ARE RIGHT ON
NOMINAL, HOWEVER, WE ARE GOING TO CONTINUE TO MONITOR THE
PERFORMANCE AS WE GO ALONG HERE.

SC ROGER. HE'S DOING A PRETTY GOOD JOB
TODAY.

CAPCOM THANK YOU. YOU GUYS ARE, TOO.

SC JACK, HOW ARE WE DOING ON OUR FUEL
PRESSURE?

CAPCOM COULD YOU SAY AGAIN, WALT?

SC HOW ARE WE DOING ON OUR FUEL PRESSURES?

CAPCOM OKAY, JUST A MINUTE. WE'LL GET IT
RIGHT TO YOU.

SC (GARBLED)

CAPCOM WALLY, ON THE RCS BUDGET, WE THINK WE'LL
BE RIGHT ON NOMINAL GOING IN TO TPI.

SC GREAT.

SC AND JACK, OKAY, WE'VE GOT OUR TAPE
BACK NOW, I GUESS, OR ARE WE DUMPING IT? IF WE USE ANOTHER
32 PASS AGAIN WITH NO TAPE WE ARE GOING TO STUFF UP.

CAPCOM OKAY.

CAPCOM APOLLO 7 YOU ARE 1 MINUTE LOS ASCENSION.
WE'LL PICK YOU UP IN TANANARIVE IN 8 MINUTES.

END OF TAPE

PAO

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 27:51:20

119/1

PAO THIS IS APOLLO CONTROL HOUSTON 27 HOURS 51 MINUTES INTO THE FLIGHT. WE'VE GOT SOME CONVERSATION THROUGH CANARY. WE WILL PLAY THAT FOR YOU IN JUST A MOMENT. BEFORE WE GET TO THAT, ONE OR TWO OTHER THINGS. WE'VE GOT SOME DATA HERE TAKEN ON THE LAST PASS OVER ASCENSION WHERE WE LOOKED AT THE HEART RATE, SOME OF THE PHYSICAL PARAMETERS ON BOARD THE SPACECRAFT AND SOME OF THE SPECIFIC PHYSICAL PARAMETERS ON THE LUNAR MODULE PILOT, WALTER CUNNINGHAM. THEY LOOK LIKE THIS. HIS MEAN HEART RATE WAS 66, HIS RESPIRATIONS WERE 21 PER MINUTE, AND THEN AS TO THE CABIN, THE CABIN PRESSURE AT ASCENSION WAS 5.1 AND VERY STEADY, CABIN TEMPERATURE 69 DEGREES FARENHEIT. I GUESS THOSE ARE THE PERTINENT READINGS ON THAT CHART. THE S-IVB, THE SECOND STAGE COMING ON THIS SECOND BURN, WHICH WILL BE PERFORMED ABOUT 8 MINUTES FROM NOW OVER CARNARVON, SECOND IN A SERIES OF BURNS TO BRING OFF THE RENDEZVOUS WITH THE S-IVB. THE PRESENT POSITION ON THAT S-IVB IS ABOUT 80 MILES TRAILING THE COMMAND MODULE, ABOUT 80 MILES TRAILING IT. IT WILL REACH A MAXIMUM SEPARATION ACCORDING TO OUR PLOTS, OF ABOUT 87 MILES, JUST A MINUTE OR TWO BEFORE THE BURN. WE HAVE NOW THE TANANARIVE CONVERSATION, LET'S PLAY IT.

CAPCOM APOLLO 7, HOUSTON THROUGH TANANARIVE. APOLLO 7, HOUSTON THROUGH TANANARIVE. APOLLO 7, HOUSTON THROUGH TANANARIVE.

CAPCOM APOLLO 7, HOUSTON THROUGH TANANARIVE. TANANARIVE M & O, CAPCOM. TANANARIVE M & O, HOUSTON CAPCOM. APOLLO 7, HOUSTON THROUGH TANANARIVE. APOLLO 7, HOUSTON THROUGH TANANARIVE. APOLLO 7, HOUSTON. TANANARIVE, HOUSTON CAPCOM.

TAN HOUSTON CAPCOM, TANANARIVE M & O.
CAPCOM CAN YOU CONFIRM IF I AM GOING OUT DOWN THERE?

TAN AFFIRMATIVE. WE ARE TRACKING YOU 100 PERCENT.

CAPCOM THANK YOU. APOLLO 7, HOUSTON.
SC ROGER, APOLLO 7, READING YOU LOUD AND CLEAR. HOW ARE WE, OVER.

CAPCOM YOU ARE FINE NOW, WALT. WE WOULD LIKE YOU TO PUT UP TELEMETRY SWITCH TO COMMAND RESET THEN NORMAL. WE MISSED THE COMMAND GOING OUT OF ASCENSION.

SC ROGER. TELEMETRY RESET THEN NORMAL.
CAPCOM ROGER AND YOU WILL ON THE A FOR THE BURN.

SC ROGER.
CAPCOM APOLLO 7, HOUSTON. YOU ARE 1 MINUTE LOS TO TANANARIVE. WE WILL PICK YOU UP OVER CARNARVON IN ABOUT 7 MINUTES.

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 27:51:20

119/2

SC
CAPCOM
SC
CAPCOM

ROGER. (GARBLE)
SAY AGAIN.
WILL WE BE IN TOUCH DURING THE BURN?
YES SIR, YOU WILL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 27:57:30 120/1

PAO THIS IS APOLLO CONTROL HOUSTON, 27 HOURS, 57 MINUTES INTO THE FLIGHT. WE HAVE ESTABLISHED CONTACT BY CARNARVON AND WE'RE ABOUT 2 MINUTES AWAY FROM OUR SECOND SPS BURN TODAY. BURN PROGRAM FOR ABOUT 8 SECONDS, A DIFFERENTIAL VELOCITY OF 175 FEET PER SECOND. WE'LL YOU IN ON THE CONVERSATION, JACK SWIGERT IS GOING TO GIVE THE CREW A MARK OF 2 MINUTES.

SC (GARBLE)

CAPCOM APOLLO 7, HOUSTON.

SC ROGER, STANDBY (GARBLE)

CAPCOM APOLLO 7, HOUSTON. READING YOU 5 BY, I'LL GIVE YOU A MARK IN 2 MINUTES.

SC ROGER.

PAO WE'VE JUST GIVEN A MARK OF T-2 MINUTES. CUNNINGHAM ADVISES HE'S STANDING BY FOR A 30 SECOND MARK. THIS BURN IS PROGRAMED TO HAVE THE EFFECT ON THE ORBIT RESULTING, SHOULD BE 114 BY 154 NAUTICAL MILES. WE'RE 1 MINUTE AWAY FROM THE BURN. 8, 7, 6, 5, 4, 3, 2, 1 AND WE ARE THRUSTING, SCHIRRA SAYS. PRESSURES IN THE SERVICE PROPULSION ENGINE ARE QUITE GOOD AND I THINK WE HEARD THRUST OFF. AND AS THE PITCH AND YAW THRUSTERS ARE SHUT-DOWN, THEY ARE REPORTED BY THE CREW. SPS BURN, ACCORDING TO THE CHART HERE BEGAN AT 28 HOURS, 1 MINUTE, 6 SECONDS INTO THE FLIGHT. IT ENDED AT 28 HOURS, 1 MINUTE, 14 SECONDS, AN 8 SECOND BURN. THE OTHER BURN SET US UP ON A CIRCULAR PLANE WHICH HAS CARRIED US AROUND TO A POINT WHERE WE ARE NOW FIRING THE BOOSTER ABOUT 85 MILES. NOW WE WILL BEGIN CLOSING AND AT ABOUT 1 HOUR, 23 MINUTES FROM NOW, AT 29 HOURS, 23 MINUTES WE SHOULD BEGIN THE TERMINAL PHASE OF INITIATION BURN, WHICH WILL BE THE FINAL BURN ON BRINGING US FROM A POINT WE'RE ON A PLANE NOW RUNNING ABOUT 8 MILES UNDER THE LINE ON THE LINE OF FLIGHT OF THE BOOSTER AND THIS WILL SWING US UP TO HOPEFULLY THE RENDEZVOUS WITH THE BOOSTER, COMING UP JUST SLIGHTLY IN FRONT OF IT, WE ESTIMATE AND ABOUT 30 HOURS INTO THE FLIGHT. HERE IS THE ENTIRE TAPE THROUGH THE SECOND BURN SEQUENCE. WE'LL PLAY IT FOR YOU NOW.

CAPCOM 3, 2, 1, MARK. T-2 MINUTES.

CAPCOM SCIA SCALE 55. (GARBLE) A AND B NORMAL.

SC A NORMAL, B NORMAL.

CAPCOM 30 SECONDS. END CONTROLLERS ON. STANDING BY FOR

CAPCOM MINUS 1 MINUTE.

SC ROGER, 1 MINUTE. DELTA-V AUTO.

CAPCOM FOUR CHARLIE, 15 SECONDS.

SC ROGER, (GARBLE) AT THE COUNT OF 4

(GARBLE).

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 275730

120/2

CAPCOM 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0.
SC TESTED. BURN COMPLETE, ALL 4 BALLS
(GARBLE).
CAPCOM ROGER, COPY.
CAPCOM DELTA-V THRUST AV OFF.
SC ROGER, PITCH END OFF, YAW ONE OFF,
PITCH TWO OFF, YAW TWO OFF.
SC RESIDUALS ARE + 4 BALLS ONE + 5 BALLS
+ 4 BALLS TWO AND WE BURNT ABOUT A TOTAL OF 6 FEET PER
SECOND.
CAPCOM ROGER, COPY.
SC RESIDUALS -9.9.
CAPCOM OKAY, COPY THAT.
SC (GARBLE)
CAPCOM SAME EXACT NUMBER.
SC (GARBLE)
SC HOUSTON, APOLLO 7, WISH TO COMMENCE
BATTERY CHARGING ON BATTERY A, I WOULD SAY A CURVE RIGHT
NOW OF ABOUT 2.3.
CAPCOM ROGER.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 2823L6 121/1

PAO THIS IS APOLLO CONTROL, HOUSTON, 28 HOURS
23 MINUTES INTO THE FLIGHT. HAWAII SHOULD ACQUIRE MOMENTARILY
AND WE WILL BE LISTENING FOR THAT PASS WHICH WILL TAKE US ACROSS
THE STATES. EARLY TODAY WE WERE TALKING ABOUT A CHART WHICH
GOT UNLATCHED IN THE MIDDLE OF OUR TRANSMISSION AS WE ARE
DISCUSSING ONBOARD WEIGHTS. WE'VE SINCE RUN THAT CHART DOWN
AND OF INTEREST TO US ON IT AND I HOPE TO YOU WILL BE ONE WAY
THE CURRENT TOTAL COMMAND SERVICE MODULE WEIGHT, WHICH IS -
CARRIED AT 30 980 POUNDS. NOW WE HAVE CONTACT WITH THE CREW,
NOW LET'S FIND OUT WHAT'S GOING THERE.

HAW APOLLO 7 THROUGH HAWAII, STANDING BY.

CAPCOM THANK YOU.

SC ROGER, I GOT YOU..(GARBLE) THE THING IS
REALLY TAKING IN THERE, RIGHT ON THE MONEY.

CAPCOM ROGER, YOU'RE FADING IN AND OUT, BUT I THINK I
GOT IT. YOU'RE TRACKING OKAY.

SC POP AND SEAL TWO-WAY LOCK, VENT AND DRAIN.
END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GLT: 28:11:23 122/1

COMM	ARIA GO REMOTE.
CAPCOM	APOLLO 7, HOUSTON TO ARIA 3 STANDING BY.
SC	ROGER. READ YOU.
CAPCOM	APOLLO 7, HOUSTON TO GUAM, STANDING BY.
CAPCOM	APOLLO 7, HOUSTON 1 MINUTE LOS GUAM;
HAWAII IN 8 MINUTES.	
SC	(GARBLE)
CAPCOM	NOT TOO BAD.

END OF TAPE

SC CREW TO APOLLO 7.
CAPCOM APOLLO 7, HOUSTON GO AHEAD.
SC WHY CAN'T WE GET THE RECORD FOR HERE
DONN, FOR A LOT OF COMMENTS BACK TO THE GROUND MODE?
SC (GARBLE) ARE YOU RECORDING THIS DOWN
THERE?
CAPCOM ARE WE RECORDING?
SC ROGER, I'M ALMOST 3 MINUTES INTO THIS
TPI SOLUTION HERE AND IT SEEMS LIKE QUITE A WHILE, I WAS
WONDERING WHEN YOU ARE PLANNING TO TAKE IT OFF.
CAPCOM ROGER, DONN. WE'RE TRYING TO MARK THE
UH, POLAR PLOT ALONG WITH YOU HERE AS YOU GO THROUGH THE
SOLUTION.
SC WHENEVER WE CALL K THREE, FOUR OR SOME
SUCH THING YOU CAN EXPECT IT TO DROP THE TRACKING OR PULL
OFF SOME AND THEN WE WILL RETURN AFTER YOU GET BACK TO THE
BASIC PROGRAM, FOR INSTANCE, THE TPI SOLUTION JUST CAME
BACK AND BEFORE WE GOT IT (GARBLED) TARGET ADAPTER ALSO I
DO NOT HAVE (GARBLED)
CAPCOM ROGER - APOLLO 7 HOUSTON
SC ROGER
CAPCOM ROGER, WALT, WE'LL HAVE A CLEAN TAPE
FOR YOU TO RECORD THE RENDEZVOUS ON THAT ANTIGUA LOS WHICH
OCCURS ABOUT 28.54.
SC ROGER, 28.54
CAPCOM ROGER
PAO THIS IS APOLLO CONTROL HOUSTON 28 HOURS,
47 MINUTES INTO THE FLIGHT AND WE ARE ABOUT HALF WAY THROUGH
PERHAPS THE LONGEST AND QUIETEST STATE-SIDE PASS IN OUR
MEMORY. THE CREW IS WORKING ON THE RENDEZVOUS, THEY ARE
RAPIDLY APPROACHING THE TERMINAL PHASE OF IT AND WE CAN
ONLY ASSUME THAT ACCOUNTS FOR THE QUIET. WE HAVE THE LINE
OPEN AND WE'LL JUST LEAVE IT OPEN AND CONTINUE TO MONITOR
THE SITUATION WHATEVER MIGHT DEVELOP

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 284500

124/1

CAPCOM APOLLO 7 HOUSTON. I HAVE YOUR TPI UPDATE
PAD I WILL GIVE YOU WHEN YOU ARE READY TO COPY.

SC READY TO COPY, GO.

CAPCOM ROGER. 029 183400 PLUS 150 PLUS 019
MINUS 075 168/46 FORWARD 020/11 RIGHT 003/03 DOWN 075/08
01960 MINUS 0729 02240 35950 133 TRUNION CHECK. THE GET
IN MIDCOURSE 029 PLUS 23 PLUS 00. REMARKS, YOU WILL BE
FLAT AT TPI.

SC ROGER, THAT'S FLAT AT TPI MIDCOURSE.
029 PLUS 23 PLUS 00 TPI UPDATE FOLLOWS: 029 183400 PLUS 150
PLUS 019 MINUS 075 168 46 FORWARD 020 11 RIGHT 003 03 DOWN
075 08 01960 MINUS 0729 MINUS 0240 35950 133 ON THE TRUNION.
OVER.

CAPCOM ROGER. YOUR ELEVATION MINUS 5 MINUTES
I COPY, IT SHOULD BE 02240.

SC IS THAT - OH - 02240.

CAPCOM ROGER. EVERYTHING ELSE CORRECT. I'LL
GIVE YOU A DELTA-V CUTOFF IN A MINUTE.

CAPCOM YOUR DELTA-V CUTOFF WILL BE 90.

SC 90 COPY.

CAPCOM APOLLO 7 HOUSTON.

SC GO AHEAD.

CAPCOM ROGER, WALT, YOU HAVE A CLEAN TAPE ON
THE DSC. YOU SHOULD HAVE 3 SWITCHES IN PROPER POSITION
THERE. TELEMETRY INPUT SHOULD BE HIGH, YOUR FORMER REWIND
SWITCH SHOULD BE OFF, YOUR UP TELEMETRY SWITCH - COMMAND
RESET TO NORMAL. WHEN YOU WANT TO RECORD THEN CYCLE THE
FORWARD REWIND SWITCH TO FORWARD THEN OFF.

SC ROGER, BUT WE DON'T WANT TO BE RECORDING
AT DCM HIGH. YET WE WANT TO STILL GET ALL THE RCS BURNS ON
HIGH TAPE. OVER.

CAPCOM OKAY, STANDBY.

CAPCOM OKAY, APOLLO 7, YOU ARE GO THE WAY
YOU WANT TO DO IT. WE'LL HAVE A MIXED DUMP, BUT THAT WILL
BE OKAY.

SC ROGER. DO YOU UNDERSTAND THAT I'LL
BE GOING - I'LL BE STOPPING THE TAPE AND GOING TO HIGH
PITCH RATE FOR EACH OF THE RCS BURNS AND AFTER THE LAST
RCS BURN I'LL RUN AT HIGH PITCH RATE RIGHT ON INTO THE
RENDEZVOUS TILL THE TAPE IS UP.

CAPCOM ROGER, WE UNDERSTAND THAT.

PAO THIS IS APOLLO CONTROL HOUSTON. WE
ARE OUT OF RANGE OF THE SPACECRAFT AND AT 28 HOURS 56 MIN-
UTES INTO THE FLIGHT THAT'S OUR SITUATION.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 290134

125/1

CAPCOM
STANDING BY.

SC

CAPCOM

SC

CAPCOM

TRACKING DATA ACROSS THE STATES INDICATES THAT TPI COULD
OCCUR ABOUT 30 SECONDS EARLIER. ALL OUR OTHER VALUES RE-
MAIN UNCHANGED.

SC

CAPCOM

SC

MARK IT 11.

CAPCOM

DO YOU WANT 10?

SC

CAPCOM

MARKING.

SC

CAPCOM

MINUTES.

END OF TAPE

APOLLO 7, HOUSTON THROUGH ASCENSION,

ROGER.

APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.

GO AHEAD, HOUSTON.

JUST FOR YOUR INFORMATION ONLY, THE

ROGER. WE SHOW 16 + 45 ON OUR (GARBLE)

ROGER.

THE (GARBLE) NOW IS 7, BUT YOU CAN

OKAY, IT'S 28. I'LL GIVE YOU 1030 OR

(GARBLE)

35 SECONDS, 10 SECONDS, 3, 2. 1, AND

(GARBLE)

APOLLO 7, HOUSTON. TANANARIVE IN 10

PAO THIS IS APOLLO CONTROL, HOUSTON 29 HOURS 17 MINUTES INTO THE FLIGHT. THE SPACECRAFT IS OVER THE SOUTHERN TIP OF AFRICA AND WE ARE ABOUT TO ACQUIRE VIA TANANARIVE WHETHER THERE WILL BE ANY CONVERSATION, WE DON'T KNOW. WE HAVE GOTTEN SOME NUMBERS ON THE FIRST TWO BURNS USING THE SERVICE PROPULSION SYSTEM - THE BIG ENGINE AND THEY GO AS FOLLOWS: THE FIRST BURN PERFORMED EARLIER IN THE DAY USED 674 POUNDS OF PROPELLANT. THAT'S A COMBINATION OF FUEL AND OXIDIZER. AGAIN, 674 POUNDS IN THE FIRST BURN. IN THE SECOND BURN, 565 POUNDS OF PROPELLANT USED AND THE COMBINATION LEAVES IN, IN A, LEAVES IN THE SERVICE PROPULSION SYSTEM PROPELLANT TANKS 8235 POUNDS REMAINING. NOW ADDITIONAL BURNS HAVE BEEN DONE THROUGHOUT THE NIGHT AND THROUGHOUT THE DAY WITH THE SERVICE MODULE REACTION CONTROL SYSTEM THRUSTERS AND UP UNTIL THIS POINT WE HAVE LOGGED THE TOTAL USAGE OF 262 POUNDS, 262 POUNDS OF PROPELLANT IN THE RCS AND THAT LEAVES A REMAINDER OF 1045 POUNDS. TANANARIVE SHOULD ACQUIRE MOMENTARILY AND WHEN IT DOES WE WILL COME INTO THAT CONVERSATION. IN ABOUT 5 MINUTES - OR MORE PRECISELY AT 29 HOURS 23 MINUTES INTO THE MISSION, 4 MINUTES FROM NOW, THE SPACECRAFT SHOULD BE TRAILING THE S-IVB BY ABOUT 12 MILES AND IT SHOULD BE RUNNING ABOUT 8 MILES BELOW THE S-IVB AND AT THAT POINT, APPROXIMATELY 29 HOURS 23 MINUTES THEY WILL BEGIN TERMINAL PHASE INITIATION. THERE'S THE FIRST CALL GOING OUT TO 7 VIA TANANARIVE.

PAO THIS IS APOLLO CONTROL. I DON'T SEE ANY POINT IN DEAFENING EVERYBODY IN THE NEWS CENTER. WE WILL COME BACK AS SOON AS WE GET A CLEANER SIGNAL. OUT AT 29 HOURS 20 MINUTES.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 292230 127/1

PAO THIS IS APOLLO CONTROL HOUSTON, 29 HOURS, 22 MINUTES INTO THE FLIGHT. WE HAVE A LITTLE TAPE BY TANANARIVE; IT IS UNREADABLE BUT WE'LL LET YOU HEAR IT ANYWAY, AND IF YOU CAN UNDERSTAND WHAT THEY'RE SAYING, YOU'RE BETTER THAN A LOT OF PEOPLE THAT TRIED TO HEAR IT. WE DID PICK OUT ONE OR TWO WORDS ON IT THAT THE CREW HAD GONE AHEAD WITH THE TPI, THE TERMINAL PHASE INIATION, OF THE RENDEZVOUS SITUATION AND THEY ARE USING A PROGRAM WHICH CALLED 4 TPI AT 29 HOURS, 17 MINUTES; EARLIER I GAVE YOU 29 HOURS AND 23 MINUTES; I WANT TO CORRECT THAT. THEY DID BEGIN THE TPI BURN AT 29 HOURS, 17 MINUTES. WE'LL ALL KNOW WHEN THEY GET TO CARNARVON HOW EVERYTHING CAME OUT. HERE'S THAT TANANARIVE TAPE.

CAPCOM APOLLO 7, HOUSTON THROUGH TANANARIVE;
STANDING BY.

SC (GARBLE) THREE HOURS (GARBLE) RETRO
CAPCOM WALT, WE GOT REAL BAD COM HERE AT
TANANARIVE; WE COULD READ THAT YOU WERE SAYING SOMETHING BUT
WE CAN'T MAKE IT OUT.

SC OKAY; WE'LL ALL DO WHAT YOU SAY. (GARBLE)
IGNITION -

CAPCOM WE COULDN'T MAKE IT OUT - WE MADE OUT
THE WORD PPI AND THAT WAS ALL. CAN YOU CONFIRM THAT YOU
HAVE BURNED PPI?

SC THAT IS AFFIRMATIVE.

CAPCOM ALRIGHT; WE GOT IT. THANK YOU.

SC POWER - 3, 2, 1, MARK.

CAPCOM 7, WE ARE 1 MINUTE LOS TANANARIVE; WE'LL
PICK YOU UP FOR A VERY SHORT PASS AT CARNARVON IN 9 MINUTES.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 293200 128/1

PAO THIS IS APOLLO CONTROL HOUSTON, 29 HOURS
32 MINUTES INTO THE FLIGHT. IN ONE SMALL HISTORICAL NOTE
PERHAPS WORTH MENTIONING, IT WAS NEARLY 3 YEARS AGO, LACKING
3 YEARS BY 2 MONTHS, THAT THE SAME SPACECRAFT COMMANDER
WALLY SCHIRRA, THEN IN COMMAND OF GEMINI 6, CARRIED OUT THE
WORLD'S FIRST RENDEZVOUS OVER PERHAPS VERY NEARLY THE EXACT
SAME PIECE OF REAL ESTATE WHEN GEMINI 6 PULLED UP IN FRONT
OF GEMINI 7. THAT RENDEZVOUS TOOK PLACE OVER THE ISLANDS JUST
NORTH TO NORTHWEST OF AUSTRALIA, AND APPARENTLY IF EVERYTHING
CONTINUES TO GO AS WELL AS IT HAS IN THIS MANEUVER, APOLLO 7
WILL PULL UP IN FRONT OF THE S4B IN ALMOST PRECISELY THE SAME
LOCATION. IT WILL BE ANOTHER 11 MINUTES BEFORE WE GET ANY
DEFINITIVE INFORMATION PROBABLY ON JUST HOW THE MANEUVERS GO
AND THAT INFORMATION SHOULD COME TO US THROUGH GUAM. THIS
IS APOLLO CONTROL, HOUSTON.

END OF TAPE

PAO APOLLO CONTROL, HOUSTON HERE, 29 HOURS 45 MINUTES INTO THE FLIGHT, AND WE'VE BEEN HAVING SOME POWER DIFFICULTIES IN BUILDING 1 TODAY AS OPPOSED TO BUILDING 30 YESTERDAY. EVERYTHING BACK - IS UP NOW AND OPERATING AGAIN. I UNDERSTAND EVEN THE PHONES ARE WORKING. THEY WERE OUT FOR ABOUT 5 MINUTES. WE'VE GOT A LITTLE TAPE FROM CANARVON THEN WE'LL PATCH RIGHT INTO THE GUAM AREA WHICH IS ABOUT TO ACQUIRE. HERE'S THE TAPE AND THEN WE'LL GO INTO A LIVE PASS ACROSS GUAM.

CAPCOM APOLLO 7 HOUSTON TO CANARVON, STANDING BY.

SC (GARBLE)
 CAPCOM SEVEN 1 MINUTE LOS; GUAM IN 7 MINUTES.
 SC ROGER, COMING UP THE PIKE.
 CAPCOM ROGER.
 SC (GARBLE) HAVE BEEN CORRECTED.
 CAPCOM BE THERE IN 5 MINUTES.

PAO APOLLO CONTROL HERE. THE PROGRAM SHOWS THAT THEY SHOULD BE IN THEIR BREAKING MODE ABOUT 1 MILE OUT AT THIS POINT. WE HAVE NOT HEARD FROM THEM, WE DO HAVE SOME DATA COMING IN FROM GUAM THAT SHOWS THEM APPROXIMATELY 1 MILE FROM TARGET. WE JUST HEARD GENE CERNAN COMMENT. HE'S BEEN PLOTTING IN HERE THAT, UH - HIS STATEMENT WAS "THEY'RE RIGHT ON THE PIKE." WE'LL MONITOR THE OPEN LINE.

PAO I UNDERSTAND THEY'RE INSIDE OF A MILE AND BRAKING. BRAKING LIKE HELL AS ONE FLIGHT CONTROLLER JUST PUT IT.

PAO A LOT OF THRUSTER ACTIVITY SHOWING UP ON OUR CHARTS HERE. AS WE LOOK AT THE RCS QUADS USING ALL FOUR OF THEM HERE NOW AGAIN. WE'RE GETTING SOME EDUCATED GUESSES THAT THEY OUGHT TO BE ON THE ORDER OF A HALF MILE FROM THE S-IVB. THEY HAVE NOT SAID ANYTHING AS WE MOVE THROUGH THE GUAM AREA. STILL GOT ABOUT HALF OF IT TO GO. ANOTHER 2 OR 3 MINUTES. EARLIER, WE GAVE YOU A - PRIOR TO THIS VITAL MANEUVER, WE SHOWED 1045 POUNDS OF PROPELLANT REMAINING IN THE RCS QUADS. ALL FOUR QUADS NOW ARE DOWN THE RANGE OF ABOUT 180 TO 190. ALL OF THEM WITH THE EXCEPTION OF ONE, UNDER 200 POUNDS, AND ALL FOUR QUADS VERY ACTIVE. SO, WE'VE GOT SOMETHING - WE'VE USED ABOUT 250 POUNDS OF RCS FUEL, IT WOULD APPEAR, ON THIS MANEUVER TO DATE, WHICH IS PRETTY CONSERVATIVE USAGE.

CAPCOM APOLLO 7 HOUSTON, 1 MINUTE LOS GUAM; HAWAII IN 8 MINUTES.

SC WE'RE CLOSING, WE'RE AT ABOUT 7 OR 8 FEET. WE'RE JUST ABOUT LOCKED UP IN THIS LOOP.

CAPCOM REAL FINE, WALLY.
 SC (GARBLE)
 CAPCOM REAL FINE.

PAO THIS IS HOUSTON, UH, YOU HEARD SCHIRRA SAY HE WAS ABOUT 400 FEET AWAY FROM THE TARGET, BRAKING AT 50 TO 60 FEET PER SECOND, AND IT SEEMED TO BE GOING VERY NICELY. THE TIME OF THAT LAST TRANSMISSION OF THE SPACECRAFT WAS AT A LATITUDE OF 20 DEGREES NORTH, A LONGITUDE OF A 100 AND AOUT 150 DEGREES EAST, 150 EAST, 20 NORTH. LET'S MAKE THAT 155 EAST AND 20 NORTH. 155 EAST, 20 NORTH. WE HAVE LOST SIGNAL NOW BY GUAM. WE DON'T KNOW WHAT THE SITUATION WAS WITH THE S-IVB, WHAT IT'S ATTITUDE WAS. WE'LL KNOW MORE IN ABOUT 8 MINUTES WHEN WE GET TO HAWAII. AT 29 HOURS 53 MINUTES INTO THE FLIGHT, THIS APOLLO CONTROL, HOUSTON.

END OF TAPE

PAO APOLLO CONTROL HOUSTON HERE. 29 HOURS
59 MINUTES AND MOMENTARILY WE SHOULD ACQUIRE THE SPACECRAFT
VIA HAWAII AND HEAR MORE ABOUT HOW THE RENDEZVOUS WENT.
HERE GOES THE FIRST CALL.

SC GO AHEAD, ROGER. WE'RE IN ABOUT 150
YARDS (GARBLE) RANDOM DIRECTION.

CAPCOM ROGER, UNDERSTAND.

SC (GARBLE)

CAPCOM WE HAVE GOT SOME POOR COMM THIS TIME,
WALT. WE WILL STAND BY A LITTLE BIT UNTIL WE GET IN A
LITTLE CLOSER.

SC (GARBLE) STATION KEEPING

CAPCOM ROGER, WE COPY STATION KEEPING.

CAPCOM APOLLO 7, HOUSTON. HOW DO YOU READ

NOW?

SC LOUD AND CLEAR, JACK. GO AHEAD.

CAPCOM OKAY, YOU ARE REAL FINE NOW WALT, WE
HAVE JUST SWITCHED IN.

SC OKAY, THIS IS DONN. EVERYTHING WAS
PRETTY NORMAL AS FAR AS THE SOLUTIONS WERE CONCERNED. WE
HAD A DSKY SOLUTION OF 3.6 TO THE MIDCOURSE, AND WALLY HAD
A 1.7 SOLUTION ON HIS CHARTS. WE SPLIT THE DIFFERENCE AND
TOOK 2 FEET PER SECOND AFT AND THAT SLID US RIGHT IN THERE.
EXCEPT FOR A LITTLE BIT OF CROSS PLANE CORRECTION THAT
WALLY HAD TO MAKE AT THE TAIL END, WE WERE NORMAL RIGHT
UP THE PIPES. ACCORDING TO NOUN 40'S ESTIMATES OF FUEL
HERE, WE USED 76 FEET PER SECOND, HOWEVER, NOUN 40 INTE-
GRATES VELOCITY EVEN WHEN YOU ARE NOT THRUSTING, SO I THINK
WE USED SOMEWHAT LESS THAN THAT, PROBABLY ONLY 60 TO 65
FEET PER SECOND.

CAPCOM ROGER, COPY THAT.

SC ROGER. PCM HIGH DATA, WE HAD A LOSS
OF CONTACT WITH THE S-IVB JUST PRIOR TO TPI AND IN THE
CONFUSION HERE, I DIDN'T GET HIGH BIT RATE DATA, THE TPI
BURN. WE HAD HIGH BIT RATE DATA IN THE MIDCOURSE BURN
AND FINAL RCS THRUSTING ON IN.

CAPCOM OKAY, COPY THAT. WALT, I HAVE YOUR
SEPARATION PAD WHENEVER YOU ARE READY TO COPY THAT.

SC WAIT ONE.

CAPCOM APOLLO 7, HOUSTON. HOW CLOSE ARE YOU
NOW?

SC PRETTY CLOSE, ABOUT 70 FEET, IT'S
TUMBLING RATHER WILDLY, SO WE ARE JUST GOING TO HAVE TO
STAY AWAY FROM IT.

CAPCOM ROGER, UNDERSTAND.

SC READY TO COPY.

CAPCOM OKAY, SEPARATION TASK 03020 ALL BALLS.

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 295910

130/2

CAPCOM NOUN 82, NA 1618 + 122100.02030847,
NOUN 48 NA_0 + 05. SEXTANT TRIANGLE NA, NOUN 34 NA, NOUN
43 NA 359310000, REMARKS: IT WILL BE A POSIGRADE BURN,
BEF, HEADS DOWN USING -X THRUSTERS, THE BURN WILL TAKE
PLACE IN FRONT OF THE BOOSTER.

SC THE SLA PANEL ON THE OPPOSITE SIDE OF
ONE LARGE SPHERE STICKING OUT OF THE ENGINE. IT DOES NOT
HAVE A FLASHING LIGHT. THE OTHERS ARE WORKING FINE.

CAPCOM ROGER, COPY.

SC WHAT WERE THE MINUTES ON THE GETI? I
MISSED THE MINUTES.

CAPCOM OKAY. MINUTES ON GETI 20.

SC ROGER. READ THAT FINE - YOU'RE A LITTLE
GARBLED AT TIMES. CHECK CLOSE, SET BURNS 0302000001618 PLUS

122100.02030847005. ALL THE WAY DOWN TO ROLL, PITCH AND YAW
359310000. OVER.

CAPCOM ROG, THAT'S CORRECT. DID YOU COPY THE
REMARKS?

SC ROGER. POSSIBLY BEF HEADS DOWN MINUS
X-THRUSTERS FOR THE POWER BOOSTER.

CAPCOM ROGER. AND WALT, ON YOUR CHARGING OF
BATTERY A -

SC SAY AGAIN.

CAPCOM ON CHARGING BATTERY A, WE'D LIKE YOU NOT
TO STOP CHARGING -

SC SAY AGAIN, JACK.

CAPCOM APOLLO 7, YOU READ HOUSTON.

SC ROGER. I READ YOU. HOW ME?

CAPCOM YOU'RE FINE. FIRE.

SC WHAT WAS YOUR LAST QUESTION AFTER MY
LAST READBACK?

CAPCOM WE DO NOT WANT YOU TO DISCONTINUE CHARGING
BATTERY A AT POINT 6 X. WE'LL GIVE YOU A CUTOFF CHARGE.

SC ROGER. I'LL PROBABLY BE ALL RIGHT.

CAPCOM YOU'LL CONTINUE CHARGING. WE'LL GIVE YOU
A CUTOFF TIME.

SC I'LL BE STANDING BY FOR YOUR CUTOFF LATER.

CAPCOM ROGER.

END OF TAPE

CAPCOM APOLLO 7 HOUSTON
SC GO AHEAD, HOUSTON
CAPCOM ALL RIGHT, WE FEEL YOU'RE AT THE END OF
YOUR TAPE ON YOUR DSC, IF YOU CONCUR, WE'LL TAKE COMMAND
AND WE'LL DUMP IT AND YOU CAN GO BACK TO YOUR NORMAL SWITCH
CONFIGURATION.

SC ROGER, WE CONCUR
CAPCOM OKAY, WE'RE GONNA DUMP.
SC HOUSTON, APOLLO 7
CAPCOM GO AHEAD, SEVEN
SC IT'S A REAL NICE SETUP ON THE GROUND
YOUR SOLUTION TO THAT WAS PRETTY CLOSE, YOU DID A REAL GOOD
JOB.

CAPCOM YOU ALL DID A REAL FINE JOB, TOO.
SC SAME HERE.
CAPCOM THAT'S WHAT WE CALL TEAM WORK.
SC ROGER, THAT'S A FACT.
CAPCOM HEY, APOLLO 7
SC ALL SAYS GO
CAP COM APOLLO, GO

END OF TAPE

PAO THIS IS APOLLO CONTROL HOUSTON, 30 HOURS, 20 MINUTES INTO THE FLIGHT. AND ONLY A FEW MINUTES AGO, WE WERE WITHIN CONTACT BY THE TEXAS STATION WITH APOLLO 7 FLIGHT CREW OPERATIONS DIRECTOR DEKE SLAYTON. HE HAD A CONVERSATION WITH THE CREW REGARDING - HE CONGRATULATED THEM ON THE PERFORMANCE OF THE RENDEZVOUS TODAY AND HE ALSO DISCUSSED THE FUTURE USE OF THE TELEVISION CAMERA. HERE IS THE RECORDING OF THAT CONVERSATION.

CAPCOM APOLLO 7, OPPOSITE OMNI.
 CAPCOM APOLLO 7; CAPCOM.
 SC WHAT YOU SAY THERE.
 CAPCOM CONGRATULATIONS ON A GOOD JOB UP THERE.
 SC THANK YOU; WE'RE (GARBLE) TODAY.
 CAPCOM YEAH, LISTEN; WE NEED A COMMITMENT ON
 REV 45 IN SOME RELATIVE TO TV FROM HERE WALT.
 SC ROGER; WE GOT ALL OF THAT. WE WERE AWFULLY
 BUSY UP HERE AND BEHIND ON THE (GARBLE) AND WE HAD TO CUT YOU
 OFF.
 CAPCOM ROGER. OKAY. AND YOU ARE OKAY FROM 45
 ON, IS THAT CORRECT?
 SC THAT'S AFFIRMATIVE.
 CAPCOM OKAY, FINE, THANK YOU.
 SC REAL JOB BUT WE DID THEM ALL WITHIN THE
 PERIOD AND THE RANGE REALLY CAME UP BEAUTIFUL TODAY.
 CAPCOM ROGER. OKAY, HAVE FUN. WE WILL SEE YOU
 LATER.
 SC OKAY, THANK YOU.
 CAPCOM APOLLO 7, HOUSTON. YOU ARE 1 MINUTE LOS
 TEXAS; WE WILL PICK YOU UP AT TANANARIVE IN 34 MINUTES.
 SC READY TO GO.
 CAPCOM ROGER.
 SC I KNOW IT WILL TAKE A LONG TIME FOR YOU
 TO DUMP THAT TAPE; GIVE US A CALL IF THIS (GARBLE)
 CAPCOM OKAY, 7, IT'S GONNA TAKE A LITTLE WHILE
 TO GET THE TAPE DUMPED - LET US KNOW WHEN IT IS READY AND
 WE'LL TELL YOU WHEN YOU CAN USE IT AGAIN.

PAO THIS IS APOLLO 7 HOUSTON, 30 HOURS, 22 MINUTES INTO THE FLIGHT; THAT LAST CONVERSATION PRIMARILY BETWEEN DON SLAYTON AND WALLY SCHIRRA. IN THE COURSE OF IT, IF YOU FOLLOWED IT, THE APOLLO 7 CREW COMMANDER AGREED AND COMMITTED TO THE USE OF THE TELEVISION CAMERA FROM REV 45 ON AS PER FLIGHT PLAN. EARLIER IN THE DAY THERE HAD BEEN SOME DISCUSSION IT WAS SCRUBBED AS AN EVENT LEADING UP TO THE RENDEZVOUS WHICH WAS CARRIED OUT MOST SUCCESSFULLY IN THE LAST FEW REVS AND WE WILL NOT ATTEMPT ANY TELEVISION TOMORROW BECAUSE OF THE SLEEP CYCLE. WE ARE NEXT SCHEDULED FOR THAT EXPERIMENT ON REV 45 WHICH WILL BE MONDAY MORNING. AT 30 HOURS AND 23 MINUTES INTO THE FLIGHT, THIS IS APOLLO CONTROL HOUSTON.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 305245 133/1

PAO THIS IS APOLLO CONTROL 30 HOURS 52 MINUTES. APOLLO 7 IS NEARING ACQUISITION AT TANANARIVE. WE WILL MONITOR THROUGH THAT PASS.

CAPCOM APOLLO 7, HOUSTON THROUGH TANANARIVE.

SC ... ROGER.

CAPCOM ROGER, YOUR VOICE IS PRETTY GOOD THIS TIME. BETWEEN YOUR CHOW THERE, I HAVE GOT A BLOCK DATA NUMBER 4 TO GIVE YOU.

SC (GARBLED)

CAPCOM SAY AGAIN. YOU ARE READY TO COPY?

SC GO AHEAD.

CAPCOM ROGER. ZERO TWO ONE DASH FOUR ALPHA. PLUS TWO SIX ZERO MINUS ONE SIX THREE THREE ZERO THREE TWO PLUS FIVE THREE PLUS FOUR TWO FOUR NINE THREE THREE ZERO TWO TWO DASH THREE BRAVO PLUS THREE ONE SEVEN PLUS ONE THREE EIGHT EIGHT ZERO THREE FOUR PLUS ONE THREE PLUS FIVE FOUR FOUR FIVE TWO THREE ZERO TWO THREE DASH THREE ALPHA PLUS TWO NINE FIVE PLUS ONE THREE EIGHT FIVE ZERO THREE FIVE PLUS FOUR NINE PLUS TWO SEVEN FOUR SEVEN SEVEN FIVE ZERO TWO FOUR DASH THREE BRAVO PLUS TWO THREE THREE PLUS ONE THREE FIVE SIX ZERO THREE SEVEN PLUS TWO FOUR PLUS TWO EIGHT FIVE ZERO ONE THREE ZERO TWO FIVE DASH ALPHA CHARLIE MINUS ZERO TWO ONE. WAIT ONE, SKIPPED GET ZERO THREE EIGHT PLUS ONE FOUR PLUS ONE ONE FOUR THREE FOUR TWO. (PAUSE) APOLLO 7, HOUSTON. ON YOUR LONGITUDE FOR AREA 25 ALPHA CHARLIE.

SC IN 25 ALPHA CHARLIE, I GOT LAT MINUS ZERO TWO ONE AND NO LONGITUDE.

CAPCOM ROGER. LONGITUDE MINUS ZERO ONE EIGHT ZERO. AREA ZERO TWO SIX DASH ALPHA CHARLIE PLUS ZERO NINE ZERO MINUS ZERO TWO FOUR ZERO ZERO THREE NINE PLUS FOUR NINE PLUS TWO SEVEN FOUR ONE FIVE NINE. HOUSTON OVER.

SC ROGER. HOUSTON ZERO TWO ONE DASH FOUR ALPHA PLUS TWO SIX ZERO MINUS ONE SIX THREE THREE ZERO TWO TWO (GARBLED) FOUR NINE THREE THREE ZERO TWO TWO DASH THREE BRAVO AND I DIDN'T GET PLUS OR MINUS ON THIS. THREE ONE SEVEN PLUS ONE THREE EIGHT EIGHT (GARBLED) PLUS ONE THREE (GARBLED) FOUR FIVE TWO THREE.

CAPCOM ROGER. YOUR LATITUDE IS (GARBLED)

SC TWO THREE DASH THREE ALPHA PLUS TWO NINE FIVE PLUS ONE THREE EIGHT FIVE TWO ZERO FIVE PLUS FOUR NINE PLUS TWO SEVEN PLUS SEVEN SEVEN FIVE THREE ZERO TWO FOUR DASH THREE CHARLIE (GARBLED) PLUS ONE THREE FIVE SIX FOUR FIVE SEVEN SEVEN (GARBLED) THREE ZERO TWO FIVE DASH ALPHA CHARLIE MINUS ZERO TWO ONE MINUS ZERO ONE EIGHT (GARBLED) ONE ONE (GARBLED) ALPHA CHARLIE PLUS FOUR NINE ZERO MINUS ZERO (GARBLED) PLUS FOUR NINE PLUS THREE SEVEN (GARBLED) OVER.

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 305245 133/2

CAPCOM ROGER, YOUR LATITUDE ON AREA 22 THREE
BRAVO IS APPROXIMATELY ONE SEVEN.
SC EVERYTHING LOOKS GOOD.
CAPCOM EVERYTHING UP CORRECT. JUST ABOUT LOS
THERE, WALLY. YOU AND DONN, WE WOULD LIKE TO HAVE YOU DO
SOME TROUBLESHOOTING ON THE BIOMED HARNESS THERE WHEN YOU
GET A CHANCE AND MAYBE WE CAN PICK IT UP OVER MERCURY.
SC ROGER, (GARBLED)
CAPCOM ROGER.
SC (GARBLE) AROUND. TANANARIVE I WOULD LIKE TO
HEAR HOW MUCH RCS PROPELLANT WE HAVE LEFT ...
CAPCOM AFFIRMATIVE. GO.
SC ...THRUSTERS?
CAPCOM APOLLO 7, HOUSTON.
PAO WE HAVE LOS AT TANANARIVE. THIS IS
APOLLO CONTROL 31 HOURS 1 MINUTE.

END OF TAPE

PAO THIS IS APOLLO CONTROL 31 HOURS 41 MINUTES INTO THE MISSION. APOLLO 7 IS WITHIN RANGE OF THE TRACKING SHIP HUNTSVILLE NOW. WE HAVE TAPE OF THE PASSES AT THE MERCURY AND THE HAWAII STATION PRIOR TO THIS. WE'LL START WITH THE TAPE AT MERCURY AND PLAY CATCHUP.

CAPCOM APOLLO 7, HOUSTON. APOLLO 7, HOUSTON, I HAVE A FLIGHT PLAN UPDATE.

SC ROGER. LATE ONE? SHOULD WE ALSO USE THE FLIGHT PLAN OR USE THE LOG BOOK?

CAPCOM SAY AGAIN, WALT.

SC DID YOU PLAN TO USE THE FLIGHT PLAN OR USE THE LOG BOOK?

CAPCOM NO, IT'S JUST ONE LINE. THAT TIME 3330, THE FUEL PUMP PURGE OF THE 02 ONLY.

SC CHECK THE 02 ONLY OF THE FUEL PUMP PURGE IT HAS TO BE CHECKED AT A SPECIFIED TIME. RIGHT?

CAPCOM ROGER. IT'S AT THE SAME TIME, 3330.

SC IT'S DULY NOTED. A ROUNDUP TO DATE ON OUR WINDOW STATUS, THE CENTER HATCH WINDOW NOW IS PRETTY BADLY BLURRED ON THE USEFUL AREA TO DETECT THE HORIZON.

CAPCOM ROGER HERE. YOU SAY IT'S HARD TO DETECT THE HORIZON?

SC I SAY THAT IT IS JUST BARELY USABLE FOR DETECTING THE HORIZON BUT WALT SAYS THERE IS NOTHING TO IT. IT WOULD BE USABLE FOR BACK ANGLES AND THAT'S ABOUT ALL.

CAPCOM ROGER.

SC MY LEFT WINDOW, WHAT I CALL MY NUMBER 1 WINDOW.

CAPCOM ROGER.

SC IS NOW DEVELOPING THE FILM ON THE INNER SURFACE OF THE OUTER PANE. ALTHOUGH IT'S NOT TOO BAD AT THIS POINT, BUT I WOULD NOT SHOOT PICTURES THROUGH IT.

CAPCOM ROGER, COPY.

SC I'LL GO ON AROUND THE COCKPIT, THE NUMBER 2 WINDOW, THE ONE WE USE TO RENDEZVOUS IS EAUTIFUL. IT IS INTERESTING TO NOTE SMALL HAIRS LIKE A FUZZ AROUND THE PARAMETER OF ALL THE WINDOWS THAT APPARENTLY JUST DEVELOPED AS A SORT OF BELT. IT'S AOUT THREE-QUARTERS OF AN INCH TO AN INCH LONG.

CAPCOM ROGER. IS THAT ON ALL WINDOWS OR JUST THE -

SC THAT'S ON ALL WINDOWS AND NOW I'M ON NUMBER 4 WINDOW. IT DOES HAVE THE SAME DUST AND IT'S GETTING A LITTLE BIT CLOUDY BUT ONLY AROUND THE PERIMETER ON THE UPPER RIGHT CORNER. AS YOU THINK OF THE UPPER AND LOWER (GARBLE).

SC IT LOOKS LIKE THE NUMBER 4 WINDOW MAY HAVE CLEARED OUT AFTER A FEW MORE DAYS.

CAPCOM ROGER. LOOKS LIKE NUMBER 4 WINDOW MAY
HAVE CLEARED OUT AFTER 3 OR 4 MORE DAYS, HUH?
SC ROGER. NUMBER 5 I HAD SWAB IT NOW -
IT HAS A SLIGHT FILM ON THE INNER SURFACE. UNDERSTAND,
FILING FOR IFR.

CAPCOM YEAH, SOUNDS LIKE IT.
SC ACTUALLY, WE'LL KEEP YOU UPDATED ON THIS
AND WE'LL DISCUSS WHERE WE'RE GOING.

CAPCOM ROGER.
SC AFFIRMATIVE. THE TARGET WAS VISUALLY
FIXED DURING THE FINAL STAGE OF BRAKING ABOUT MIDWAY BETWEEN
REGULUS AND SIRIUS ON THE LINE DRAWN BETWEEN THE TWO STARS.

CAPCOM HAVE YOU, COPY.
SC AND IT'S A VERY TRAUMATIC EXPERIENCE.
CAPCOM SOUNDS LIKE IT WAS A GOOD ONE.

SC WE ARRANGED FOR AN UPDATE AND SWITCHED
OUR CHANNELS ON AWHILE AGO TO GET A HACK ON OUR FUEL
REMAINING. JUST AN ACADEMIC THEORY.

CAPCOM ALL SET.
SC THE PASS ON AND THEN YOU GET FIXED FOR
SUBSEQUENT SPACECRAFT. ON CHANNEL 352, THE QD IS UP TO THE
WASTE WATER SERVICING VALVE. THAT QD, AFTER IT'S INSTALLED,
PROVIDES INTERFERENCE WITH STORAGE AREA D8 SUCH THAT D8
CANNOT BE OPENED AND GOTTEN INTO WITHOUT TAKING DOWN THE
QD AGAIN.

CAPCOM ROGER.
SC THERE'S SOMETHING I THINK WE OUGHT TO
MAKE NOTE OF, RON. THE LIGHTWEIGHT HEADSETS ARE PREFERABLE
TO THE COMM CARRIERS DUE TO THE COMFORT OF NOT HAVING ANYTHING
ON YOUR HEAD BUT THE PLUGS IN OUR EARS. WE'RE USING THE
PLASTIC PLUGS RATHER THAN THE RUBBER TYPE NIPPLES.

CAPCOM YOU'RE USING YOUR OWN MOLDED PLASTIC
PLUGS, RIGHT?

SC THAT'S AFFIRM.
CAPCOM FROM OUR CALCULATIONS ON THE RCS FUEL
DOWN THERE, IT LOOKS LIKE IT WAS PRETTY MUCH NOMINAL. WE
USED THE NOMINAL PLUS A PORTION OF THE RESERVE. WE'RE ABOUT
RIGHT ON, WE'RE STANDING BY FOR A FURTHER TEMPERATURE
STABILIZATION TO GET A MORE ACCURATE PICTURE OF IT.

SC ROGER.
CAPCOM ON YOUR TAPE RECORDER, AS YOU KNOW, WE'VE
RECORDED A LOT OF HIGH BIT RATE AND NOT TOO MANY PLACES TO
DUMP IT. IT'S GOING TO TAKE ABOUT 3 REVS. SO YOU'LL HAVE
NO VOICE RECORDING ON YOUR TAPE RECORDER FOR AWHILE. WE'LL
LET YOU KNOW WHEN IT'S AVAILABLE FOR USE AGAIN.

SC ROGER.
CAPCOM WALLY, WE'D LIKE TO GET AN INDICATION OF
HOW YOU'RE FEELING UP THERE AND IF THE ACTIVITY DID YOU ANY
GOOD. APOLLO 7, HOUSTON. ABOUT 1 MINUTE TO LOS GUAM.

SC ROGER. I DIDN'T GIVE AN ANSWER ON THE
 ACTIFED OR ASPIRIN. CUTOFF.
 CAPCOM ROGER, I NEED TO GET AN IDEA OF HOW YOU
 FEEL THEN IF THE ACTIFED WAS WORKING. DO YOU HAVE ANY
 FURTHER SYMPTOMS?
 SC MY MUCOUS IS MUCH THICKER AND SINCE I
 PROBABLY SHOULD CONTINUE ON ACTIFED AND USE ASPIRIN WHEN I'M
 NOT SLEEPING.
 CAPCOM APOLLO 7, HOUSTON THROUGH HAWAII.
 SC ROGER, WE'RE RECORDING YOU ON (GARBLE)
 CAPCOM SAY AGAIN.
 SC ROGER, WE'RE RECORDING YOU ON (GARBLE)
 CAPCOM UNDERSTAND.
 SC GO AHEAD, WE'RE STANDING BY.
 CAPCOM WALL, WE'RE JUST A LITTLE CURIOUS IF YOU
 HAVE HAD ANY INDICATIONS OF A FEVER AT ALL?
 SC MY TEMPERATURE IS NORMAL AND IT JUST
 APPEARS THAT THE NASAL PASSAGE IS VERY FULL. I HAVEN'T BEEN
 COUGHING - THERE'S NOTHING IN THE LUNGS.
 CAPCOM ROGER.
 SC (GARBLE) DRY IT UP IF I COULD AND A DECONGESTANT
 IS MY BEST BET.
 CAPCOM WALLY, WE WOULD LIKE FOR YOU TO GO
 AHEAD AND STAY ON THE ACTIFED AND CONTINUE WITH THE ASPIRIN
 THEN.
 SC ROGER. WHAT'S THE FREQUENCY OF (GARBLE)
 CAPCOM STANDBY.
 SC SAY AGAIN.
 CAPCOM THE ACTIFED ONCE EVERY 8 HOURS.
 SC ROGER.
 CAPCOM WALLY, ASPIRIN CAN BE AS OFTEN AS 2 EVERY
 4 HOURS IF DESIRED.
 SC ROGER. THANK YOU FOR YOUR HELP. I'LL
 FOLLOW THAT SCHEDULE TIL WE LAND, WE RUN OUT OR I FEEL BETTER.
 CAPCOM PRETTY HARD TO READ THAT TIME, WALL.
 SC ROGER. I'LL FOLLOW THAT SCHEDULE UNTIL
 WE LAND, RUN OUT OR FEEL BETTER.
 CAPCOM ROGER. CONCUR.
 HTV HUNTSVILLE LOS.
 CAPCOM APOLLO 7, HOUSTON. ONE MINUTE TO LOS
 AND THEN WE'LL PICK YOU UP TANANARIVE AT 32 PLUS 27.
 SC ROGER. THAT'S 32 PLUS 27?
 CAPCOM THAT IS AFFIRMATIVE.
 PAO APOLLO CONTROL, 31 HOURS 50 MINUTES. THE
 NEXT STATION TO ACQUIRE THE SPACECRAFT WILL BE TANANARIVE AT
 32 HOURS 27 MINUTES.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 322700 135/1

PAO THIS IS APOLLO CONTROL AT 32 HOURS, 27 MINUTES. APOLLO 7 IS IN IT'S 21ST REVOLUTION COMING UP NOW ON THE TANANARIVE TRACKING STATION. WE'LL LISTEN IN THROUGH THIS PASS.

CAPCOM APOLLO 7, HOUSTON. ROGER. APOLLO 7, HOUSTON. APOLLO 7, HOUSTON?

SC APOLLO HERE; GO AHEAD.

CAPCOM ROGER. WE REQUEST YOU TERMINATE BATTERY A CHARGING AT .4 AMP.

SC ROGER; .4, OVER.

CAPCOM ROGER; WE SHOWED .47 AMP AT GUAYMAS, REQUEST ONBOARD REOUT THIS TIME.

SC (GARBLE) WE MIGHT CHECK ON MY TELEMETRY NOW.

CAPCOM THAT'S NEGATIVE TELEMETRY ON THAT, TANANARIVE.

SC ROGER; WE THOUGHT THE (GARBLE) PULL BACK ON (GARBLE) AT TANANARIVE ADDITION. WE'LL (GARBLE) FOR THAT PASS AND MISS ENTIRELY.

CAPCOM ROGER. WE SHOULD BE ABLE TO GET SOME THING ON THE MERCURY AT ABOUT 32 PLUS 50.

SC FAILED TO GET YOUR ANSWER; WE'RE OVER THE HILL.

CAPCOM SAY AGAIN.

SC APOLLO IS (GARBLE) ABOUT .5 AMP.

CAPCOM ROGER; COPY .5. APOLLO 7, HOUSTON. YOU MIGHT BE ADVISED THAT OUR LAST CHECK ON THE VOICE QUALITY AT THE DSC IS STILL VERY GOOD.

SC HEARD. HOUSTON; APOLLO 7.

CAPCOM HOUSTON, GO.

CAPCOM HOUSTON, GO.

SC ROGER; WE HAVE STARTED OUR EPS REDUNDANT COMPONENT CHECK ABOUT 5 MINUTES AGO AND OUR PRODUCT (GARBLE) PRESSURE 2, THE AC PRIOR TO SETTING (GARBLE) HERE IS OFF AND AT THAT TIME I HAD HALF AMP (GARBLE) AND (GARBLE) AND RESET (GARBLE)

CAPCOM ROGER; UNDERSTAND. WILL YOU TURN THE COMPRESSOR 1 OFF, YOU ALSO HAD A MAIN BUS A AND B UNDERVOLTAGE AND IT READ OKAY.

SC AFFIRMATIVE.

SC (GARBLE) POWER BREAKING. I HAD 2 ON AT (GARBLE)

CAPCOM SAY AGAIN, WALT.

SC COPY.

CAPCOM NEGATIVE ON SCHIRRA'S STATEMENT.

SC ADD 21 AT ONCE AND UP ON THE MAIN PUMP A AND MAIN BUS B (GARBLE) READING 27 AND A HALF VOLTS ON THE (GARBLE) PUMP.

CAPCOM ROGER; UNDERSTAND.

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 322700 135/2

SC AND WHERE IS THE NEXT PLACE WHERE I'LL BE ALE TO TURN MY (GARBLE) A AND B?

CAPCOM ROGER. WE SHOULD GET THAT AT MERCURY, WE PICK THEM UP AT 32 PLUS 50.

SC ROGER, THANK YOU.

PAO LOS AT TANANARIVE NOW. THE TRACKING SHIP MERCURY WILL ACQUIRE AT 32 HOURS, 50 MINUTES. THIS IS APOLLO CONTROL AT 32 HOURS, 36 MINUTES.

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 325030 136/1

PAO THIS IS APOLLO CONTROL, 32 HOURS, 50
MINUTES INTO THE MISSION. APOLLO 7 IS ABOUT TO ACQUIRE AT
THE MERCURY TRACKING SHIP.

SC HOUSTON, APOLO 7; HOW DO YOU READ?
CAPCOM APOLLO 7,

RESENDING THIS PAGE - AGAIN

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 325030 136/1

PAO THIS IS APOLLO CONTROL, 32 HOURS, 50
MINUTES INTO THE MISSION. APOLLO 7 IS ABOUT TO ACQUIRE AT
THE MERCURY TRACKING SHIP.

SC HOUSTON, APOLLO 7; HOW DO YOU READ?
CAPCOM APOLLO 7, HOUSTON. LOUD AND CLEAR.
SC DID YOU GET SOMEBODY STANDING BY; WE
WOULD LIKE TO CHECK OUR MAIN OXYGEN RATE.
CAPCOM ROGER, GO. WE'RE RECEIVING THE DATA.
SC OKAY.
CAPCOM STAND BY; WE JUST LOST DATA.
SC STAND BY; DID YOU GET THAT ONE?
CAPCOM THE DATA IS BACK IN; CONTINUE.
SC MAIN FLIGHT B IS OUT CLOSED.
CAPCOM OKAY, WE'RE READING 10 - 10.
SC ROGER; WE ARE READING 102.
CAPCOM THAT IS AFFIRMATIVE; 102.
SC (GARBLE) NOW IS BACK ON. PUMP A IS OUT
(GARBLE)
CAPCOM APOLLO 7, HOUSTON.
SC STANDING BY FOR YOUR READING ON THE OTHER
VALVE.
CAPCOM ROGER, WE ARE READING 105.
SC SAYING 105, THANK YOU. AGAIN BACK ON.
CAPCOM ROGER.
SC ARE YOU READING (GARBLE) AT (GARBLE) NOW?
CAPCOM APOLLO 7, HOUSTON; AFFIRMATIVE. IT LOOKS
GOOD NOW. WE'LL WORK ON DONN WHEN HE WAKES UP.
SC EXERCISING RIGHT NOW.
SC VERY GOOD.
CAPCOM THE CDR EXERCING YOU SAY?
SC ALL EXERCISING. I THINK YOU OUGHT TO
PASS THAT ON TO PETE.
CAPCOM I'LL CALL HIM ON THE PHONE. APOLLO 7,
HOUSTON; NUMBER ONE SURGEON CERTAINLY APPRECIATES YOUR EFFORTS
THERE.
SC ROGER; THE LEAD IS QUITE (GARBLE)
CAPCOM ROGER; WE UNDERSTAND.
SC (GARBLE) THIS IS APOLLO 7, THE ECS RE-
DUNDANT COMPONENT CHECK IS COMPLETE; WE DID NOT FLOW SECOND-
ARY RADIATORS.
CAPCOM ROGER, UNDERSTAND DID NOT CLOSE SECONDARY
RADIATORS.
SC ALSO WONDER IF HOW LONG WE WANT TO GO
WITH THE PRELIMINARY BOILER WITHOUT TRYING IT AND POSSIBLY
RESERVICING IT.
CAPCOM ROGER; LOOKS LIKE RIGHT NOW WE'RE GOING
TO WORK ON THAT MAYBE THE NEXT SHIFT; I DON'T KNOW. OR
TOMORROW. YOU HAVE 1 MINUTE TO LOS; BE ADVISED TURN UP YOUR
S BAND VOLUME AT 33 PLUS 09. WE WILL HAVE A S BAND PASS OVER

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 325030 136/2

HAWAII.

SC 33 PLUS 09. (GARBLE) GO. AGREED TO DO
THE BPF?

CAPCOM I'M GETTING AN UPDATE ON THE TIME AND
I'LL PASS IT UP LATER.

SC ROGER; WHAT IS THE TIME FOR THE NEXT TV
PASS AND TURN ON S BAND VOLUME THERE WOULD BE A LOCK ON, ON
THE LIGHT.

CAPCOM ROGER. CONCUR.
PAO THIS IS APOLLO CONTROL. MERCURY HAS LOS
NOW. HAWAII WILL ACQUIRE AT 33 - 8. WE'RE ATTEMPTING TO
GET THE HEART RATES ON WALLY SCHIRRA DURING THAT EXERCISE.
IF YOU WILL STAND BY, WE'LL COME UP WITH THOSE IN JUST A
MINUTE.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 325030 137/1

PAO - THIS IS APOLLO CONTROL 33 HOURS 4 MINUTES
INTO THE MISSION. FLIGHT SURGEON JOHN ZEIGLSCHMID REPORTS
THAT WALLY SCHIRRA WAS ALREADY EXERCISING AS THEY CAME INTO
THE PASS AND HE STARTED MONITORING WITH RATES OF 88 AND THOSE RATES
CLIMBED RIGHT UP TO 96 AS HE CONTINUED TO USE THE INFLIGHT
EXERCISER. HE REPORTS CAPTAIN SCHIRRA'S NORMAL BASE HEART
RATES AT 65 TO 75. AT 33 HOURS 5 MINUTES THIS IS MISSION
CONTROL.

END OF TAPE

PAO THIS IS APOLLO CONTROL 33 HOURS 8 MIN-
UTES AND THE HAWAII STATION IS ABOUT TO ACQUIRE APOLLO 7.
TRACKING SHIP HUNTSVILLE HAS A SLIGHT BIT OF OVERLAPPING
COVERAGE ON THIS PASS. WE WILL STAND BY NOW.
CAPCOM APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.
~~SC~~ ROGER. AM I CLEAR, UNDERSTAND?
CAPCOM HEY, SOUNDS BEAUTIFUL.
SC REALLY DOES. WOULD YOU GIVE US ASCENDING
NODE UPDATE? CHART UPDATE?
CAPCOM ROGER. STAND BY. I DON'T HAVE ONE
RIGHT NOW. GIVE YOU ONE SHORTLY.
SC NO RUSH.
CAPCOM AND BE ADVISED ON THE TV USAGE ABOUT
71 PLUS FOUR ZERO.
SC OKAY.
CAPCOM APOLLO 7, HOUSTON. HERE IS YOUR LITTLE
UPDATE.
SC GO AHEAD HOUSTON.
CAPCOM ROGER. REV 21, GET IS THREE TWO PLUS
FOUR ZERO PLUS ZERO NINE. LONGITUDE SEVEN SEVEN POINT ONE
EAST RIGHT ASCENSION ZERO SIX ONE EIGHT.
SC ROGER, WE HAVE THAT. THANK YOU.
CAPCOM ROGER.
(PAUSE)
CAPCOM APOLLO 7, HOUSTON. (PAUSE) APOLLO 7,
HOUSTON. WE WILL HAVE A HANDOVER TO HUNTSVILLE AT 33 PLUS
16 SO STANDBY FOR F-BAND VOLUME DECREASE SLIGHTLY BEFORE
THAT.
HAW HAWAII HERE, APOLLO 7.
SC HOUSTON, APOLLO 7.
CAPCOM HOUSTON, GO. WALLY, DID YOU COPY THAT
33 16 WE WILL SWITCH TO HUNTSVILLE? AND THAT BAND WILL
BREAK LOCK--
SC HOUSTON, APOLLO 7.
CAPCOM HOUSTON. DO YOU - (GARBLED). I WANT TO
KNOW CAN YOU GIVE ME A VHF? APOLLO 7, HOUSTON.
SC HOUSTON, APOLLO 7.
CAPCOM APOLLO 7, HOUSTON.
(GARBLED)
CAPCOM APOLLO 7, HOUSTON.
SC COME IN HUNTSVILLE.
CAPCOM ROGER, WE ARE BACK IN VHF AGAIN. COMMENCE
YOUR LAST (GARBLE) ON S-BAND.
SC ROGER, WE HAVE HAD LSC BACK ON ...
CAPCOM ROGER, WE CONFIRM.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 331830 139/1

PAO APOLLO 7, HOUSTON, 1 MINUTE LOS, TANAN-
ARIVE AT 34 + 03. THE HUNTSVILLE HAS LOS NOW. THIS
TWENTY FIRST REVOLUTION IS TOO FAR EAST FOR THE REDSTONE
TO ACQUIRE APOLLO 7. SO WE WILL E OUT OF RANGE OF ANY
TRACKING STATIONS - THAT IS APOLLO 7 COMES DOWN ACROSS THE
SOUTH PACIFIC, SOUTH AMERICA, AND THE SOUTH ATLANTIC OCEAN.
AND THE NEXT STATION TO ACQUIRE WILL BE TANANARIVE AT
34 HOURS, 3 MINUTES. AT 33 HOURS, 21 MINUTES, THIS IS
APOLLO CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 340300 140/1

PAO THIS IS APOLLO CONTROL 34 HOURS 3 MINUTES
AND APOLLO 7 COMING UP ON TANANARIVE STATION. CAPCOM
RON EVANS PLANS TO JUST PUT IN A CALL AND TELLING THEM WE
WILL STANDBY THROUGH THE PASS. WE DON'T INTEND TO INITIATE
ANY COMMUNICATION HERE, BUT WE WILL STAND BY TO MONITOR
ANYTHING THE FLIGHTCREW MIGHT CARE TO COMMUNICATE TO US.

CAPCOM APOLLO 7, HOUSTON. TANANARIVE STANDING
BY.

PAO WE ARE GETTING SO MUCH CROSSTALK AND
NOISE HERE THAT WILL PUNCH OFF AND COME BACK UP IF THERE IS
ANY COMMUNICATION ON THIS PASS.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET 340640

141/1

CAP COM GO.
SC ROGER. WE HAVE THE (GARBLE) METER READOUTS
FOR YOU IF YOU'VE GOT TIME TO TAKE THEM.

CAP COM ROGER, WE HAVE ONE MINUTE TO LOS.
SC FORGET IT.

CAP COM ROGER. WE'LL CHECK YOU ON MERCURY AT
34 + 25.

PAO THIS IS APOLLO CONTROL, 34 HOURS 8 MIN-
UTES. THERE WILL BE NO MORE COMMUNICATION AT TANANARIVE.
WE'LL PICK UP THE MERCURY AT 34 HOURS 25 MINUTES. AT THIS
TIME WE ARE PLANNING A CHANGE OF SHIFTS IN THE CONTROL CENTER
BETWEEN 23:00 AND 23:30 P.M. CENTRAL DAYLIGHT TIME WHICH
WOULD PLACE THE NEWS CONFERENCE WITH FLIGHT DIRECTOR GENE
KLANZ BETWEEN 23:00 AND 24:00 CENTRAL DAYLIGHT TIME. APOLLO
CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 342550 142/1

PAO THIS IS APOLLO CONTROL 34 HOURS 25 MIN-
UTES INTO THE FLIGHT. APOLLO 7 HAS JUST BEEN ACQUIRED AT
THE MERCURY TRACKING SHIP. THERE IS A CALL NOW.
CAPCOM APOLLO 7, HOUSTON. OPPOSITE OMNI.
SC ROGER. HEY, RON, WOULD YOU IDENTIFY
(GARLE) FOR US PLEASE. (GARBLE) SERIAL NUMBER 102 IS THE NUMBER ON
THE OTHER SIDE. SUGAR EASY BAKER THREE THREE'S ONE ZERO
ZERO ZERO FIVE ZERO DASH TWO OH SIX. OVER.
CAPCOM ROGER. WHAT WAS YOUR REQUEST ON THIS?
SC WANT YOU TO VERIFY IF THAT IS THE 2A
FILTER. THE FILTER THAT IS CALLED OUT AS 2A IN OUR DOCUMENTA-
TION. THAT IS THE ONLY LAELING ON THIS FILTER.
CAPCOM ROGER. A FILTER YOU SAY?
SC A FILTER FOR THE 70MM HASSELBLAD. OVER.
CAPCOM ROGER, COPY NOW. WALT, WE WOULD LIKE
SOME ONBOARD READINGS. YOUR BATTERY CHARGER CURRENT. AND
THE SERVICE MODULE RCS PROPELLANT QUANTITIES.
SC BATTERY CURRENT IS STILL READING POINT
FIVE AMP AND I WOULD LIKE TO KNOW WHAT YOU HAVE ON IT AND I
WILL READ YOU THE ONBOARD QUANTITIES IN THE SERVICE MODULE
RCS PROPELLANT. QUAD A IS SHOWING 58 PERCENT. QUAD B IS
STILL AT 93 PERCENT WHERE WE LAUNCHED AT. QUAD C IS 65 PER-
CENT. QUAD D IS SHOWING ABOUT 68 PERCENT. OVER.
CAPCOM ROGER, WE COPY AND WE ARE READING POINT
FOUR THREE ON THE BATTERY CHARGER CURRENT.
SC ROGER, I WILL CONTINUE CHARGING AND I
AM STILL READING POINT FIVE DOWN THE LINE AND YOU CAN GIVE
ME A CALL WHEN THEY CEASE CHARGING.
CAPCOM ROGER, WILL DO. (PAUSE) APOLLO 7,
HOUSTON. DO YOU WANT YOUR TEMPERATURE CORRECTED ONBOARD
READOUT? FOR THE RCS?
SC (GARBLE)
CAPCOM ROGER. ALPHA FIVE SIX DISREGARD BRAVO
CHARLIE SIX ONE AND DELTA IS SIX FOUR.
SC FIVE SIX SIX ONE SIX FOUR. I HAVE ALL
THE SERVICE TEST METER READOUTS. ARE YOU INTERESTED IN ANY OF
THEM IN PARTICULAR. I HAVE THEM LOGGED IN THE FLIGHT PLAN.
I WILL GIVE YOU THE RCS ANYWAY. THAT IS FIVE C AND D
AND SIX A C AND D ALL FIVE MODES EXCEPT 60 C AND 64.6.
CAPCOM ROGER, WE COPY AND WE LIKE THE BATTERY
PRESSURE IF YOU HAVE IT AVAILABLE. AND WHILE S-BAND VOLUME
UP AT THREE FOUR PLUS FOUR FOUR.
SC POINT FOUR VOLTS AND IT SEEMS TO BE IN
A STANDARD POSITION. WE CHECKED IT BEFORE WE MADE THAT
URINE DUMP AND GOES RIGHT DOWN TO POINT 6 VOLTS AND (GARBLE)
RIGHT BACK UP TO ONE POINT FOUR.

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 342550 142/2

CAPCOM ROGER.
PAO THIS IS APOLLO CONTROL. WE HAVE LOS
AT THE MERCURY NOW. HAWAII WILL ACQUIRE AT 34 HOURS 43 MIN-
UTES. AT 34 HOURS 33 MINUTES THIS IS MISSION CONTROL
HOUSTON.

END OF TAPE

PAO THIS IS APOLLO CONTROL AT 34 HOURS 43 MINUTES. APOLLO 7 COMING UP ON HAWAII NOW ON IT'S 22ND REVOLUTION. THE HAWAII STATION HAS JUST ACQUIRED. WE'LL STAND BY AND WAIT FOR A CALL.

CAP COM APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.

SC APOLLO 7, LOUD AND CLEAR.

CAP COM ROGER. LOUD AND CLEAR YOU'RE COMING DOWN DOWN VOICE BACKUP NOW.

SC ROGER.

CAP COM AH, WALLY, WE'D LIKE TO SELECT (GARLE) AT YOUR CONVENIENCE JUST TO UPDATE THE ...

SC (GARBLED)

CAP COM APOLLO 7, AFFIRMATIVE.

SC ROGER. (GARBLED)

CAP COM SAY AGAIN. A LITTLE GARBLED THAT TIME.

SC WE'D LIKE TO GIVE YOU AN UPDATE. WE'D LIKE TO PUT THE SEXTANT CALIBRATION TEST WHEN WE CALL FOR 36 HOURS AND 30 MINUTES INTO DONN EISELE'S WAKE PERIOD.

CAP COM ROGER, SEXTANT CALIBRATION TEST. WE'LL SEE IF WE CAN'T MOVE THAT INTO DONN'S WAKE PERIOD.

SC THANK YOU.

CAP COM APOLLO 7, HOUSTON. WE'RE STILL LOOKING ON THAT DASH 206 TO DETERMINE WHICH ONE IT IS.

SC ROGER. ITS SHOWING RED, IT'S NOT GREEN.

WE'RE HOPING IT'S 2A.

CAP COM ROGER.

SC CLEAR FOIL FILTER. (GARBLED) SHOWED ON US BEFORE WE LAUNCHED.

PAO THIS IS APOLLO CONTROL. WE'VE GOT AOUT A MINUTE TO LOS. IT SEEMS DOUBTFUL WE'LL HAVE ANYMORE TRANSMISSIONS ON THIS PASS. WE'LL COME BACK UP IF WE DO.

CAP COM ONE MINUTE TO LOS. WE'RE GETTING A LOT OF STATIC ON THE GROUND DOWN HERE. I WAS JUST WONDERING IF YOU'RE GETTING IT.

SC SAY AGAIN.

CAP COM AH, YOU'RE --

SC GO AHEAD. ROGER, WOULD YOU SAY AGAIN?

CAP COM ROGER. WE'RE RECEIVING A LOT OF STATIC ON THE GROUND. ARE YOU RECEIVING ANY AT ALL?

SC NEGATIVE.

CAP COM ROGER.

PAO LOS AT HAWAII NOW. THE TRACKING SHIP REDSTONE IN THE SOUTH PACIFIC WILL PICK UP THE SPACECRAFT AT 34 HOURS 59 MINUTES. THIS IS MISSION CONTROL HOUSTON AT 34 HOURS 51 MINUTES.

END OF TAPE

APOLLO 7 MISSION COMMENTARY 10/12/68 GET: 345920 MC144/1

PAO THIS IS APOLLO CONTROL, 34 HOURS, 59
MINUTES, APOLLO 7 COMING WITHIN RANGE OF REDSTONE NOW.

CAPCOM APOLLO 7 HOUSTON - APOLLO - APOLLO 7
HOUSTON

SC THIS IS APOLLO 7, ARE YOU READY?
CAPCOM ROGER, THE DASH 206 FILTER IS THE TWO
ALPHA FILTER, AND IT SHOULD BE CLEAR, HOPEFULLY.

SC HOUSTON, SAY IT AGAIN
CAPCOM ROGER, THE DASH 206 FILTER IS THE TWO
ALPHA 2A FILTER.

SC ROGER, THANK YOU. I HAVE A QUESTION ON
A POOL OF WATER, WE ARE SCHEDULED TO COORDINATE AT THIS
TIME AND WE HAVE A COMPLETELY FULL TANK. THIS TANK HAS BEEN
FULL FOR SOME TIME, RON, AND IT CAME UP SEVERAL MONTHS BACK,
THERE IS A QUESTION AS TO HOW MUCH ULLAGE VOLUME YOU HAVE TO
HAVE ATOP THAT TANK BEFORE CHLORINATE. I'M KIND OF UNCLEAR
ABOUT THE FACT THAT THE CHLORINATION THAT WE PUT IN YESTERDAY
IS PROBABLY STILL IN THAT TANK.

CAPCOM ROGER, WE'LL ATTACK THE PROBLEM AND GET
THE WORD TO YOU SHORTLY HERE.

SC OKAY, CAPCOM WILL YOU TELL THEM THAT WE
WILL WAIT TILL YOU GET AN ANSWER.

CAPCOM (GARLE) I UNDERSTAND I TOLD YOU TO ANSWER.

CAPCOM CAPCOM TO FLIGHT - APOLLO 7 HOUSTON, WE
ARE READING .41 ON THE BATTERY CHARGER AND YOU CAN TERMINATE
CHARGING THAT BATTERY.

SC UNDERSTAND, STOP CHARGING .41 AMP.

CAPCOM AFFIRMATIVE

SC I AM STILL READING .5 ON BOARD

SC HOUSTON, APOLLO 7, OVER

CAPCOM HOUSTON, OVER - GO AHEAD WALT.

SC ROGER, I SHOW THAT WE'VE PROBABLY BEEN
CHARGING BATTERY A NOW FOR ABOUT 7 HOURS, IS THAT CONSISTENT
WITH PUTTING ALL THE ENERGY BACK THAT WE TOOK OUT TO REBOOST
AND BOTH THE BURNS, OVER.

CAPCOM WALT, WE'VE TOOK OUT 9.3 AND LOOKS LIKE
WE PUT IN AOUT 4.5 HOURS.

PAO THIS IS APOLLO CONTROL, REDSTONE HAS
LOSS OF SIGNAL NOW. WATER CHLORINATION IS THE ONLY TASK
SPELLED OUT IN THE FLIGHT PLAN FOR THE NEXT HOUR; SINCE WE
DIDN'T GET AN ANSWER BACK UP TO THEM, I SUSPECT THAT THEY
WONT DO ANYTHING AOUT IT TILL WE GET TO ASCENSION. WE
ESTIMATE ACQUISITION AT ASCENSION AT 35 HOURS, 26 MINUTES,
AT 35 HOURS, 6 MINUTES. THIS IS MISSION CONTROL HOUSTON

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 11/12/68, GET: 352630

145/1

PAO THIS IS APOLLO CONTROL 35 HOURS 26 MINUTES
INTO THE MISSION. APOLLO 7 COMING UP ASCENSION NOW IN A
LOW ELEVATION PASS UT WE MAY BE ALE TO GET TWO TO THREE
MINUTES OF ACQUISITION HERE WE'LL STAND BY.

PAO THIS IS APOLLO CONTROL AT 35 HOURS
29 MINUTES. WE WENT BY ASCENSION WITHOUT ATTEMPTING TO
COMMUNICATE WITH THE SPACECRAFT ON THIS LOW ELEVATION PASS.
NEXT STATION TO ACQUIRE WILL BE THE TRACKING SHIP MERCURY.
ACQUISITION THERE AT 36 HOURS.

END OF TAPE

PAO THIS IS APOLLO CONTROL AT 36 HOURS INTO THE MISSION. APOLLO 7 COMING UP ON THE TRACKING SHIP MERCURY NOW. THE STATION AT GUAM HAS OVERLAPPING COVERAGE SO WE'LL HAVE A FAIRLY LONG PASS HERE. WE HAVE ACQUISITION AT THE MERCURY AND WE'LL STAND BY FOR SOME COMMUNICATION.

CAP COM APOLLO 7, HOUSTON.
 SC ROGER HOUSTON.
 CAP COM ROGER, WE'D LIKE TO SEND A P-27 UPDATE
 REQUEST ACCEPT AND I HAVE A NAV CHECK TO GIVE YOU.

SC CHECK.
 CAP COM NAV CHECK 036 15 4 BALLS + 1875 + 16885
 1271. READ BACK.

SC ROGER UNDERSTAND 615 4 BALLS + 1875
 16885 1271 OVER.
 CAP COM ROGER. I DIDN'T GET YOUR READBACK ON
 THE HOURS. 036 HOURS 15 MINUTES.

SC ROGER
 CAP COM APOLLO 7, HOUSTON. I'VE GOT SOME UPDATE
 FOR YOU ON THE RCS CALCULATED QUANTITIES AND YOUR PROFILE
 FROM BATTERY STATUS IF YOU WANT TO COPY.

SC DID YOU READ OUR READBACK ON THE NAV
 CHECK OKAY? (GARLE) FOR YOUR INFO ON THE RCS QUANTITY AND WHAT
 UPDATE.

CAP COM ROGER. THIS WILL BE AN UPDATE ON FIG-
 URE 3-1 ON YOUR RCS PROFILE AT 36 HOURS YOU HAVE 820 POUNDS.

SC ROGER. 36 HOURS 820 POUNDS.
 CAP COM AND YOUR RCS GROUND CALCULATED QUANTITIES
 ARE IN ORDER 56 PERCENT 63 PERCENT 47 PERCENT 63 PERCENT.

SC ROGER. I READ 56, 63, 47, 63 AND THE
 TOTAL QUANTITY AGAIN 83.

CAP COM ROGER, YOUR TOTAL QUANTITY IS 820 POUNDS.
 APOLLO 7, HOUSTON. APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.
 APOLLO 7, HOUSTON. APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.
 GUAM M&O, HOUSTON CAP COM, ARE WE GETTING OUT TO YOU?

COMM YOU READ. HEY, GUAM, YOU READ?
 GWM ROGER, UNDERSTAND (TOO FAINT)

CAP COM APOLLO 7, HOUSTON.
 SC APOLLO 7 GO AHEAD.
 CAP COM ROGER, READING YOU WEAK. THE COMPUTER

IS YOURS.
 SC (TOO FAINT)

CAP COM SAY AGAIN, WALT.
 SC ROGER, AT 36 HOURS INTO THE FLIGHT WHAT
 NUMBER DO I GO ON MY CHART?

CAP COM ROGER, YOU GO IN 820 POUNDS, 820 POUNDS.
 SC (CUT OUT)

END OF TAPE

-7 MISSION COMMENTARY, 10/12/68, GET: 361100

147/1

CAPCOM ROGER. YOU ARE GOING IN 820 POUNDS,
820 POUNDS. EIGHT HUNDRED AND TWENTY POUNDS AND I
SC COPIED 561607 AND 56634763.
CAPCOM ALL RIGHT, ROGER. HOW'S THAT AGAIN?
56634763. RIGHT, THANK YOU.
SC AND YOUR BATTERY STATUS?
CAPCOM SAY AGAIN.
SC YOUR BATTERY STATUS, AMPERE HOURS.
CAPCOM ROGER.
SP ABOUT ~~A35.2~~, 30.4, C39.5.
CAPCOM THIS IS APOLLO CONTROL. GUAM HAS LOS
PAO NOW. VERY - BAD COMMUNICATION THROUGH THOSE PASSES. RED-
STONE WILL ACQUIRE AT 36 HOURS, 32 MINUTES. WE WILL NOT
PICK UP THE HAW STATION ON THIS PASS. WE ARE STILL ESTIMAT-
ING A SHIP CHANGE HERE IN THE CONTROL CENTER AT - APPROXI-
MATELY 11 TO 11:30 CENTRAL DAYLIGHT TIME WHICH WOULD PUT
THE NEWS CONFERENCE FROM STARTING BETWEEN 11:30 AND MIDNIGHT.
AT 36 HOURS, 12 MINUTES, THIS IS MISSION CONTROL, HOUSTON.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 363230 148/1

PAO THIS IS APOLLO CONTROL 36 HOURS 32 MINUTES INTO THE MISSION. WE ARE ABOUT TO ACQUIRE AT THE REDSTONE. THE SEXTANT CALIBRATION TEST THAT WAS SCHEDULED FOR THIS TIME AND THAT WALLY SCHIRRA ASKED TO BE POSTPONED UNTIL THE COMMAND MODULE PILOT, DONN EISELE IS AWAKE, WILL BE POSTPONED LOOKING NOW AT ABOUT 42 HOURS AND A HALF INTO THE MISSION. ESTIMATED TIME WHEN THE SEXTANT CALIBRATION TEST WILL PROBABLY BE PERFORMED. REDSTONE HAS ACQUIRED. THERE HASN'T BEEN A CALL UP TO THE SPACECRAFT YET, BUT WE WILL STAND BY FOR THAT.

CAPCOM APOLLO 7, HOUSTON.

SC GO AHEAD.

CAPCOM ROGER. DID YOU COPY BATTERY STATUS LAST PASS?

SC STAND BY. ROGER I HAD 35 POINT SIX 30 POINT FOUR I THINK IT WAS AND 39 SOMETHING RON. IT LOOKS TO ME LIKE WE DIDN'T FILL UP BATTERY A AGAIN AND IS ANYBODY GETTING CONSIDERATION TO DO A SECOND RECHARGE ON THAT BATTERY SOME OTHER TIME OF THE FLIGHT?

CAPCOM WELL, THAT IS A POSSIBILITY. WE WANTED TO CUT IT OFF AT THE POINT FOUR LIMIT THOUGH TO - SO WE WOULDN'T GET INTO OVERCHARGE TYPE OF PROBLEM WE WERE TALKING ABOUT BEFORE LAUNCH. AND WE ARE WORKING ON IT NOW AND WE CAN'T REALLY COME UP WITH AN ANSWER AT THE PRESENT TIME. WE ARE WORKING ON IT AND WILL LET YOU KNOW. AND WALL, I HAVE A LIMA SIERRA UPDATE FOR YOU.

CAPCOM (PAUSE) APOLLO 7, HOUSTON.

SC GO AHEAD, HOUSTON.

CAPCOM ROGER. I HAVE A LIMA SIERRA UPDATE.

SC STILL VERY WEAK.

CAPCOM ROGER, LIMA SIERRA UPDATE.

SC GO AHEAD.

CAPCOM ROGER, LIMA SIERRA ZERO SEVEN FOUR FLASH ZERO FIVE ONE.

SC ROGER, ZERO SEVEN FOUR FLASH ZERO FIVE ONE.

CAPCOM SEVEN, HOUSTON, 1 MINUTE UNTIL LOS. BE ADVISED AIR FORCE 26, NAVY 20.

SC ROGER.

CAPCOM SORRY ABOUT THAT.

SC WELCOME TO THE CLUB.

PAO THIS IS APOLLO CONTROL 36 HOURS 41 MINUTES. REDSTONE HAS LOS NOW. AS YOU HEARD, THEY PASSED UP THE BAD NEWS ON THE FOOTBALL GAME TO NAVAL ACADEMY GRADUATES, WALLY SCHIRRA AND DONN EISELE. AIR FORCE 26, NAVY 20. THIS IS MISSION CONTROL 36 HOURS 41 MINUTES.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 365900

149/1

PAO THIS IS APOLLO CONTROL, 36 HOURS 59 MIN-
UTES INTO THE MISSION. ASCENSION HAS JUST ACQUIRED APOLLO 7.
CAP COM 7, HOUSTON. APOLLO 7, HOUSTON. APOLLO 7
HOUSTON.

SC GO AHEAD.

CAP COM ROGER, ON THE WATER CORRELATION, WITHDRAW
ABOUT 8 OUNCES OF WATER THEN CORRELATE.

SC (GARBLED)

CAP COM ROGER. I HAVE A FLIGHT PLAN UPDATE.
READY TO COPY?

SC (GARBLED)

CAP COM ROGER, FLIGHT PLAN UPDATE 38 + 40
DELETE NCC UPDATE. 39 + 40 DO OPTION 3 VICE OPTION 2
40 + 10. CANCEL RENDEZVOUS NAV AT 8 -- 80 NAUTICAL MILES
41 + 00 WASTE WATER DUMP 42 + 35 SEXTANT CALIBRATION PREV-
IOUSLY SCHEDULED AT 36 + 35. OVER.

SC ROGER. OVER.

PAO THIS IS APOLLO CONTROL, 37 HOURS 3 MIN-
UTES. THIS WATER CORRELATION WAS ACCOMPLISHED BY INJECTING
AN AMPULE OF CHLORINE INTO THE WATER TANK WITH A SYRINGE-
LIKE DEVICE. IT'S ABOUT AN OUNCE OF CHLORINE. WE'RE IN A
PROCESS OF CHANGING OVER THE SHIFT NOW AND THE SHIFT HEADED
BY JERRY GRIFFIN WILL BE UP VERY SHORTLY.

END OF TAPE

PAO THIS IS APOLLO CONTROL 37 HOURS 33 MINUTES INTO THE MISSION. WE ARE COMING UP NOW WITH A PASS IN THE MERCURY TRACKING SHIP. WE DID HAVE SOME FURTHER COMMUNICATION AFTER THE CHANGE OF SHIFT HERE ON THE ASCENSION PASS BETWEEN MCC AND APOLLO 7. WE WILL PLAY AND THEN GO LIVE INTO THE POSSIBLE COMMUNICATIONS BETWEEN MERCURY TRACKING SHIP AND THE SPACECRAFT.

CAPCOM APOLLO 7, HOUSTON. S-BAND VOLUME UP AT THREE SEVEN PLUS THREE SIX.

SC ...

CAPCOM APOLLO 7, CAPCOM.

SC GO AHEAD.

CAPCOM WE WANTED TO KNOW HOW YOU FELT ABOUT SHUFFLING THIS SLEEP CYCLE AROUND A LITTLE BIT. KIND OF LOOKS TO ME AT LEAST AND SPEAK UP IF YOU DON'T LIKE THE SOUND OF IT, BUT WE HAVE GOT A HELL OF A LOT LOST MOTION HERE WHEN YOU MIGHT BETTER BE GETTING A LITTLE REST.

SC WE ARE GETTING KIND OF POOPED AND I THINK THAT IS WHY WE STARTED OFF THE WAY WE DID TODAY. ...

CAPCOM YOU ARE VERY GARBLED. NOT ALE TO READ YOU.

SC ROGER. DONN IS SLEEPING NOW AND HE NEEDED THE SLEEP MORE THAN WE DID.

CAPCOM ROGER, UNDERSTAND THAT. I GUESS THE QUESTION I AM ASKING IS WHETHER YOU HAVE GOT ANY ALLERGY AT ALL THAT ALL THREE OF YOU KNOCKING IT OFF FOR A WHILE.

SC LET'S GO ANOTHER DAY WITH IT AND ...

CAPCOM OKAY, WE ONLY HAVE ABOUT 30 SECONDS LEFT IN THIS PASS. WHY DON'T YOU THINK ABOUT IT AND TOM OR RON WILL TALK TO YOU ABOUT OVER GUAYMAS.

SC ROGER.

MER THIS IS MERCURY.

CAPCOM APOLLO 7, HOUSTON.

SC WHAT DO YOU SAY HERE, TOM?

CAPCOM ROGER, WALLY. REAL GOOD RENDEZVOUS YOU PULLED OFF TODAY.

SC ...YEAH, THAT'S A LITTLE MORE DRAMATIC THAN THE OTHER BIRD WE USE TO FLY.

CAPCOM UNDERSTAND. ...DISCUSS FREE FLIGHT.. PERIOD OF TIME ABOUT LOOKING AHEAD IN THE FLIGHT PLAN. ABOUT THE POSSIBILITY OF YOU ALL GOING ALL THREE CREWMEN ON THE SLEEP CYCLE. I JUST WANT TO DISCUSS IT FOR DOWN THE LINE - WHAT DEKE WAS TRYING TO SAY - WHAT DO YOU THINK ABOUT IT?

SC I DON'T THINK I WOULD BE AFRAID TO DO IT ON ANOTHER FLIGHT MANEUVER, KIND OF RELUCTANT RIGHT NOW.

CAPCOM OKAY.

SC THE MACHINE IS WORKING REAL WELL, TOM.
CAPCOM (GARBLED)..BLOCK DOWN ABOUT 40 HOURS
AND ALSO WASTE WATER DUMP AT 41 AND KIND OF QUIET TIME AFTER
THAT FOR ANOTHER 4 OUR 5 HOURS.
SC VERY GOOD. ...IS NO PROBLEM AT ALL. IN
FACT, IT IS AN ASSET.
CAPCOM OKAY.
SC FOR ALL OF THOSE WORRIED ABOUT THE SPACE-
CRAFT PICKING UP MOTIONS FROM THE CREW, NO SUCH THING. WE
CAN KNOCK AROUND THE CABIN LIKE MAD. YOU GET TO BE QUITE A
GYMNAST.
CAPCOM I WANT TO ASK YOU A QUESTION. HOW ARE
THE SLEEP BAGS WORKING OUT?
SC NOT SO HOT.
CAPCOM OKAY.
SC YOU MISS THE ONE G LYING DOWN. WITH THE
SEAT BELTS RESISTING YOU ARE HELD DOWN AND YOU FEEL BETTER
CONTROLLED AND BETTER CONTAINED, I GUESS. SLEEPING BAG, YOU
TRY TO FIND A PLACE TO STICK YOUR HEAD OR YOUR ARM TO HOLD
ON.
CAPCOM OUR ANALYSIS IS THE COUCH IS PROBABLY
A LITTLE BETTER THAN THE SLEEP BAG.
SC THAT IS CORRECT.
CAPCOM OKAY.
SC WE FIND THE LIGHTWEIGHT HEADSETS ARE
PREFERRABLE TO COMM CARRIERS TOO.
CAPCOM RIGHT, REVIEWED THE FLIGHT PLAN HERE
UNDERSTAND WHEN YOU WENT TO THE LIGHTWEIGHT HEADSETS.
SC YEAH, THE CABLES FOR THE COMM CARRIER
IS VERY OBJECTIONABLE AND JAMS YOU IN THE NECK AND THE
SHOULDER AND KEEPS PULLING YOUR HAIR OUT.
CAPCOM ALL RIGHT.
SC WE ARE NOT AT ALL HUNGRY BY THE WAY. WE
ARE TRYING TO GET SOME EXERCISE TO KEEP OURSELVES GOING. THAT
EXERGENIES ARE A HECK OF A GOOD DEAL.
CAPCOM WORKS OUT REAL GOOD IN ZERO G.
SC HATE TO ADMIT THAT, BUT IT IS PROBABLY
ONE OF THE BEST SPACIES THINGS WE HAVE HAD IN YEARS.
CAPCOM OKAY. OKAY, ON THE SLEEP THING, WALLY,
IT IS STRICTLY YOUR OPTION, O3IOUSLY. WE JUST GOT TO
THINKING MAYBE IT WILL WORK OUT BETTER, GIVE YOU A LITTLE
MORE, LONGER SESSIONS OF IT.
SC HOUSTON CAPCOM.
CAPCOM GO AHEAD.
SC WE DON'T THINK WE OUGHT TO SINK HASSELBLAD
HERE, WE MAY BE ABLE TO TAKE ONE A LITTLE LATER.

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET 373300

150/3

CAPCOM ROGER, UNDERSTAND ABOUT THE CAMERA.
SC HEY, TOM, I WOULD LIKE TO LOG SOME
PHOTOGRAPHS HERE ON MAGAZINE PU, STARTING THE SAME...
STARTED SHOOTING AOUT OVER THE RED SEA AND WE ARE CONTINUING
THE SAME 12 RIGHT NOW.
CAPCOM OKAY, WE WILL RECORD IN AND WE HAVE IT
WALT, THANK YOU.
SC WHEN ARE WE GOING TO GET OUR TAPE
RECORDERS BACK. I SEE IT IS IN MOTION NOW. WILL WE EVER
FINISH DUMPING ALL THE TAPES ON THE RENDEZVOUS RUN.
CAPCOM NOT YET WALT, WE ARE STILL DUMPING.
SC OKAY, WE WOULD LIKE TO GET A GO AS SOON
AS WE GET THAT THROUGH.
CAPCOM ROGER. WE WILL LET YOU KNOW AS SOON AS
IT IS FINISHED.

END OF TAPE

SC HOUSTON, APOLLO 7, OVER.
CAP COM GO AHEAD 7, HOUSTON. HOUSTON, APOLLO 7
APOLLO 7, HOUSTON, WE GO.

SC HOUSTON, APOLLO 7, OVER.
CAP COM ROGER. APOLLO 7, THIS IS HOUSTON. GO
AHEAD.

SC ROGER, TOM. DO YOU KNOW IF THEY EVER
GOT THE VOICE DUMP RIGHT AFTER AH, THE EAST END WE PUT OUR
COM IN FOR ON ABOUT THE TAPE AND I'M NOT SURE IF THEY
DUMPED (GARBLED).

CAP COM APOLLO 7. WE'LL CHECK ON IT.
SC THANKS TOM.
CAP COM APOLLO 7, HOUSTON. WILL YOU GIVE US
OPPOSITE OMNI? APOLLO 7, HOUSTON WILL YOU GIVE US OPPOSITE
OMNI? (FROM BACKGROUND SOMEONE SAID - WE GOT HIM)

SC I HEARD THE BOYS IN THE BACKROOM, YOU
GOT IT NOW.

CAP COM ROGER. APOLLO 7, HOUSTON IT'S TAKING
QUITE A WHILE TO GET ALL THE DE-VOICED DATA PLAYED BACK
WALT AND WE WON'T REALLY KNOW FOR QUITE A WHILE. IS THERE
ANY PARTICULAR GET ON THE VOICE YOU WANT US TO CHECK.

SC ROGER. I KNOW WE REWOUND THE TAPE AT
THE CANARIES, I THINK IT WAS. I'M HOPING WE (GARBLE)
SOMETIME THERE AOUT 20 MINUTES I THINK WE PUT OUR DESCRIP-
TION OF (GARBLE) BY THE TAPE AND SOMEPLACE THE FIRST HOUR (GARBLE)

CAP COM APOLLO 7, HOUSTON.

SC GO AHEAD.

CAP COM ROGER, (GARBLE) FIRST MADE ... FROM LIFTOFF
UNTIL CANARIES AND BECAUSE OF REWIND AND EVERYTHING WE DO
NOT HAVE THAT ON VOICE.

SC OKAY, WHEN WE GET THE TAPE BACK, WE'LL
PROBABLY TRY TO PUT SOME ON IT.

CAP COM OKAY. APOLLO 7, HOUSTON. WE ARE AOUT,
AH, WE'RE CLOSE TO LOS AND YOU GONNA HAVE THE TAPE BACK,
WE'RE JUST ABOUT FINISHED ALL THE RENDEZVOUS DUMP.

SC ROGER. THANK YOU. WE'VE JUST FINISHED
CHLORINATING THE WATER ...

CAP COM ROGER.

PAO THIS IS APOLLO CONTROL 37 HOURS 49 MIN-
UTES INTO THE MISSION OF APOLLO 7. DURING THIS LAST PASS
WHICH WAS RATHER A LONG PASS INCLUDING THE MERCURY TRACKING
SHIP AND GUAM. WE HEARD THE CREW COMPLIMENTED FOR A GOOD
RENDEZVOUS TODAY. SPACECRAFT COMMANDER SHIRRA IS RELUCTANT
TO CHANGE THE SLEEP CYCLE, THAT IS FOR ALL THREE TO SLEEP
AT THE SAME TIME. THEY INDICATED THAT THE SLEEPING BAGS
WERE NOT WORKING OUT TOO WELL AND THAT THE SEAT BELT IN THE
SEAT WORKS BETTER THAN THE SLEEPING MODE OR RATHER IN THE
COUCHES THAN THE SLEEPING BAGS. THE LIGHTWEIGHT HEAD SETS

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 374300

151/2

PAO ARE BETTER THAN THE COM CARRIER BECAUSE THE CABLE JERKS THEIR HEADS AROUND. THEY INDICATED A POSSIBLE PROBLEM WITH THE HASSELBLAD CAMERA AND JUST INDICATED BEFORE LOS THAT THEY HAVE FINISHED CHLORINATING THE WATER ONBOARD. THE NEXT CONTACT WILL BE WITH REDSTONE TRACKING SHIP. THAT WILL COME AT ABOUT 38 HOURS 47 MINUTES INTO THE MISSION. AT 37:51, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 380700

152/1

PAO THIS IS APOLLO CONTROL 38 HOURS 7 MINUTES INTO THE MISSION. THE SPACECRAFT COMMANDER AND THE LM PILOT ARE NOW IN AN EATING PERIOD. THE COMMAND MODULE PILOT IS IN A SLEEP PERIOD. WE SHOULD HAVE CONTACT WITH THE REDSTONE TRACKING SHIP VERY SHORTLY NOW - IN 1 OR 2 SECONDS. THERE'S NOTHING SCHEDULED IN THE FLIGHT PLAN FOR CONTACT BUT LET'S STAND BY.

CAPCOM APOLLO 7, THIS IS HOUSTON. WE HAVE ACQUISITION ON REDSTONE.

CAPCOM APOLLO 7, HOUSTON. OPPOSITE OMNI PLEASE.

CAPCOM APOLLO 7, HOUSTON. WOULD YOU GIVE US THE OPPOSITE OMNI NOW?

SC ROGER. THAT'S BACK WHERE WE STARTED. IS THAT WHERE YOU WANT?

CAPCOM YEAH, YOU SWITCHED AOUT THE SAME TIME WE SAID TO SWITCH SO -

SC (LEVEL TOO WEAK TO READ)

CAPCOM APOLLO 7, HOUSTON. HAVE 1 MINUTE TO LOS AT REDSTONE.

SC ROGER.

PAO THIS IS APOLLO CONTROL, 38 HOURS 16 MINUTES INTO THE MISSION OF APOLLO 7. WE HAVE LOSS OF SIGNAL AT REDSTONE TRACKING SHIP. THE NEXT CONTACT WILL BE AT ASCENSION ISLAND 38 HOURS 33 MINUTES INTO THE MISSION. THIS IS APOLLO CONTROL.

END OF TAPE

PAO THIS IS APOLLO CONTROL 39 HOURS 7 MINUTES INTO THE MISSION OF APOLLO 7. WE ARE IN THE 25TH REVOLUTION COMING UP ON ACQUISITION WITH MERCURY TRACKING SHIP. 39 HOURS 10 MINUTES. WE HAVE A TAPE OF THE LAST PASS OVER ASCENSION WHICH WE WILL PLAY FIRST AND THEN WE WILL GO RIGHT INTO THE LIVE STANDBY ON THE MERCURY TRACKING SHIP. SO WE WILL NOW PLAY THE TAPE OF THE ASCENSION PASS.

CAPCOM APOLLO 7, HOUSTON THROUGH ASCENSION.

SC

CAPCOM ROGER, READ YOU AOUT FOUR BY WALLY.

SC ...

CAPCOM APOLLO 7, HOUSTON, YOU ARE COMING GARBLED. SAY AGAIN.

CAPCOM APOLLO 7, HOUSTON. SAY AGAIN, PLEASE.

ROGER OUT. APOLLO 7, HOUSTON.

SC GO AHEAD.

CAPCOM ROGER, NOW READING YOU LOUD AND CLEAR, WALLY. YOU HAPPEN TO BE IN AN ATTITUDE AND YOU HAVE THE CAMERA AVAILABLE, HERE IS A GOOD AREA THAT WE HAVEN'T HAD MANY PICTURES IN. IT IS 38 56 30. THE UPPER END OF THE PERSIAN GULF DOWN AND TO THE RIGHT. DO YOU HAVE SOME TIME AND CAMERA, IS FINE, IF NOT NO PROBLEM.

SC ROGER, SAY AGAIN THE TARGET.

CAPCOM ROGER. THE UPPER END OF THE PERSIAN GULF. IT WILL OCCUR IN 38 56 30.

SC

CAPCOM OKAY.

SC HOUSTON...

CAPCOM GO AHEAD.

SC ...NIGHT AIR GLOW 240 DEGREES ...ALL ALMOST ALL OVER THE HORIZON AS WE SWEEP LOW. ..

CAPCOM OKAY, YOU SAY ALL AROUND THE HORIZON? WALLY.

SC ...SKY.

CAPCOM ROGER.

SC ...SIRIUS CAME UP ..

CAPCOM OKAY.

CAPCOM HELLO APOLLO 7, HOUSTON. JUST LOOKING AT THE DSKY, ARE YOU PITCHED DOWN FROM ABOUT 90 DEGREES?

SC THAT IS AFFIRM. CAMERA ALL READY.

CAPCOM WELL, WE HAVE ABOUT 1 MINUTE UNTIL LOS WITH ASCENSION, WALLY AND WE WILL CATCH YOU NEXT TIME OVER THE PACIFIC.

CAPCOM APOLLO 7, HOUSTON.

SC THIS IS APOLLO 7. HOW DO YOU READ?

APOLLO 7 MISSION COMMENTARY, 10/12/68, GET: 390700

153/2

CAPCOM

APOLLO 7, HOUSTON.

SC

...

CAPCOM

I HAD A BLOCK UPDATE BUT I WILL GIVE IT TO YOU OVER GUAM IN A FEW MINUTES. AOUT 5 MINUTES.

I AM READING YOU AOUT THREE BY THREE.

SC

THAT IS A BLOCK UPDATE OVER GUAM.

CAPCOM

APOLLO 7, HOUSTON.

END OF TAPE

CAPCOM APOLLO 7, HOUSTON. (PAUSE) APOLLO 7,
 HOUSTON. (PAUSE) APOLLO 7, HOUSTON. (PAUSE) APOLLO 7,
 HOUSTON. (PAUSE) APOLLO 7, HOUSTON.
 SC ROGER, HOUSTON. APOLLO 7. GO.
 CAPCOM TO COPY? ROGER, I HAVE BLOCK DATA. ARE YOU READY
 SC STAND BY ONE. ... STAND BY.
 CAPCOM ARE YOU READY?
 SC OKAY, GO AHEAD. I GOT IT NOW.
 CAPCOM ROGER. ZERO TWO SEVEN DASH TWO BRAVO
 PLUS TWO ZERO SIX MINUS ZERO TWO FIVE FOUR ZERO FOUR ONE TWO
 SIX ONE THREE FOUR ONE ZERO FOUR ZERO TWO EIGHT DASH TWO
 RAVO PLUS TWO SEVEN SEVEN MINUS ZERO TWO EIGHT EIGHT ZERO
 FOUR THREE ZERO TWO ZERO FIVE FOUR ONE NINE THREE ZERO TWO
 NINE DASH ONE BRAVO PLUS TWO FOUR ZERO MINUS ZERO SIX THREE
 THREE ZERO FOUR FOUR TWO SEVEN FIVE TWO FOUR ONE TWO EIGHT
 ZERO THREE ZERO DASH ONE ALPHA PLUS TWO NINE SEVEN MINUS ZERO
 SIX SIX TWO ZERO FOUR SIX ZERO THREE THREE FOUR FOUR TWO FOUR
 SIX ZERO THREE ONE DASH ONE BRAVO PLUS THREE ONE SEVEN MINUS
 ZERO SIX SIX TWO ZERO FOUR SEVEN THREE NINE TWO NINE FOUR
 FOUR THREE ZERO ZERO THREE TWO DASH ONE ALPHA PLUS TWO NINE
 ONE MINUS ZERO SIX SIX TWO ZERO FOUR NINE ONE FIVE ZERO NINE
 FOUR SIX FIVE ZERO COMING UP ON LOS.
 SC ROGER, UNDERSTAND. I READ BACK LATER THEN.
 CAPCOM ROGER, THANK YOU.
 PAO THIS IS APOLLO CONTROL 39 HOURS 23 MIN-
 UTES INTO THE MISSION OF THE APOLLO 7. WE HAVE JUST HAD QUITE
 A LONG PASS THROUGH THE MERCURY TRACKING SHIP AND GUAM. THE
 NEXT CONTACT WITH THE REDSTONE TRACKING SHIP AT 39 HOURS
 42 MINUTES 34 SECONDS. AT 39 23 THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 394200 155/1

PAO THIS IS APOLLO CONTROL 39 HOURS 42 MINUTES INTO THE MISSION OF APOLLO 7. WE ARE COMING UP ON THE REDSTONE TRACKING SHIP AND A VERY FEW SECONDS WE WILL STAND BY FOR WHATEVER MAY TRANSPIRE THERE.

CAPCOM APOLLO 7, HOUSTON.

SC ROGER, HOUSTON.

CAPCOM ROGER, APOLLO 7, HOUSTON READY FOR YOUR READ BACK ON BLOCK DATA WHEN YOU ARE READY.

SC ROGER, STAND BY. I AM RIGHT IN THE MIDDLE OF A P52. WILL BE WITH YOU IN A SECOND.

CAPCOM RIGHT.

SC HOUSTON, I AM READY WITH THE FEEDBACK.

CAPCOM ROGER, GO.

SC ROGER, AREA ZERO TWO SEVEN TWO BRAVO PLUS ZERO SIX MINUS ZERO TWO FIVE FOUR ZERO ONE TWO SIX ONE THREE FOUR ONE FOUR THREE DASH TWO BRAVO PLUS TWO SEVEN SEVEN MINUS ZERO TWO EIGHT EIGHT ZERO FOUR THREE ZERO TWO ZERO FOUR FIVE FOUR ONE NINE THREE ZERO TWO NINE ONE BRAVO PLUS TWO FOUR ZERO MINUS ZERO SIX THREE THREE ZERO FOUR FOUR TWO SEVEN FIVE TWO FOUR ONE TWO EIGHT THREE ZERO DASH ONE ALPHA PLUS TWO NINE SEVEN MINUS ZERO SIX SIX TWO ZERO FOUR SIX ZERO THREE THREE FOUR FOUR TWO FOUR SIX ZERO THREE ONE DASH ONE BRAVO PLUS THREE ONE SEVEN MINUS ZERO SIX SIX TWO ZERO FOUR SEVEN THREE NINE TWO NINE FOUR FOUR THREE FOUR TWO TWO DASH ONE ALPHA PLUS TWO NINE ONE MINUS ZERO SIX SIX TWO ZERO FOUR NINE ONE FIVE FOUR NINE FOUR SIX FIVE ZERO.

CAPCOM ROGER. COPY READS BACK. THAT CHECK ONE ITEM ON THE THIRD BLOCK ZERO TWO NINE DASH ONE BRAVO SECOND ENTRY PLUS TWO FOUR ZERO.

SC ROGER, PLUS TWO FOUR ZERO.

CAPCOM ROGER, READS BACK CORRECT. AND ALSO ADVISORY, WE HAD GOOD VOICE QUALITY ON THE REDSTONE DUMP THAT WE GOT ON THE LAST PASS.

SC ALL VERY GOOD. I GOT A COUPLE OF SMALL ITEMS FOR YOU. WALLY TOOK A COUPLE OF ASPRIN AND AN ACTIFED AND HE ONLY TOOK ONE ACTIFED. HE FEELS FINE. HE HAS JUST GOT A LITTLE STUFFY SYMPTOM AND I PUT SOME NOSE GREASE ON MY NOSE BECAUSE MY NOSTRILS ARE A LITTLE DRY AND BESIDES IT SMELLS GOOD.

CAPCOM ROGER, UNDERSTAND WALLY TOOK TWO ASPRINS AND ONE ACTIFED AND ONLY TOOK ONE ACTIFED AND YOU TOOK SOME NOSE DROPS WAS IT OR CREAM?

SC NOSE CREAM. IT IS A FLUID THEY GAVE ME WITH MY PILLS. WALT IS THE ONE THAT TOOK THE ACTIFED NOT DONN.

CAPCOM OH, OKAY, DONN. I AM SORRY.

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 394200 155/2

SC YEAH. ... ABOUT 16 DRINKS OF WATER HERE
IN THE LAST 45 MINUTES OR SO.

CAPCOM THAT IS DONN.

SC RIGHT. CHECK.

CAPCOM CHECK.

SC I JUST WANT TO ADD ... COMING OUT OF A
VERY GOOD SLEEP AND FEELING GREAT.

CAPCOM ROGER. THANK YOU. APOLLO 7, HOUSTON.
WE WOULD LIKE THE BIOMED TO NUMBER ONE.

SC UNDERSTAND AND I WILL DO THAT AFTER I
AFTER I DO THIS ALIGNMENT. DOES THAT MEAN YOU WANT TO...

CAPCOM ROGER. WE LOST THE DOWN LINK ON THE
BIOMED AND THIS IS JUST TO SEE EXACTLY THE CIRCUIT OR IN THE
BIOMED POWERDOWN.

SC ROGER. I WILL DO THAT IN A COUPLE OF
MINUTES.

CAPCOM OKAY, FINE. WE HAVE ABOUT ONE AND A
HALF MINUTES UNTIL LOS.

SC YOU MEAN I GET UNTIL NEXT PASS TO ..
THIS ALIGNMENT.

CAPCOM OKAY.

PAO THIS IS APOLLO CONTROL 39 HOURS 51 MINUTES
INTO THE MISSION OF APOLLO 7. WE HAVE JUST COMPLETED OUR PASS
WITH THE REDSTONE TRACKING SHIP. NEXT CONTACT WILL BE
CANARY ISLANDS, WHICH SHOULD COME ABOUT 40 HOURS 14 MINUTES
17 SECONDS. DURING THIS LAST PASS, WE WENT THROUGH AN INERTIAL
MEASURING UNIT REALIGNMENT. THE INERTIAL MEASURING UNIT OF
COURSE PROVIDES BASIC REFERENCE AGAINST WHICH YOU CAN MEASURE
SPACECRAFT MOVEMENT AND IT HAS TO BE REALIGNED PERIODICALLY.
WE WERE INFORMED THAT ASTRONAUT SCHIRRA TOOK ONE ACTIFED AND
TWO ASPRINS AND ASTRONAUT CUNNINGHAM ONE ACTIFED AND ASTRO-
NAUT EISELE SOME NOSE CREAM WAS APPLIED TO HIS NOSE. WE HAVE
HAD NO BIOMEDICAL READOUTS DURING THIS LAST PASS AND THE
MEDICAL PEOPLE AND THE FLIGHT DIRECTOR NOW CONFERRING IN
TRACKING DOWN THE SITUATION TO SEE IF WE CAN TUNE THAT UP AND
GET SOME BIOMED READOUTS IN THE NEXT PASSES. AT 39 HOURS
52 MINUTES, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 40L400

L56/L

PAO THIS IS APOLLO CONTROL, 40 HOURS,
14 MINUTES INTO THE FLIGHT OF APOLLO 7. WE ARE IN THE
TWENTY SIXTH REVOLUTION COMING UPON CANARY ISLANDS IN A
FEW SECONDS. WE WILL JOIN SUCH CONVERSATION AS WE HAVE
AT THE CANARY POINT NOW.

CAPCOM APOLLO 7, HOUSTON ACQUISITION, CANARY.

SC I HEAR YOU HOUSTON.

CAPCOM OKAY. APOLLO 7, HOUSTON, ABOUT TWO
BAGS LOS, CANARY. NEXT ACQUISITION WILL BE REDSTONE AT
41 + 17. THAT WILL BE ABOUT 1 HOUR. APOLLO 7, THIS IS
HOUSTON.

SC GO AHEAD, DON.

CAPCOM ROGER, DON, DID YOU GET P-52 FINISHED?

SC YEAU, I DID IT TWO OR THREE TIMES.

CAPCOM ROGER.

SC I WAS FLYING.

CAPCOM GOOD SHOW. APOLLO 7, HOUSTON, INTERRUPT
30 SECONDS TO LOS.

SC THIS IS LOS. IT TOOK ABOUT HALF AN HOUR.

CAPCOM OKAY.

PAO THIS IS APOLLO CONTROL. WE HAVE HAD
LOST OF SIGNAL, CANARY ISLANDS. APOLLO 7 WILL NOW GO FOR
ABOUT AN HOUR BEFORE WE HAVE CONTACT AT THE REDSTONE - RED-
STONE TRACKING SHIP. THAT WILL BE - 41 HOURS, 17 MINUTES,
24 SECONDS INTO THE MISSION. THE PROGRAM 52, INERTIAL
MEASUREMENT, MEASURING UNIT REALINEMENT WAS CONFIRMED TO
HAVE BEEN COMPLETED. THE ONLY THING THAT SHOULD TAKE PLACE
BETWEEN NOW AND THE NEXT STATION CONTACT WILL BE THE WATER
WASTE TANK DUMP AND THE ENVIRONMENTAL CONTROL SYSTEM WHICH
WILL TAKE PLACE AT 41 HOURS INTO THE MISSION. AT THAT POINT
ALSO, THE SPACECRAFT COMMANDER AND THE LUNAR MODULE PILOT
WILL ENTER THEIR SLEEP PERIOD. AND DON EISELE, THE COMMAND
MODULE PILOT WILL BE AWAKE AND ON DUTY. SO WE HAVE A LONG
DRY SPELL FOR 1 HOUR BEFORE THE NEXT STATION CONTACT. AT
40 HOURS, 20 MINUTES INTO THE MISSION, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, L0/L3/68, GET: 4LL700 L57/L

PAO THIS APOLLO CONTROL 4L HOURS L7 MINUTES INTO THE MISSION OF APOLLO 7. WE'RE APPROACHING THE RED STONE TRACKING SHIP AND ASTRONAUT STAFFORD IS ENDEAVORING TO MAKE CONTACT WITH THE SPACECRAFT. LET'S JOIN THEM NOW.

CAPCOM ... HAVE YOU PERFORMED THE WASTE WATER DUMP THAT WAS SCHEDULED FOR AROUND 4L HOURS?

SC ... WE'RE GOING TO WAIT UNTIL IT GETS TO ABOUT 90 PERCENT, THAT WAY WE WON'T HAVE TO DO IT SO OFTEN.

CAPCOM OKAY. SP-L WE'RE GOING TO GIVE YOU THE MC - WE'RE GOING TO SEND YOU AN MCC UPDATE PREVIOUSLY SCHEDULED FOR FOR 4440 AT 44 HOURS.

SC ROGER. UNDERSTAND.

CAPCOM AND WE'RE PLANNING THE S-IVB TRACKING PREVIOUSLY SCHEDULED AT 46L0 . IT WILL NOW BE AT FOUR FOUR PLUS THREE SIX. ARE YOU SURE THAT WAS GOOD UPDATE VECTORED ON THAT AND THE S-IVB WILL BE AT ABOUT L70 NAUTICAL MILES.

SC HEY TOM, HOW (GARBLE) AS SOON AS I GET THEM I'M GOING TO WRITE THEM DOWN AND THEN YOU CAN GIVE IT TO ME A LITTLE LATER.

CAPCOM ROGER.

SC PAUL, ARE YOU STILL THERE.

SC HOUSTON, APOLLO 7.

CAPCOM GO, APOLLO 7, HOUSTON.

SC ROGER. WE'VE JUST COMPLETED THE 23 SEXTANT CALIBRATIONS. I THINK THE YOUR DATA IS DOWN RANGE.

CAPCOM APOLLO 7, HOUSTON. WE'RE ABOUT ONE MINUTE TO LOS AND YOUR STARTING TO FADE OUT. I UNDERSTAND YOU'VE COMPLETED THE SEXTANT CALIBRATION.

SC ROGER.

CAPCOM APOLLO 7, HOUSTON. DID YOU EXPERIENCE A RESTART A COUPLE OF MINUTES AGO.

SC I EXPERIENCED A RESTART DURING PART OF PROGRAM 52 THAT I WAS USING TO FIND SOME STARS I NEEDED. AND I THINK IT HAPPENED - ABOUT ONE BEFORE THE OTHER DAY. WHEN YOU GO FROM ZERO OPTICS TO CMC AND ALSO HIT THE FEED AND YOU HAVEN'T WAITED L5 SECONDS. ITS A PROCEDURAL ERROR AND ITS JUST A MOMENTARY RESTART, ALMOST PROGRAM ALARM.

CAPCOM OKAY.

SC INCIDENTALLY I HAVE A 02 FLOW HIGH LIGHT I EXPECT ITS THE SAME PROBLEM WE HAD EARLIER ... WE HAVEN'T FOUND THE TROUBLE SHOOTER FOR SURE YET, THOUGH.

CAPCOM OKAY. WE'LL PICK YOU UP - ITS AOUT L5 SECONDS TO LOS AND WE'LL PICK YOU UP OVER CANARY'S.

PAO THIS IS APOLLO CONTROL 4L HOURS 26 MINUTES INTO THE MISSION. WE'VE FINISHED OUR REDSTONE TRACKING SHIP PASS. THE NEXT POINT WILL BE ANTIGUA AT 4L 38. THEY SPOKE AOUT WHEN TO DUMP WASTE WATER. THE CREW DESIRES TO DUMP IT

APOLLO 7 MISSION COMMENTARY, L0/L3/68, GET: 4LL700

L57/2

PAO WHEN 90 PERCENT QUANTITY IS REACHED, HOW-
EVER THEY'RE TALKING ABOUT IT NOW. IT'S POSSIBLE THAT THAT
WOULD BE REACHED RIGHT IN THE MIDDLE OF THE SPACECRAFT
COMMANDER AND LM PILOT SLEEP PERIOD; IN WHICH CASE ASTRONAUT
SCHIRRA WOULD HAVE TO BE DISTURBED SO THEY COULD GET THE
EQUIPMENT OUT TO DUMP THE EXCESS WATER. THAT WILL PROBABLY
BE RESOLVED BY THE TIME WE HAVE CONTACT AT ANTIGUA. WE'RE
STILL GETTING NO BIO-MEDICAL DATA READOUTS AND THEY CAN
ONLY ASSUME THAT THERE'S SOME MECHANICAL DIFFICULTY WITH SOME
OF THE EQUIPMENT. AT 4L HOURS, 27 MINUTES INTO THE MISSION
INTO THE MISSION THIS IS APOLLO CONTROL.

END OF TAPE

PAO THIS IS APOLLO CONTROL 41 HOURS 38 MINUTES INTO THE MISSION OF APOLLO 7. WE'RE COMING UP AND SHOULD HAVE ACCESS WITH ANTIGUA JUST ABOUT NOW. LET'S JOIN THE CONVERSATION AND SEE WHAT GOES ON.

CAP-COM APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.

SC HOUSTON, APOLLO 7, GO.

CAP COM ROGER. IN REFERENCE TO THE WATER DUMP. WE'RE READING 70 PERCENT NOW, PREDICTING A 90 PERCENT LEVEL AT APPROXIMATELY 45 HOURS BUT NO LATER THAN 46 HOURS. WE'LL HAVE TO DUMP AT THAT TIME. IT'S RIGHT IN THE MIDDLE OF A SLEEP PERIOD, AH, TO GET DUMPING AS SOON AS YOU CAN IN ORDER TO PREVENT INTERRUPTING IN THE MIDDLE OF SLEEP CYCLE.

SC ROGER, I GOT YOU BILL. THEY'RE ALREADY ASLEEP AND THE WAY WE'VE GOT IT ARRANGED IT WON'T DISTURB EITHER ONE OF THEM. JUST AS SOON LEAVE AT 45 HOURS.

CAP COM OKAY.

SC GOOD THINKING. AH, BILL, COULD YOU GIVE ME THOSE FLIGHT PLAN UPDATES THAT TOM CALLED AWHILE AGO. I WAS RIGHT IN THE MIDDLE OF A G&N EXERCISE AND DIDN'T GET TO WRITE IT DOWN.

CAP COM OKAY, I'LL START TALKING I HAVE ABOUT A MINUTE AND 15 SECONDS. OKAY, AT 44 HOURS WE WILL GIVE YOU THE NCC UPDATE PREVIOUSLY SCHEDULED FOR 44 + 40.

SC ROGER.

CAP COM OKAY. AT 44 + 36 PERFORM S-IVB TRACKING. THAT WAS PREVIOUSLY SCHEDULED AT 46 + 10. AT THAT TIME, THIS NEW TIME, THE S-IVB WILL BE AT 169 NAUTICAL MILES. THE LAST ITEM AT 45 + 30 DELETE 252 IMU REALIGN.

PAO THIS IS APOLLO CONTROL. OUR NEXT CONTACT WILL BE CANARY ISLANDS AT 41 HOURS 47 MINUTES, ABOUT 5 MINUTES FROM THIS TIME. THE MOST SIGNIFICANT THING IN THE LAST TWO CONTACTS, OF COURSE, HAS BEEN IN THE FLIGHT PLAN WE HAVE CHANGED THE S-IVB TRACKING TIME FROM 46 HOURS AND 15 MINUTES INTO THE MISSION BACK TO 44 HOURS AND 36 MINUTES INTO THE MISSION. THE REASON BEING THAT THE S-IVB WILL BE AT 169 NAUTICAL MILES FROM THE SPACECRAFT AT 44 36 WHERE IF THEY WAITED ANOTHER REVOLUTION, IT WOULD BE FARTHER AWAY FROM THE SPACECRAFT. THEY DESIRE TO TRACK IT AT ROUGHLY THAT 170 NAUTICAL MILE DISTANCE. WE'LL COME UP AGAIN WHEN WE HAVE CONTACT WITH THE CANARY ISLANDS IN SOME FOUR MINUTES OR SO FROM NOW. AT 41 HOURS 43 MINUTES, THIS IS APOLLO CONTROL.

END OF TAPE

PAO THIS IS APOLLO CONTROL 41 HOURS 47 MIN-
UTES INTO THE MISSION OF APOLLO 7. WE'RE COMING UP IN A
FEW SECONDS WITH ACQUISITION WITH THE CANARY ISLANDS TRACK-
ING STATION. WE'LL JOIN THEM NOW.

SC HOUSTON, GO AHEAD.

CAP COM ROGER. HOW FAR DID YOU COPY ON THE
FLIGHT PLAN UPDATE?

SC ... I THINK I GOT IT ALL BILL. I'VE GOT
THE S-IVB TRACKING AT 44 36 INSTEAD OF 46 HOURS AND DELETE
THE 252 REALIGNMENT AT 45 30.

CAP COM ROGER. THAT COMPLETES THE FLIGHT PLAN
UPDATE. I HAVE A COUPLE OF ITEMS. WE'RE STILL MONITORING
AN O2 FLOW HIGH CHECK WASTE DUMP CLOSED. SECOND ITEM, WE'D
LIKE BIOMED CMP. OKAY, WE'RE MONITORING IT NOW. FORGET THE
BIOMED, IT'S OKAY.

SC GETTING ANYTHING? OVER.

CAP COM YES, WE ARE.

SC OKAY. BILL, ONLY GETTING HALF IT, ...
CAN'T PICK UP, I'LL TRY AGAIN LATER TO GET IT TO PLUG IN.

CAP COM OKAY.

SC I DID HAVE THE WASTE DUMP OPEN NOW, I
DON'T THINK THAT OUGHT TO ... SO HIGH.

CAP COM ROGER. UNDERSTAND IT WAS OPEN.

SC ROGER. ... A LITTLE WHILE THERE IT WAS
... DEPARTMENT HOWEVER I ... THAT ... SO HIGH AND I JUST
TURNED THE ... OFF.

CAP COM ROGER.

SC ... I SUSPECT IT'S STILL A ... PROBLEM.

CAP COM OKAY. WE'RE WATCHING IT. WE HAVE ABOUT
SIX MORE MINUTES HERE.

SC (GARBLED) I'D APPRECIATE IT.

CAP COM ROGER. WE'LL KEEP YOU INFORMED.

APOLLO 7, HOUSTON, WE HAVE ABOUT TWO MINUTES LOS CANARIES.
YOUR O2 MINIFOLD IS DROPPING OFF. IT'S DROPPED FROM .96 TO
.74 IN THE LAST FEW MINUTES. O2 FLOW.

SC OKAY. O2 FLOW.

CAP COM RIGHT.

SC ... DOING THE SAME THING. MY ONBOARD
PROCEDURE LEADS ME TO BELIEVE IT'S STILL A FAILING SENSOR.
DO YOU CONFIRM THAT? A, BILL, WHAT DO YOU HAVE DOWN THERE
FOR A2 TANK PRESSURE, MINE IS READING LOW, AOUT 840.

CAP COM OKAY, STAND BY.

SC AH, CORRECTION, NUMBER TWO IS READING
LOW. NUMBER ONE IS ABOUT 860.

CAP COM COMING UP ON LOS YOU HAVE 876 AND 853
IN ONE AND TWO, 846 IN THE THIRD TANK.

SC OKAY, IS THAT ALRIGHT WITH EVERYBODY
DOWN THERE?

CAP COM I THINK SO, STAND BY.
 SC (GARBLED)
 CAP COM NO, THAT'S GOOD.
 SC ... EVERYBODY CONCERNED.
 CAP COM WE'LL NEED THE S-BAND VOLUME UP FOR
 HONEYSUCKLE PASS AT 42 + 32.
 SC ROGER, I'LL ...
 CAP COM THANK YOU.
 PAO THIS IS APOLLO CONTROL, 41 HOURS 57 MIN-
 UTES INTO THE MISSION. WE ARE OUT OF RANGE NOW WITH CANARY
 ISLANDS. AT 42 HOURS 32 MINUTES, THEY WILL BE IN RANGE OF
 HONEYSUCKLE IN AUSTRALIA. THEY HAVE CHECKED THE O2 FLOW
 HIGH RATE AS THE READOUT WAS BEFORE, THE CHECK WASTE VENTS
 WERE CLOSED AND WHEN THAT HAPPENED, THE O2 RATE CAME DOWN
 FROM 94 AND IT CAME DOWN TO 70.7 AH .94 TO .72 POUNDS PER
 HOUR WHICH IS QUITE ACCEPTABLE SO, WITH EVERYTHING LOOK-
 ING GOOD AT 41 HOURS 58 MINUTES INTO THE MISSION, THIS IS
 APOLLO CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 423200

160/1

PAO THIS IS APOLLO CONTROL, 42 HOURS 32 MIN-
UTES INTO THE MISSION. WE ARE COMING UP ON OUR PASS OVER
HONEYSUCKLE CREEK. WE'RE HALFWAY THROUGH AUSTRALIA NOW AND
WE SHOULD HAVE CONTACT WITH THE SPACECRAFT IN A VERY FEW
SECONDS. WE'LL STAND BY FOR SUCH CONTACT.

CAP COM APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.
APOLLO 7, HOUSTON. APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.
APOLLO 7, HOUSTON. APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.
APOLLO 7, HOUSTON. APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.

PAO THIS IS APOLLO CONTROL 42 HOURS 39 MIN-
UTES INTO APOLLO 7. WE HAD NO RESPONSE FROM THE SPACECRAFT
DURING THIS PASS AT HONEYSUCKLE CREEK IN AUSTRALIA. WE
SHOULD HAVE SOME CONTACT AT THE REDSTONE TRACKING SHIP WHICH
WILL HAVE ACQUISITION AT 42 HOURS 52 MINUTES INTO THE MIS-
SION. AT 42 39, THIS IS APOLLO CONTROL.

END OF TAPE

PAO THIS IS APOLLO CONTROL 42 HOURS 52 MINUTES INTO THE MISSION. WE ARE COMING UP ON THE REDSTONE TRACKING SHIP ACQUISITION PERIOD NOW. LET'S LISTEN IN.

CAP COM ROGER. REFERENCE THE O2 FLOW HIGH. ANALYSIS HERE INDICATES YOUR O2 LOW HIGH INDICATION ONBOARD WAS VALID AT THE TIME YOU HAD 5.0 CABIN PRESSURE WHEN THE WASTE VENT WAS OPEN. UPON CLOSING, THE PRESSURE GRADUALLY INCREASED TO 5.1. APOLLO 7, HOUSTON. DO YOU STILL HAVE AN O2 FLOW HIGH?

SC NEGATIVE. DOWN TO NORMAL NOW.

CAP COM OKAY. ONE OTHER ITEM. THE WASTE WATER DUMP RECOMMEND DUMPING 85 PERCENT INSTEAD OF 90 PERCENT. THEY'RE NOT SURE IT'S SAFE TO WAIT TIL 90 PERCENT DUE TO POSSIBILITY OF OVERBOARD DRAIN FREEZE. APOLLO 7, HOUSTON. IS THE COMMANDER'S AND THE LMP'S COBRA CABLE UNCONNECTED? VERIFY IT IS NOT CONNECTED.

SC ROGER. THEY'RE NOT CONNECTED UP HERE. THEY'RE OFF OF IT.

CAP COM THANK YOU VERY MUCH. ALSO I HAVE A -- DISREGARD.

SC SAY AGAIN.

CAP COM AH, DISREGARD.

SC HEY, BILL, WOULD YOU LOG ME 12 CLICKS WHEN THE WATERS GONE?

CAP COM ROGER, 12 CLICKS WHEN THE WATERS GONE. APOLLO 7, HOUSTON. ONE MINUTE LOS REDSTONE, ANTIGUA AT 43 + 10.

SC ROGER. 43 + 10. YOU GOT THE NIGHT SHIFT, EH?

CAP COM APOLLO 7, HOUSTON. COMING UP ON LOS I WILL HAVE A FLIGHT PLAN UPDATE. THERE ARE A COUPLE OF ITEMS AT ANTIGUA.

PAO THIS IS APOLLO CONTROL 43 HOURS 1 MINUTE INTO THE MISSION. WE WILL HAVE THE NEXT STATION CONTACT AT ANTIGUA, 43 HOURS 10 MINUTES, 9 MINUTES 8 MINUTES FROM NOW. AT 43 02, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/L3/68 GET: 431000 L62/1

PAO THIS IS APOLLO CONTROL 43 HOURS, 10 MINUTES
INTO THE MISSION OF APOLLO 7. WE'RE NOW COMING INTO ANTIGUA.
WE SHOULD HAVE CONTACT ANY SECOND WITH ANTIGUA. LET'S JOIN THE
CONVERSATION.

CAPCOM APOLLO 7, HOUSTON.
SC APOLLO 7, GO AHEAD.
CAPCOM ROGER. I HAVE A COUPLE OF THINGS FOR FLIGHT
PLAN UPDATE.

SC OKAY, GO AHEAD.
CAPCOM ROGER. FUEL CELL 02 PURGE AT 45 + 30.
THAT'S OVER CARNARVON.

SC ... 02 PURGE AT 45 + 30.
CAPCOM ROGER. AND DUE TO THE MATTER OF INFORMATION
HAVE YOU CHECKED ANY OF THE D&N CONTROL MODES?

SC ROGER. WE'VE USED - WE MANEUVERED
MANUALLY ABOUT 5 DEGREES PER SECOND AND OUR DEAD BAND WE'VE
DONE AUTO MANEUVERS, AUTO TRIP MANEUVERS, AND SAME DEAD BANDS
AND I ALSO USED THE MINIMUM IMPULSE CONTROLLER IN THE LEB.

CAPCOM ROGER. 5 DEGREES PER SECOND, MINIMUM DEAD
BAND, AUTO TRIM, MINIMUM DEAD BAND, AND A MINIMUM IMPULSE
CONTROLLER IN THE LEB.

SC ROGER.
CAPCOM THANK YOU.
SC HOUSTON, APOLLO 7.
CAPCOM APOLLO 7, HOUSTON, GO. APOLLO 7, HOUSTON
GO.

SC ... APOLLO 7.
CAPCOM ROGER APOLLO 7, HOUSTON.
SC WE'RE GETTING A HIGH PITCHED INTERFERENCE
NOISE COMING OVER VHF. HAVE YOU GOT ANY IDEA WHAT IT IS?
ARE YOU PICKING IT UP DOWN THERE?

CAPCOM HIGH PITCHED INTERFERENCE ON VHF, A
NEGATIVE. STAND BY.

CAPCOM DONN THIS IS ABOUT THE SAME PLACE LAST
NIGHT WHERE YOU PICKED UP THE MUSIC.

SC THERE'S MUSIC ON THERE TOO.
CAPCOM APOLLO 7, HOUSTON. THE NET IS LOOKING
AT IT.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 431900

163/1

PAO THIS IS APOLLO CONTROL 43 HOURS 19 MINUTES INTO THE MISSION OF APOLLO 7. WE'LL HAVE ACQUISITION BY CANARY ISLANDS AT 43:21:59, THAT'S ONLY TWO OR THREE MINUTES FROM NOW. WE HEARD FROM MR. EISELE THAT THE VHF HIGH PITCH INTERFERENCE NOISE WAS COMING IN AS THEY WERE PASSING ANTIGUA AND ASTRONAUT POGUE INDICATED THAT THAT WAS THE SAME PLACE WHERE THE SPACECRAFT HAD PICKED UP THE SPURIOUS NOISE OF LAST NIGHT. THEY ARE NOW LOOKING INTO THIS TO SEE IF WE CAN TRACK IT DOWN. AT 43 HOURS 20 MINUTES INTO THE MISSION, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 432100 164/1

PAO MINUTES INTO THE MISSION. WE'RE COMING UP ON CANARY ISLANDS NOW, 43:21:59 ABOUT 30 SECONDS FROM NOW. WE'LL SEE IF WE GET ANY RESOLVE ON WHAT THE VHF INTERFERENCE WAS. LET'S LISTEN IN.

SC HOUSTON, APOLLO 7.
CAP COM APOLLO 7, HOUSTON. GO.
SC ROGER. I'VE GOT A HYDROGEN PURGE SCHEDULED HERE AT 44 HOURS, DO YOU WANT ME TO DO THAT OR ARE WE DOING THAT JUST ON DEMAND SO TO SPEAK.

CAP COM NEGATIVE. THAT ONE HAS BEEN DELETED.
SC OKAY, THAT'S THAT.
CAP COM THAT'S THE HYDROGEN PURGE AT 44 HOURS, THAT HAS BEEN DELETED.

SC ROGER.
CAP COM APOLLO 7, HOUSTON. WE WILL BE GIVING YOU A CSM AND S-IVB STATE VECTOR UPDATE OVER CARNARVON. WE WILL REQUIRE ACCEPT WHEN YOU GET TO CARNARVON AND WE'RE ESTIMATING AOS CARNARVON AT 43 + 57.

SC APOLLO 7, UNDERSTAND.
CAP COM APOLLO 7, HOUSTON. ONE MINUTE TIL LOS AT CANARY. IF YOU NEED CONTACT, WE HAVE ABOUT 2 MINUTES S-BAND AFTER THAT AT MADRID.

SC APOLLO 7 UNDERSTAND. THANK YOU.
PAO THIS IS APOLLO CONTROL 43 HOURS 31 MINUTES INTO THE MISSION. WE HAVE OUR NEXT STATION CONTACT COMING UP WHICH WILL BE CARNARVON, AUSTRALIA AND THAT WILL BE COMING UP 43 HOURS 57 MINUTES, SOME 27 OR 28 MINUTES FROM NOW. AT 43 HOURS 31 MINUTES INTO THE MISSION, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 435700

165/1

PAO THIS IS APOLLO CONTROL 43 HOURS 57 MINUTES INTO THE MISSION OF APOLLO 7. WE ARE APPROACHING AUSTRALIA NOW AND WE WILL BE IN CONTACT VERY SHORTLY WITH CARNARVON. AT THIS PASS THERE WILL BE AN MCC UPDATE IN PREPARATION OF THE S-IVB TRACKING WHICH WILL TAKE PLACE AT 44 HOURS 36 MINUTES INTO THE MISSION, SO LET'S MONITOR THIS CONVERSATION.

CAP COM APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.
APOLLO 7, HOUSTON. APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.
APOLLO 7, HOUSTON.

SC HOUSTON, APOLLO 7.
CAP COM ROGER. APOLLO 7, HOUSTON. HOW DO YOU
READ?

SC LOUD AND CLEAR.
CAP COM ROGER. IF YOU'LL GO TO ACCEPT WE'LL
SEND UP YOUR STATE VECTORS.

SC IS ON ACCEPT.
CAP COM AND I HAVE A NAV. CHECK HERE READY TO
COPY.

SC ROGER.
CAP COM NAV. CHECK READS 044 03 0000 MINUS 2170
+ 12234 1513.

SC AH, ROGER. COULD YOU SEND THAT ONE
AGAIN.

CAP COM ROGER. NAV. CHECK 044 03 0000 MINUS
2170 + 12234 1513. READ BACK.

SC ROGER. IT WAS 44 03 0000 MINUS 2170 +
12234 1513.

CAP COM ROGER. READBACK CORRECT. OKAY, APOLLO 7
HOUSTON, THE COMPUTER IS YOURS. WE HAVE A LITTLE LESS THAN
TWO MINUTES LOS CARNARVON. REQUEST S-BAND VOLUME UP IN ABOUT
ONE MINUTE OR TWO MINUTES.

SC ROGER.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 440700

166/1

PAO THIS IS APOLLO CONTROL. WE STILL HAVE ONE MORE MINUTE OF ACQUISITION AT HONEYSUCKLE CREEK BUT IT DOESN'T APPEAR THAT ANY MORE TRANSMISSION WILL TAKE PLACE. THE CAP COM POGUE HERE IN THE CONTROL CENTER INDICATED AND THEN WE SENT UP AN UPDATE FROM THE CONTROL CENTER FOR THE PURPOSE OF PREPARING THE SPACECRAFT FOR THE S-IVB TRACKING WHICH WILL TAKE PLACE 44 HOURS 36 MINUTES INTO THE MISSION. THAT WILL BE IN THE 28TH REVOLUTION, IT WILL BE COMING OUT OF THE NIGHT SIDE PASS, GOING INTO THE DAYTIME. THEY WILL TRACK THE S-IVB WHICH WILL BE ABOUT 169 NAUTICAL MILES AWAY AND HE WILL TRACK BETWEEN THE REDSTONE TRACKING SHIP AND CENTRAL AMERICAN COAST. THE NEXT POINT WE WILL HAVE CONTACT WITH THE SPACECRAFT WILL BE THE REDSTONE TRACKING SHIP, THAT WILL TAKE PLACE AT 44 HOURS 28 MINUTES INTO THE MISSION. AT 44 14, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 442800 167/1

PAO THIS IS APOLLO CONTROL, 44 HOURS,
28 MINUTES INTO THE MISSION OF APOLLO 7. WE'RE COMING UP
ON ACQUISITION WITH THE REDSTONE TRACKING SHIP IN A FEW
SECONDS. WE'LL MONITOR THAT CONVERSATION NOW.

CAPCOM APOLLO 7, HOUSTON THROUGH THE REDSTONE
STANDING BY. APOLLO 7, HOUSTON. ONE MINUTE LOS REDSTONE,
PICK YOU UP AT BAHAMAS IN ABOUT 12 MINUTES.

SC ROGER JACK, I READ YOU (GARBLE).

CAPCOM YOU'RE 5 BY DONN.

PAO THIS IS APOLLO CONTROL, 44 HOURS,
32 MINUTES INTO THE MISSION. WE HAVE JUST LOST CONTACT
WITH THE REDSTONE TRACKING SHIP. THE NEXT CONTACT WILL
BE GRAND BAHAMAS ISLANDS, 44 HOURS, 43 MINUTES INTO THE
MISSION, SOME 8-1/2 - 9 MINUTES FROM NOW. AT 44 HOURS,
36 MINUTES WE WILL BEGIN THE S4B STAGE TRACKING AT 169 NAUTICAL
MILES DISTANCE FROM THE SPACECRAFT. NOW WE WILL GO BACK
AND HAVE IN THIS PERIOD OF TIME - WE HAVE HERE A COUPLE
MINUTES OF UPDATE OF WHAT WENT ON IN THE LAST 7-1/2 TO
8 HOURS OF THE MISSION. AT 37 HOURS, 2 MINUTES WE HAD A
FLIGHT PLAN UPDATE. WE ALSO FOUND THAT EVERYBODY HAS
EVIDENCE OF ASTRONAUT STAFFORD TELLING THE CREW THAT IT
WAS A VERY GOOD RENDEZVOUS THAT DAY - YESTERDAY. ASTRO-
NAUT SCHIRRA WAS RELUCTANT TO CHANGE HIS SLEEP CYCLE AS
INQUIRED INTO FROM THE CONTROL CENTER BY DEKE SLAYTON. HE
INDICATED THE SLEEPING BAGS WERE NOT WORKING OUT TOO WELL,
THAT THE ASTRONAUTS BEING IN THEIR COUCHES WITH THE SEAT
BELT BUCKLED WERE MUCH MORE COMFORTABLE AND IT WORKED MUCH
BETTER THAN WHEN THEY USED THE SLEEPING BAGS. THE LIGHT
WEIGHT HEAD-SETS, HE SAID, WERE BETTER THAN THE COM CARRIER.
BECAUSE WITH THE COM CARRIER, THE CABLE JERKS THE HEAD
AROUND WHEN THEY MOVE AROUND THE COCKPIT. HE INDICATED
THEY HAD A PROBLEM WITH THE HASSELBLAD CAMERA, WHAT THAT
PROBLEM WAS - WHAT EXTEND IT WAS I DO NOT KNOW. THEY
FINISHED CHLORINATING THE WATER AGAIN AND ALSO ASTRO-
NAUT SCHIRRA INDICATED THAT THE EXERGENIE, THE EXERCISE
DEVICE ONBOARD THE SPACECRAFT WAS "THE BEST - ONE OF THE
BEST SPACIE THINGS WE'VE HAD IN YEARS". HE ALSO INDICATED
THEY WERE GETTING AROUND IN THE SPACECRAFT VERY WELL AND
THEY WERE BECOMING GYMNASTS. WE HAD NORMAL INERTIAL MEASURE-
MENT UNIT REALIGNMENTS, WE HAD AN INDICATION THAT ASTRO-
NAUT SCHIRRA TOOK A DECONGESTION TABLET, AN ACTIFED TABLET
PLUS 2 ASPIRIN, AND THAT ASTRONAUT CUNNINGHAM HAD TAKEN
1 ACTIFED TABLET, AND ASTRONAUT EISELE HAD USED SOME NOSE
CREAM FOR HIS NOSE. THIS WAS AT 39 HOURS, 43 MINUTES INTO
THE MISSION. THERE WAS NO PARTICULAR PHYSICAL PROBLEM
INDICATED BEYOND THE INDICATION THAT THEY HAD TAKEN THAT
MEDICATION. AT THAT TIME WE HAD NO BIOMEDICAL READOUTS.
LATER ON IN THE MISSION AT 41 HOURS, 47 MINUTES, THE BIO-
MEDICAL READOUTS BEGIN COMING IN TO THE MCC, SATISFACTORILY.

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 442800

167/2

PAO THEY PERFORMED A WASTE WATER DUMP, AS THEY HAD THE DAY BEFORE AND THERE IS NO PROBLEM IN THE ECS SYSTEM IN DUMPING THE WATER AND HAVING THE ECS OPERATE PROPERLY. THEY COMPLETED A SEXTANT CHECK WELL INTO THE TOUR AT 41 HOURS, 17 MINUTES AND HAD A FLIGHT PLAN UPDATE ON THE S4B TRACKING TIME. THAT WAS WHEN WE CHANGED THE TRACKING TIME TO 44 HOURS, 36 MINUTES INTO THE MISSION INSTEAD OF 46-1/2 HOURS. DUE TO THE FACT THAT THE S4B WOULD BE IN THE 169 NAUTICAL MILE PROXIMITY AT 44 HOURS, 36 MINUTES AND IT WOULD BE TOO FAR AWAY A REVOLUTION LATER. THIS TRACKING PROCEDURE WITH THE S4B WILL BEGIN VERY SHORTLY, IN FACT, IT HAS BEGUN OVER 1 MINUTE AGO. IT WAS INDICATED AT 41 HOURS, 47 MINUTES THAT THE O2, THE OXYGEN FLOW RATE AS MONITORED AT MCC IN HOUSTON, WAS INDICATING A HIGH FLOW RATE. IT WAS ALSO INDICATED TO THE CREW AT THAT TIME, THAT THEY SHOULD CHECK THE WASTE VENT AND CLOSE IT IF IT WERE OPEN, WHICH IT WAS. AFTER THAT WAS ACCOMPLISHED, THE O2 RATE CAME DOWN SATISFACTORILY AND IS NOW RIDING AROUND .35 L0 PER HOUR.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 443800

168/1

PAO - .35 POUNDS PER HOUR. WASTE VENT WAS TURNED OFF, STILL HAD ONBOARD THAT WAS HIGH AT THAT TIME, UT IT DID COME DOWN TO THAT .35 POUNDS PER HOUR. THE LAST - ONE OF THE LAST CONTACTS THAT WAS INDICATED BY ASTRO-NAUT EISELE THAT THE VHF HIGH PITCH INTERFERENCE NOISE WAS COMING IN. THAT WAS INDICATED TO HIM THROUGH - AROUND THE ANTIGUA AREA BY ASTRONAUT POGUE THAT LAST NIGHT THE SAME TYPE OF INTERFERENCE CAME IN WHEN HE PICKED UP MUSIC AND VOICE CONVERSATION IN THAT PARTICULAR AREA. THE CREW AP-PEARS TO BE IN GOOD CONDITION. THE SPACECRAFT COMMANDER AND THE LM PILOT ARE IN THEIR SLEEP PERIOD AND COMMAND MODULE EISELE IS NOW - SHOULD BE IN THE PROCESS OF TRACKING THE S-IVB. AT 44 HOURS 39 MINUTES INTO THE MISSION, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 444300 169/1

PAO THIS IS APOLLO CONTROL, 44 HOURS, 43
MINUTES INTO THE MISSION OF APOLLO 7. WE ARE NOW COMING UP
TO THE ACQUISITION POINT AT GRAND BAHAMA ISLANDS. WE'LL STAND
BY FOR ANY POSSIBLE CONVERSATION.

CAPCOM

APOLLO 7, HOUSTON; STANDING BY.

SC

ROGER JACK; I'M DOING THE B20 NAVIGATION

RIGHT NOW.

CAPCOM

ROGER.

SC

I'LL DO A SECTION. HOUSTON, THIS IS

APOLLO 7.

CAPCOM

GO AHEAD 7.

SC

ROGER; THE (GARBLE) FLOW IS MORE THAN
IN HERE. IT'S NOT (GARBLE). IT'S A DIFFERENT TRIANGLE BE-
CAUSE SOME OF THE BACKGROUND THAT I SEE FROM THE BASE LINE
(GARBLE) BUT IT'S STILL THERE AND YOU CAN STILL TRACK IT
ONE MORE TIME.

CAPCOM

ALL RIGHT. I'VE BEEN FOLLOWING YOUR MARKS
DON AND IT LOOKS LIKE YOU ARE GETTING IN VERBAL 649; IT LOOKS
LIKE YOU'RE GETTING REAL GOOD MARKS.

SC

YEAH, WE (GARBLE) FREE ON THE (GARBLE)
TRACKING LENGTH WITHIN, I GUESS, A COUPLE OF MINUTES AT THE
LAST OF THE NAUTICAL TIME.

CAPCOM

ROGER.

SC

(GARBLE)

CAPCOM

SAY AGAIN DON.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 44:54:00 170/1

PAO THIS IS APOLLO CONTROL 44 HOURS 54 MINUTES INTO THE MISSION. WE WON'T HAVE ACQUISITION AT CANARY ISLANDS FOR ANOTHER 2 MINUTES AND 20 SECONDS OR SO. ASTRONAUT EISELE INDICATED TO THE MCC THAT THE TRACKING WITH THE SEXTANT, THE VISUAL TRACKING OF THE S-4B WAS GOING ALONG. HE SAID IT WAS NOT AS GOOD AS IT COULD BE DUE TO BRIGHT EARTH SHINE. HOWEVER, IT WAS STILL THERE AND YOU COULD STILL TRACK IT WITH THE SEXTANT. WE'LL BE COMING UP AT CANARY ISLAND PASS IN JUST A COUPLE OF MINUTES NOW. AT 44 HOURS 54 MINUTES THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 44:56:36 171/1

PAO THIS IS APOLLO CONTROL 44 HOURS 56 MINUTES
35 SECONDS INTO THE MISSION OF APOLLO 7. CANARY ISLANDS
WILL ACQUIRE IN ABOUT 10 SECONDS FROM THIS TIME. WE WILL
MONITOR THAT PASS.

CAPCOM APOLLO 7, HOUSTON, THROUGH THE CANARIES.
STANDING BY.

SC HOUSTON.
CAPCOM GO AHEAD, DONN.

SC GARBLED.
CAPCOM I COULDN'T READ THAT, DONN, YOU BROUGHT
TWO BY.

SC GARBLED.
CAPCOM DONN, WE CAN'T QUITE MAKE THAT OUT. WE'VE
GOT YOU HERE FOR ABOUT ANOTHER 5 MINUTES, AND MAYBE SIGNAL
STRENGTH WILL GET A LITTLE BIT BETTER.

CAPCOM APOLLO 7, HOUSTON. HOW DO YOU READ NOW?
SC GARBLED.
CAPCOM OKAY, DONN, YOU ARE A LITTLE BETTER THERE

ON S-BAND.
SC OKAY.
CAPCOM APOLLO 7, HOUSTON. YOU ARE ABOUT 1 MINUTE
LOS CANARIES, WE'LL PICK YOU UP OVER CARNARVON IN ABOUT 20 MIN-
UTES.

SC ROGER.

END OF TAPE

PAO THIS IS APOLLO CONTROL HOUSTON 45 HOURS 32 MINUTES INTO THE FLIGHT. DONN EISELE JUST PUT IN A CALL TO US VIA CARNARVON. HE SAID HE COULD STILL OBSERVE THE FLASHING LIGHTS ON THE S-IVB. HERE IS A RUNDOWN ON THE WEATHER TODAY AROUND THE WORLD, SOME OF WHICH THE CREW MAY BE ABLE TO OBSERVE ON THIS UPCOMING REV AS THEY GO THROUGH THE WINDWARD ISLANDS AREA. TAKING IT FROM THE TOP: IN THE WEST ATLANTIC RECOVERY AREA THE WEATHER WILL BE PARTLY CLOUDY TO MOSTLY CLOUDY WITH A FEW SHOWERS, WINDS WILL BE MOSTLY EASTERLY, RANGING FROM 10 TO 18 KNOTS, SEA IS 5 FEET AND THE TEMPERATURE IS IN THE UPPER 70'S. IN THE EASTERN ATLANTIC, WEATHER WILL BE MOSTLY FAIR, WITH NORTHEASTERLY WINDS OF 15 KNOTS, SEA IS ABOUT 3 FEET, TEMPERATURE IN THE 70'S. IN THE WEST PACIFIC LANDING AREA, WEATHER WILL BE FAIR TO PARTLY CLOUDY WITH A FEW SHOWERS, WINDS WILL BE MAINLY NORTHERLY 15 KNOTS, SEAS 5 FEET AND TEMPERATURES IN THE 60'S. IN THE MID-PACIFIC, WEATHER WILL BE CLOUDY WITH SHOWERS, STRONG EASTERLY WINDS AND MODERATELY ROUGH SEAS IN THE MORE NORTHERN LANDING AREAS. IN THE SOUTHERN PART OF THE ZONE, WEATHER WILL BE PARTLY CLOUDY, WINDS SOUTHERLY 12 KNOTS, SEAS 4 FEET AND TEMPERATURE IN THE 70'S. AN INTERESTING WEATHER FEATURE THAT THE CREW MAY BE ABLE TO OBSERVE TODAY WILL BE A DISTURBANCE IN ITS FORMATIVE STAGE IN AN AREA A FEW HUNDRED MILES EAST OF THE WINDWARD ISLANDS IN THE ATLANTIC OCEAN. THE COMMAND PILOT AND THE LUNAR MODULE PILOT REMAIN ASLEEP, AND THE SLEEP PERIOD IS PROGRAMED TO LAST SEVERAL MORE HOURS. AS A MATTER OF FACT, IT IS PROGRAMED TO LAST 5 MORE HOURS, SO IT LOOKS LIKE A NICE QUIET MORNING AHEAD OF US. AT 45 MINUTES HOURS AND - WE DO HAVE SOME TAPE FROM CARNARVON AND WE WILL PLAY IT FOR YOU NOW.

CAPCOM APOLLO 7, HOUSTON THROUGH CARNARVON,
STANDING BY.

SC ROGER, HOUSTON. HOUSTON, THE LIGHTS
ARE STILL FLASHING ON THE S-IVB.

CAPCOM ROGER, COPY THAT. AND DONN, AS WE
GO ALONG HERE TOWARD THE END OF OUR PASS, WHICH IS ABOUT
ANOTHER 8 MINUTES, WE WILL PICK UP HONEYSUCKLE, SO YOU WILL
WANT TO TURN UP YOUR S-BAND.

SC OKAY.

CAPCOM AND WE HAVE HONEYSUCKLE FOR ABOUT A
9 MINUTE PASS, SO WE WILL HAVE YOU FOR ABOUT ANOTHER 16 MIN-
UTES, AND THEN YOU'VE GOT A LONG STRETCH WITHOUT ANYTHING.

SC ROGER.

CAPCOM APOLLO 7, HOUSTON. GO AHEAD.

SC THAT WASN'T US, JACK.

CAPCOM OKAY, I'M SORRY, DONN.

CAPCOM APOLLO 7, HOUSTON. YOU WANT TO TURN
UP YOUR S-BAND VOLUME, WE ARE JUST ABOUT TO LOSE YOU OVER

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 453250

172/2

CAPCOM

CARNARVON.

SC

ROGER.

CAPCOM

THROUGH THIS BACKUP SITE AT HONEYSUCKLE JUST TO CHECK IT
OUT.

DONN, WE WANT TO MAKE A RADIO CHECK

SC

OKAY, JACK.

CAPCOM

SITE, HOW DO YOU READ ME?

APOLLO 7, HOUSTON THROUGH THE WIND

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 454200 173/1

CAPCOM APOLLO 7, HOUSTON THROUGH THE WIND SIGHT;
HOW DO YOU READ?

SC CLEAR JACK; I'LL TURN THE VOLUME UP.

CAPCOM OKAY, YOU'RE LOUD AND CLEAR HERE.

SC SOUNDS PRETTY GOOD.

CAPCOM ROGER; THIS IS A BACK UP SIGHT THERE IN
AUSTRALIA.

SC ROGER; JACK. I'VE BEEN LOOKING AT THIS
HORIZON PREPARING FOR THIS MID-COURSE NAVIGATION BUSINESS,
AND AT NIGHT THERE JUST ISN'T ANY HORIZON THAT YOU CAN DEFINE
IN THE SEXTANT AT ALL. THERE IS ONE IN THE TELESCOPE BUT I
DON'T THINK THAT'S ACCURATE ENOUGH.

CAPCOM OKAY.

SC THE AIRGLOW BAND OR WHAT EVER IT IS, IS
RIGHT'S DRUMMING. THE REAL EARTH IS SO WIDE THAT THERE'S NO
WAY TO USE IT THAT I CAN SEE FOR NAVIGATION.

SC OKAY, WE COPY THAT.

CAPCOM DON, CAN YOU CONFIRM WHETHER YOU DID THE
O2 PURGE ON THE FUEL CELL?

SC NEGATIVE; I DID NOT. I WAS WORKING THE
LAP. I'LL DO THAT NOW.

CAPCOM OKAY, REAL FINE.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 461350 174/1

PAO APOLLO CONTROL HOUSTON, YOU'RE 46 HOURS,
13 MINUTES INTO THE FLIGHT. JACK SWIGERT JUST PUT IN A
CALL TO APOLLO 7 AND GAVE THEM A STANDING BY MESSAGE. WE'LL
MONITOR AND SEE IF ANY CONVERSATION DEVELOPED.

CAPCOM APOLLO 7, HOUSTON.

SC ROGER, HOUSTON GO AHEAD.

CAPCOM ROGER. OPPOSITE ON THE - DONN, AND WE'RE
READING NOW 87 PERCENT ON THE WASTE QUANTITY. WE ARE RECOMMENDING
THAT YOU INITIATE THE DUMPING OF THE WASTE TANK.

SC ROGER, OPPOSITE ON THE AND 87 PERCENT
WASTE WATER AND WE'VE GOT A GOOD LOCK WITH THIS ANTENNA.

CAPCOM ROGER.

SC JACK, RECORD 12 CLICKS ON THE WATER.

CAPCOM SAY AGAIN. SAY AGAIN, DONN.

SC I SAID JUST RECORD 12 CLICKS ON THE
WATER GUN FOR ME.

CAPCOM OKAY.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 46:23:50 175/1

CAPCOM APOLLO 7, HOUSTON.
SC ROGER, HOUSTON, GO.
CAPCOM ROGER. YOU HAVE A GO FOR 47-1.
SC ROGER, GO FOR 47-1 AND LOG THE LMP
FOR 12 CLICKS ON THE WATER GUN.
CAPCOM WILL DO, AND GOOD MORNING.
SC GOOD MORNING.
SC HEY, JACK, SO FAR THIS URINE DUMP HAS BEEN
PRETTY DOGGONNED GOOD.
CAPCOM APOLLO 7, HOUSTON, GO AHEAD.
SC ROGER. I SAID THE URINE DUMP SYSTEM HAS
BEEN WORKING BEAUTIFULLY SO FAR.
CAPCOM OKAY, FINE. WALT, DID YOU HAVE THE VHF
OFF JUST A MINUTE AGO?
SC YES, I DID, I'VE JUST GOTTEN UP AND I
HADN'T TURNED IT ON YET.
CAPCOM OKAY, FINE.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 464216 176/1

PAO THIS IS APOLLO CONTROL 46 HOURS, 42 MINUTES INTO THE FLIGHT. THE CREW WAS ADVISED DURING A RECENT PASS THROUGH THE CANARY ISLANDS AREA TO SCRUB, TO FORGET ABOUT, SOME LM-MARK TRACKING THAT WAS TO TAKE PLACE ON THE WEST COAST IN THE NEXT SEVERAL HOURS. CLOUDS APPARENTLY OBSCURE THE AREA THAT WAS TO BE OBSERVED IN A PASS ACROSS EITHER CALIFORNIA OR THE WESTERN UNITED STATES. THE FLIGHT DIRECTOR GLYNN LUNNEY HAS GONE AROUND THE ROOM AND GOTTEN A VERY THOROUGH STATUS REPORT FROM EACH AREA, FROM EACH CONSOLE, IN THE ROOM AND OTHER THAN THAT, WE ARE WITNESSING ONE OF THE LONGER SCHEDULED SLEEP PERIODS OF THE FLIGHT. I SHOW THE COMMANDER OF THE APOLLO 7, WALLY SCHIRRA, AND WALT CUNNINGHAM ARE SCHEDULED HERE FOR AN 11 HOUR REST SLEEP PERIOD. WALT CUNNINGHAM HAS JUST TALKED TO US BRIEFLY AND RATHER SLEEPILY AND PROBABLY WILL DROWSE ON BACK TO SLEEP. HE WOKE UP, HAD A DRINK OF WATER, AND TALKED A BIT ON THE LAST PASS. HERE IS SOME TAPE FROM THAT PASS.

SC WE HAVE THE PRELIMINARY COOL (GARBLE) COMING UP EMENSELY. I DON'T KNOW HOW LONG THE WATER BOILER CAN GO WITHOUT RESERVICING AND IF IT IS NOT WORKING, IT SEEMS TO BE HAVING AN EFFECT ON THAT SECONDARY PUMP.

CAPCOM ROGER. WE'RE HAVING A MEETING DOWN HERE ON THAT VERY SUBJECT. WE'LL COME UP TO YOU WITH A PROCEDURE FOR ACTIVATING THAT PRIMARY WATER BOILER TO TAKE IT OUT.

SC ROGER.

CAPCOM APOLLO 7, HOUSTON.

SC GO HOUSTON.

CAPCOM WE HAVE A FLIGHT PLAN UP DATE HERE; THE LAND MARK TRACKING THAT WAS PLANNED FOR ABOUT 4740, THE WEATHER IS VERY, VERY BAD OVER THOSE AREAS AND WE ARE RECOMMENDING THAT, WE ARE ASKING YOU TO DELETE THAT LAND MARK TRACKING EXERCISE.

SC ROGER. I JUST DID A LITTLE BIT USING CLOUDS AS UNKNOWN LANDMARKS AND RAN THROUGH THE PROGRAM. SEEMS TO WORK OKAY. I GOT THROUGH OUR UPDATES.

CAPCOM OKAY, REAL FINE DON. APOLLO 7, HOUSTON. WE ARE SHOWING THE WASTE QUANTITY DOWN BELOW AT 20 PERCENT NOW; IT LOOKS REAL GOOD TO US HERE.

SC ROGER; WE'RE SHUTTING IT OFF RIGHT NOW.

CAPCOM OKAY. APOLLO 7, HOUSTON. YOU'RE 1 MINUTE LOS CANARIES. I'LL PICK YOU UP IN ABOUT 14 MINUTES AT TANANARIVE.

SC ROGER.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 465232

177/1

CAPCOM
STANDING BY.

SC

CAPCOM

TANANARIVE, CARNARNON IN ABOUT 9 MINUTES.

SC

APOLLO 7, HOUSTON THROUGH TANANARIVE,

ROGER.

APOLLO 7, HOUSTON. ONE MINUTE LOS

ROGER.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 47:17:20 178/1

PAO THIS IS APOLLO CONTROL HOUSTON, 47
HOURS 17 MINUTES. WE ARE IN TOUCH WITH APOLLO 7 VIA CAR-
NARVON AND HERE IS HOW IT'S GOING.
CAPCOM APOLLO 7, HOUSTON THROUGH CARNARVON,
STANDING BY.
SC ROGER. JACK, COULD YOU GIVE US A MAP
UPDATE?
CAPCOM WILL DO, WE WILL WORK IT OUT.
CAPCOM APOLLO 7, HOUSTON WITH YOUR MAP UPDATE.
SC ROGER, GO.
CAPCOM REV 29, YOUR GET IS A NODE OF 46 + 06 +
31, LONGITUDE WILL BE 129.2 DEGREES WEST, THE RIGHT ASCEN-
SION WAS 06 + 01.
SC ROGER. 46 + 06 + 31, 129.2 WEST.
CAPCOM ROGER. THAT WAS FOR REV 29. YOU ARE ON
30 NOW.
SC THANK YOU. WHAT'S THE NEWS THIS MORN-
ING?
CAPCOM GIVE YOU SOME SCORES IF YOU WOULD LIKE.
SC GO.
CAPCOM ANY PARTICULAR YOU INTERESTED IN?
SC USC, UCLA.
CAPCOM OKAY. WALT, PENN STATE BEAT UCLA 21 TO
6.
SC BOO.
CAPCOM AND USC BEAT STANFORD 27 TO 24. OKLA-
HOMA BEAT HOUSTON 21 TO 17.
SC THAT'S A SURPRISE.
CAPCOM AND HERE IS A GOOD ONE. OHIO STATE
BEAT PURDUE 13 TO 0.
SC WHO BEAT PURDUE?
CAPCOM OHIO STATE.
CAPCOM APOLLO 7, HOUSTON.
SC ROGER, HOUSTON.
CAPCOM ROGER. BIG NEWS IN THE PAPER TODAY WAS
APOLLO MEETS WITH SECOND STAGE.
SC WHAT WAS THAT?
CAPCOM THAT WAS THE BIG NEWS. APOLLO MEETS
WITH SECOND STAGE, FRONT PAGE STUFF.
SC ALMOST MAKES IT WORTH IT. I TELL YOU,
YOU HAD THREE OF US SWEATING UP HERE.
CAPCOM APOLLO 7, HOUSTON. DO YOU WANT TO
TURN UP YOUR S-BAND? WE ARE ABOUT 1 MINUTE LOS CARNARVON.
WE WILL PICK YOU UP OVER HONEYSUCKLE AND - ALMOST INSTANTANE-
OUS THERE.
SC WILL GO.
CAPCOM AND APOLLO 7, JUST CONTINUING WITH THE
MORNING NEWS. BASICALLY, THE HEADLINES THIS MORNING ARE

CAPCOM ALL ABOUT THE RENDEZVOUS. THEY HAD ANOTHER HEART TRANSPLANT IN HOUSTON EARLY THIS MORNING. IT IS GOING WELL AT LAST REPORT. HAVE YOU GOT THE AIR FORCE-NAVY SCORE, AIR FORCE OVER NAVY 26 TO 20, SOUTHERN CAL OVER STANFORD, OHIO STATE OVER PURDUE, TEXAS 26 OKLAHOMA 20, NOTRE DAME BEATING NORTHWESTERN 27 TO 7. APOLLO 7, HOUSTON. I HAVE SOME FLIGHT PLAN UPDATES HERE FOR YOU WHEN YOU ARE READY TO COPY.

SC ROGER, WAIT ONE. THE LAST SCORE WE GOT WAS 27 TO 7. COPY GO.

CAPCOM OKAY. AT THIS G&N ATTITUDES CONTROL TEST OVER HAWAII, WE WANT TO MAKE SURE THAT WE HAVE THE HIGH BIT RATE BEFORE WE START IT AND WE ACQUIRE HAWAII AT 490845. IT'S A LITTLE BIT DIFFERENT THAN IS IN THE FLIGHT PLAN, WE JUST WANTED TO MAKE SURE WE HAD THE HIGH BIT RATE BEFORE WE STARTED IT. THE SAME WAY WITH THE ATTITUDE CONTROL TEST WHICH IS AT 5040. ON REV 33, THE P52 IMU REALIGN AT 5130, WE WOULD LIKE YOU TO -

SC A LITTLE SLOWER, PLEASE JACK.

CAPCOM OKAY. THE IMU REALIGN AT 5130, WE WOULD LIKE YOU TO USE OPTION 3 INSTEAD OF OPTION 2. WE WOULD LIKE TO KEEP THE CURRENT REV MAP, AND ALSO WE WOULD LIKE YOU TO REPORT YOUR GYRO TORQUING ANGLES AT THE CONCLUSION OF THIS REALIGNMENT.

SC ROGER, GOT YOU.

CAPCOM OKAY. THE - AT 52 HOURS TO P20 NAVIGATION SUNRISE WILL BE AT 5206. THIS MIGHT BE USEFUL FOR YOUR S-IV TRACKING AT 320 MILES.

SC ROGER.

CAPCOM AND THAT'S IT RIGHT NOW.

SC OKAY. I HAVE A QUESTION HERE ON THE ATTITUDE CONTROL TEST. YOU'VE GOT HIGH BIT REQUIRED 20 TO 30 MINUTES ON THE G&N ATTITUDE CONTROL TEST, SHORTLY THEREAFTER YOU HAVE 10 TO 20 MINUTES OF G&N ATTITUDE CONTROL TEST. HOW ARE WE GOING TO GET ALL THAT AND - ARE THEY GOING TO GET ALL THAT DUMPED SO WE CAN GET OUR TAPE BACK?

CAPCOM OKAY, STAND BY THERE. I'LL GET EECOM ON THAT.

SC CAN'T YOU GET A LOT OF THAT IN REAL TIME, RATHER THAN TAPES?

CAPCOM YES, WE CAN. STAND BY, WALT.

CAPCOM APOLLO 7, SAY AGAIN.

SC WE DIDN'T CALL.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 474050 179/1

PAO THIS IS APOLLO CONTROL HOUSTON 47 HOURS 40 MINUTES. WE ARE ABOUT TO ACQUIRE THROUGH THE SHIP HUNTSVILLE PARKED OFF THE CALIFORNIA COAST AND WE'LL MONITOR THAT CONVERSATION WHEN AND IF IT DEVELOPS. FOR YOUR INFORMATION OUR ORBIT THIS MORNING IS 120 BY 155 NAUTICAL MILES. 120 BY 155 MILES. AND FOR THOSE KEEPING PRECISE TIMES OF THE STARTS OF REVOLUTIONS, THE NEXT CAPE CROSSING TIME WILL BE AT AN ELAPSED TIME OF 47 HOURS, 54 MINUTES, 32 SECONDS. THAT WILL BE THE START OF THE 31ST REVOLUTION. HERE'S THE PASS. CAPCOM APOLLO 7, HOUSTON. APOLLO 7, HOUSTON THROUGH GUAYMAS.

SC ROGER.

CAPCOM ROGER. WE'D LIKE TO GET SOME CONTINUING REMARKS ON YOUR HABITS THERE; HOW THINGS ARE GOING, YOUR LIVING CONDITIONS, SLEEP AND CREW CONDITION, AND THINGS LIKE THAT. BY THE WAY, WALT, WE WOULD LIKE TO ASK YOU HOW YOU ARE FEELING THIS MORNING AND IF THAT ONE ACTIFED THAT YOU TOOK HELPED OUT.

SC ROGER, I TOOK ONE ACTIFED; MY NOSE WAS SLIGHTLY STUFFY LAST NIGHT BUT IT DIDN'T GIVE ME ANY PROBLEM WHILE SLEEPING. I FEEL FINE THIS MORNING. I FEEL IN GOOD SHAPE.

CAPCOM OKAY, REAL GOOD NEWS.

SC (GARBLE)

CAPCOM IF YOU FEEL LIKE YOU WANT TO TAKE ANYMORE LET US KNOW, HUH?

SC ROGER, ALL OF US ARE SOMEWHAT CONCERNED ON THE SAME MATTER, BUT WALLY SEEMS TO BE GETTING A LOT BETTER TOO.

CAPCOM OKAY, THAT'S REAL FINE NEWS.

SC (GARBLE) A LITTLE WHILE UP HERE, THE WORLD IS (GARBLE) AT THIS TIME, WE'RE STILL (GARBLE) AROUND AND NO EXTRA TIME (GARBLE). LITTLE EXERCISE NOW AND THEN; GOOD SLEEP.

CAPCOM OKAY, THAT'S FINE.

SC I GOT 7 SOLID HOURS OF SLEEP LAST NIGHT AND WALT HAD JUST A4UT 6 AND HE'S STILL ASLEEP.

CAPCOM OKAY, THAT'S FINE.

SC (GARBLE) UPDATE HERE. SEVERAL THINGS, SMALL THINGS, BUT MOST OF THE THINGS WE (GARBLE). NORMALLY ON THE (GARBLE). THE SLEEPING BAG IS NOT, REALLY NOT EFFECTIVE AND (GARBLE) AND WE ALL FEEL KINDA THAT WAY.

CAPCOM OKAY, COPY THAT.

SC OTHER THAN THAT I THINK IT IS RATHER AMAZING HOW WELL AND QUICKLY WE ALL WENT TO SLEEP.

SC OKAY.

CAPCOM YOU MIGHT LOG THAT - FROM MY PERSONAL OBSERVATION AT LEAST, THAT THERE'S FAR TOO MUCH SWEET IN THE DIET, AND I FEEL LIKE WE HAVE MORE FOOD THAN WE NEED. I THINK WALLY FEELS THE SAME WAY. DON SEEMS TO BE EATING

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MOST OF HIS THOUGH.

CAPCOM

OKAY.

SC I UNDERSTAND FOR A COUPLE OF DAYS (GARBLE)
UNDERSTAND THE WHOLE DEAL IN ORDER TO KEEP (GARBLE).

CAPCOM

OKAY, COPY.

SC ANOTHER COMMENT IS EXERCISE IS VERY, VERY
GOOD, WILL MAKE YOU FEEL BETTER UP HERE. I FIND THAT AFTER
WE'RE UP HERE, OH AOUT, AROUND THE MIDDLE OF THE FIRST DAY,
WE STARTED NOTICING THAT YOUR LOWER ADOMINAL MUSCLES FEEL
SORE. ALWAYS IN THIS SEATED POSITION AND THERE IS CERTAINLY
ENOUGH STRAIN TAKEN OFF THEM, AND NOW THEY KINDA WANT TO BUNCH
OUT AND IF WE EXERCISE ONCE AND AWHILE, WE FEEL A LOT BETTER.

CAPCOM THAT'S A GOOD NOTE. COPY THAT; THAT'S
REAL FINE NEWS. AND WALT, SOMETIME, WALT AND DON, SOMETIME
AFTER WALLY GETS AWAKE AND THE THREE OF YOU HAVE A REAL GOOD
CHANCE, WE'D LIKE TO GET A GOOD STATUS CHECK OF YOUR WINDOWS.

SC ROGER; I CAN GIVE YOU THAT NOW IF YOU'D
LIKE.

CAPCOM

OKAY, LET'S DO.

SC OKAY, WINDOW NUMBER 5 IS STILL I'D SAY
IN VERY GOOD SHAPE. NOTHING COMPARED TO THE PICTURES I'VE
SEEN OF A AD WINDOW IN GEMINI. WINDOW NUMBER 4 IS STILL IN
GOOD SHAPE, I MEAN, NO CONCERN AOUT TAKING PICTURES OUT OF
IT AT ALL. WINDOW NUMBER 3 HAS BEEN CONTINUALLY DETERIORATING
SINCE ABOUT THE FIRST DAY AND YOU CAN SEE MOISTURE COLLECTED
ON THE INSIDE OF THE OUTER PANE AND KINDA SPOTTY IN THE MIDDLE.
YOU CAN SEE HORIZONS OUT OF IT, BUT NOTHING MORE. WINDOW NUMBER
2 IS STILL IN GOOD SHAPE. ON THE LEFT FRONT SIDE OF IT, YOU
CAN SEE A SLIGHT AMOUNT OF DISCOLORATION THAT MAY EVENTUALLY
WORK IT'S WAY IN ON IT. WINDOW NUMBER 1 IS SIMILAR TO WINDOW
5 AS IT SEEMS TO HAVE A LOT OF THESE LITTLE SNOW FLAKES
SETTLING ON IT AND WINDOW NUMBER 1 IS THAT CLOSE TO THE EARTH
NOW AND PROBABLY IS PULLING SOME AIR.

CAPCOM OKAY, COPY THAT. OKAY, WE'LL HAVE YOU
ALL THE WAY ACROSS THE STATES AND WE'LL JUST KEEP STANDING BY.

SC OKAY. YOU MIGHT MAKE NOTE THAT I HAVEN'T
HAD ANY PROBLEMS WITH FOOD BAGS YET. SEVERAL COMMENTS THOUGH
THAT THE PILL IS SUPPOSED TO BE BROKEN UP AND YOU'RE DOING WELL
WHEN YOU GET THE PILL INSIDE THE BAG. I DON'T KNOW ANYBODY
WHO'S GOT FINGERS STRONG ENOUGH TO BREAK IT. ALSO THE CHEWING
GUM DOESN'T, GUM DOESN'T HAVE ANY VELCRO ON IT WHENEVER IT SHOWS
UP AND IT'S TURNING OUT THAT IT'S PRETTY SIGNIFICANT THAT
EVERYTHING HAVE A PATCH OF VELCRO ON IT.

CAPCOM

OKAY, WE COPY THAT.

END OF TAPE

SC ... WE HAVE A (GARBLE) ON IT.
 CAPCOM OKAY, WE COPY THAT.
 SC ALSO, THE WET WIPE THAT'S PACKED WITH
 THE FECAL BAG, THEY DO NOT HAVE VELCRO ON IT AND THEY
 NEED IT.
 CAPCOM OKAY.
 SC THE TEMPERATURE INSIDE THE CABIN HAS
 BEEN VERY COMFORTABLE. WALLY AND DONN PUT ON THEIR WHITE
 COVERALLS. THEY GOT OUT OF THE SUIT. I'VE BEEN IN MY
 Y CWG EVER SINCE, AND I GUESS WHEN WE START WITH THE SHOW
 BUSINESS, I'LL HAVE TO GET DRESSED FOR IT.
 CAPCOM OKAY, I COPY THAT.
 CAPCOM APOLLO 7 HOUSTON.
 SC GO AHEAD.
 CAPCOM ON THE G AND N CONTROL CHECK THAT YOU
 WERE ASKING ABOUT, OVER HAWAII, THAT WILL BE DONE OVER THE
 STATES IN HIGH BIT RATE AND REAL TIME. IT WON'T REQUIRE
 ANY DSE OPERATION OTHER THAN NORMAL.
 SC ROGER, WE WILL STAND BY FOR YOUR VERI-
 FICATION THAT YOU HAVE HIGH BIT RATE DATA STATUS.
 CAPCOM OKAY, THAT'S REAL FINE.
 PAO THIS IS APOLLO CONTROL HOUSTON 48 HOURS
 04 MINUTES INTO THE FLIGHT. WE ARE OUT AT THE FAR END OF
 THE SHIP VANGUARD'S AREA OF ACQUISITION AND WE WILL PROBABLY
 HAVE NO MORE CONTACT FOR THIS PASS. THIS PASS DID BRING
 US A VERY COMPLETE SUMMARY OF THE CREW STATUS ON BOARD AND
 AMONG THE THINGS WE HEARD WAS THAT DONN EISELE GOT 7 SOLID
 HOURS, AS WALT CUNNINGHAM DESCRIBED THEM, OF SLEEP. CUNNING-
 HAM SAID HE HAD 6 HOURS AND HE REPORTED THAT SCHIRRA WAS
 STILL SLEEPING AND HE WAS STILL SLEEPING. WE DON'T KNOW
 PRECISELY HOW LONG WALLY SCHIRRA HAS BEEN ASLEEP. CUNNINGHAM
 ALSO REPORTED SOME IMPROVEMENT IN THE - IN WHAT WAS BEGINNING
 TO BE DESCRIBED YESTERDAY AS SICK BAY. SCHIRRA'S COLD IS
 BETTER HE SAID BEFORE HE WENT TO SLEEP, AND HE FELT MUCH
 BETTER AFTER TAKING A DECONGESTANT TABLET LAST NIGHT BEFORE -
 WALT CUNNINGHAM TOOK ONE BEFORE HE WENT TO SLEEP. AT 48
 HOURS AND 05 MINUTES INTO THE FLIGHT, THAT IS OUR SITUATION.

END OF TAPE

SC HOUSTON, THIS IS APOLLO-7.
CAPCOM GO AHEAD 7.
SC ROGER. WE'VE GOT A LOCK UP IN THE COMP
CYCLE PROGRAM 21. COULD YOU GET A G AND N BEARING (GARBLED)
TELL ME ANYTHING ON WHAT TO DO TO CORRECT THAT? TO GET
OUT OF IT?
CAPCOM OKAY, I UNDERSTAND THAT YOU ARE LOCKED
UP INTO PROGRAM 21? IS THAT CORRECT?
SC GARBLED.
CAPCOM OKAY, STANDBY 7, WE'RE GETTING SOMEBODY
TO HELP US DOWN HERE.
SC ROGER.
CAPCOM APOLLO 7, HOUSTON.
SC GARBLED.
CAPCOM DONN, CAN YOU TELL US AT WHAT DISPLAY
YOU HAD IN THE PROGRAM WHEN YOU HIT THE PROCEED?
SC YES, I HAD - GARBLED.
CAPCOM COULD YOU SAY AGAIN? WE MISSED THE
DISPLAY.
CAPCOM APOLLO 7 HOUSTON. I UNDERSTAND YOU
HAD THE TIME IN THERE AND IT WAS GOING TO INTERGRATE AHEAD
TO FIGURE OUT WHERE YOU WERE, AND THAT IS THE PROCEDURE
YOU ARE TALKING ABOUT?
SC THAT'S RIGHT.
CAPCOM ROGER.
CAPCOM WHAT TIME DID YOU PUT IN THERE, APOLLO 7?
SC GARBLED.
PAO APOLLO CONTROL HOUSTON HERE. THE COMM
VIA TANANARIVE WAS A LITTLE ROCKY, BUT WE DID MAKE OUT
DONN EISELE REPORTED HE HAD ENTERED A PROGRAM INTO THE
COMPUTER AND GOT A CAUTION ALARM. SOMETHING WASN'T GOING
JUST RIGHT WITH THE COMPUTER. NO BIG CRISIS. WE WILL LOOK
AT IT AND TALK ABOUT IT SOME MORE OVER CARNARVON I AM SURE,
AT WHICH POINT WE WILL BE IN - DUE TO ACQUIRE THERE AT
48 HOURS 41 MINUTES INTO THE FLIGHT, 7 MINUTES FROM NOW.
AT 48 HOURS 34 MINUTES INTO THE FLIGHT, THIS IS APOLLO
CONTROL HOUSTON.

END OF TAPE

PAO APOLLO CONTROL HOUSTON, 48 HOURS, 42 MIN-
UTES INTO THE FLIGHT. WE HAVE JUST TAGGED UP WITH THE CREW
THROUGH CARNARVON AND HERE IS WHAT IT SOUNDS LIKE.
COMM ARIA 1, GO REMOTE.
CAPCOM APOLLO 7, HOUSTON THROUGH ARIA 1.
COMM ARIA 1, AOS.
CAPCOM APOLLO 7, HOUSTON THROUGH ARIA 1.
CAPCOM APOLLO 7, HOUSTON THROUGH ARIA 1.
CAPCOM APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.
WE'RE READING YOU 5 BY. APOLLO 7, HOUSTON THROUGH CARNARVON.
SC ROGER, HEAR YOU CAPCOM, HOUSTON.
CAPCOM ROGER, REAL FINE. DID YOU COME OUT OKAY
ON P21, DONN?
SC YES, IT FINALLY QUIT INTERGRATING, I'D
ALREADY ASKED HIM TO GO TO PU, SO HE WENT STRAIGHT TO PU.
CAPCOM OKAY, REAL FINE. I'VE GOT SOME DIS-
CUSSION ON THE PRIMARY EVAPORATOR TO TAKE UP WITH WALT HERE.
SC HE'S LISTENING, HE'S WRITING.
CAPCOM OKAY, THERE WILL BE A COUPLE OF PROCEDURES,
SO YOU MIGHT WANT TO COPY THIS DOWN. WHAT WE WOULD LIKE TO
DO IS TO DETERMINE THE STATUS OF THE PRIMARY WATER BOILER
AND THEREFORE, WE INTEND TO ACTIVATE THE PRIMARY EVAPORATOR
OVER THE STATESIDE PASS THIS REVOLUTION. SO WHEN YOU BRING THE
EVAPORATOR ON, WALT, WE WANT YOU TO OPEN THE BACK PRESSURE
VALVE MANUALLY FOR 2 SECONDS, SINCE WE'RE NOT SURE OF HOW
MUCH WATER IS IN THE EVAPORATOR AND THIS WOULD MINIMIZE ANY
POSSIBILITY OF CARRYING EXCESS WATER THROUGH THE STEAM DUCT
AND POSSIBLE FREEZING IT. THEN ON THE GROUND CUE OVER THE
STATES, WE WOULD LIKE YOU TO FIRST PUT THE GLYCOL EVAPORATOR
H2O FLOW SWITCH TO AUTO. SECOND PUT THE GLYCOL EVAPORATOR
STEAM PRESSURE TO MANUAL. THIRD, GO DECREASE FOR 2 SECONDS.
OBSERVE THE TEMPERATURE DECAY ON THE PRIMARY EVAPORATOR
OUTLET. IF YOU DON'T GET ANY DECAY, WE WANT YOU TO GO DECREASE
FOR 2 SECONDS MORE. IF YOU GET A TEMPERATURE DECREASE THEN,
WAIT 30 SECONDS, PLACE THE EVAPORATOR STEAM PRESSURE TO AUTO.
WE'LL WATCH IT ALL FROM THE GROUND, BUT IF YOU OSERVE ANY
ANOMALIES IN YOUR OUT OF GROUND CONTACT, WE WOULD LIKE YOU
TO TROUBLE-SHOOT PER THE MALFUNCTION PROCEDURES RECORDED ON
HIGH-BIT RATE ON BSE AND REPORT IT TO THE NEXT SITE. IF YOU
WANT ANY OF THIS REPEATED, I'LL GO OVER IT WITH YOU.
SC I COULD COPY ABOUT HALF THAT FAST,
AND I ONLY GOT THE FIRST THREE STEPS, JACK. THAT PRESSURE
OPEN FOR 2 SECONDS, DO YOU WANT ME TO DO THAT PRIOR TO GETTING
INTO THE STATES?
CAPCOM NO, WE WILL DO THIS WHEN WE HIT THE STATES,
SO WE CAN WATCH IT HERE. WE WILL TELL YOU WHEN WE'VE GOT

CAPCOM GOOD DATA AND THEN YOU BRING IT ON, OPEN IT FOR 2 SECONDS. THIS WILL ALL BE ON GROUND CUE. I'LL READ THESE STEPS AGAIN, A LITTLE SLOWER, WALT. FIRST STEP, H2O FLOW TO AUTO; SECOND, STEAM PRESSURE TO MANUAL; THIRD, DECREASE STEAM PRESSURE SWITCH TO DECREASE FOR AN ADDITIONAL 2 SECONDS. OBSERVE A - FOR A TEMPERATURE DECAY ON THE VAP-OUT TEMPERATURE. OKAY, IF YOU DON'T GET ANY TEMPERATURE DECAY, DECREASE THE STEAM PRESSURE FOR 2 ADDITIONAL SECONDS. THEN IF YOU GET A TEMPERATURE DECREASE ON THE VAP-OUT TEMPERATURE, WAIT 30 SECONDS THEN PLACE THE GLYCOL EVAP-OUT STEAM PRESSURE TO AUTO. OKAY, IF YOU GET ANY ANOMALIES AND YOU'RE OUT OF GROUND CONTACT, TROUBLE-SHOOT IT PER THE MALFUNCTION PROCEDURES, RECORDING IT ON HIGH BIT RATE AND WE'LL PICK YOU UP AT THE NEXT SITE.

SC ROGER, JACK, I GOT STEP 4. DECREASE STEAM PRESSURE FOR 2 SECONDS, WATCH THE GLYCOL EVAP-OUT TEMPERATURE DECREASE AND DISCONNECT SET.

CAPCOM OKAY, AFTER TEMP DECREASE IS OBSERVED, WAIT 30 SECONDS, THEN PLACE THE STEAM PRESSURE SWITCH TO AUTO.

SC I HAVE HERE DECREASE SOMETHING FOR 2 ADDITIONAL SECONDS.

CAPCOM OKAY, LET ME GO OVER IT AGAIN.

SC TWO SECONDS.

CAPCOM OKAY, YOU GO TO MANUAL, DECREASE THE STEAM PRESSURE FOR 2 SECONDS, THAT'S THREE. IF YOU DON'T GET ANY TEMPERATURE DECAY, DECREASE THE STEAM PRESSURE FOR 2 ADDITIONAL SECONDS. THAT'S STEP FOUR.

SC ROGER, I UNDERSTAND THAT IF I DON'T GET ANY PRESSURE DECREASE - TEMPERATURE DECREASE IN HOW LONG A TIME PERIOD?

CAPCOM ABOUT 30 SECONDS, GIVE IT 30 SECONDS, WALT, TO NOTE ANY TEMPERATURE CHANGE.

SC OPEN THE BACK PRESSURE FOR 2 SECONDS, ON YOUR CUE, (GARBLE) TO AUTO ON CUE. STEAM PRESSURE TO MANUAL, DECREASE PRESSURE FOR 2 SECONDS. WATCH THE GLYCOL EVAP-OUT TEMP DECREASE, IF NO TEMP DECREASE, IN 30 SECONDS - DECREASE STEAM PRESSURE FOR ANOTHER 2 SECONDS. IF I GET A DECREASE, I WAIT 30 SECONDS AND THEN GO TO AUTO. ANY ANOMALIES, I TROUBLE-SHOOT.

CAPCOM THAT'S GOOD, YOU GOT IT. OKAY, APOLLO 7 YOU MIGHT WANT TO TURN YOUR FM VOLUME UP, WE'RE ABOUT TO PICK UP HONEYSUCKLE HERE. WE'LL JUST BE STANDING BY HERE, WE DON'T HAVE ANYTHING SPECIAL FOR YOU.

SC OKAY, YOU MIGHT TURN (GARBLE) UP SO THAT THESE G AND N (GARBLE) TRANSMIT.

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CAPCOM
A LITTLE GARBLE.

SC
CAPCOM
CAPCOM
CAPCOM
CAPCOM

R A T E.

SC
CAPCOM

END OF TAPE

I DIDN'T COPY THAT, DONN. YOU WERE

AND WHAT RATE DO YOU WANT PUT IN.

OKAY, STANDBY.

APOLLO 7, HOUSTON.

APOLLO 7, HOUSTON.

APOLLO 7, HOUSTON. GOT AGHT OR RATE,

RATE, JACK

OKAY, STANDBY.

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 485245

183/1

CAPCOM APOLLO 7, HOUSTON.
SC ROGER, GO HOUSTON.
CAPCOM OKAY, DONN. WHAT WE WOULD LIKE TO
HAVE IS A SPACECRAFT MANEUVER RATE, A SUMMARY RATE 1 DEGREE
PER SECOND OR GREATER DAP WE WOULD LIKE YOU TO SET 4 DEGREES
PER SECOND IN THE RATE.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 490950 184/1

PAO THIS IS APOLLO CONTROL HOUSTON, 49 HOURS
9 MINUTES INTO THE FLIGHT. HAWAII IS DUE TO ACQUIRE MOMENTARILY
AND LET'S LISTEN.

CAPCOM APOLLO 7, HOUSTON WITH AN UPDATE.

CAPCOM APOLLO 7, DO YOU READ HOUSTON?

SC ROGER.

CAPCOM OKAY, DON. WE HAVE AN UPDATE ON DAP
RATE DEAD BAND WE'D LIKE YOU TO SET IN; WE WOULD LIKE YOU
TO SET IN TWO TENTHS OF A DEGREE PER SECOND FOR THE RATE
DEAD BAND FOR THIS P AND N ATTITUDE CONTROL TEST.

SC OKAY, I GOT THAT IN.

CAPCOM OKAY, REAL FINE.

SC JACK?

CAPCOM GO AHEAD.

SC I'M NOT READY TO DO THAT ONE DEGREE PER
SECOND JUST YET; USING TOO MUCH FUEL. JUST GO AHEAD AND PUT
IT IN G & N ATTITUDE HOLD AT DEAD BAND FOR TWO TENTHS RATE
AND THEN LET IT SIT AROUND HERE AS LONG AS YOU WANT TO LOOK
AT IT.

CAPCOM OKAY, YOU WANT. WE COPY THAT. WE HAVEN'T
PICKED UP HIGH BIT RATE HERE; WE'LL GIVE YOU A HACK AS SOON
AS WE HAVE HIGH BIT RATE.

SC OKAY. READY TO COPY OF LOGDATA.

CAPCOM ROGER; I'LL GIVE YOU THAT. OPPOSITE ON
THE FIRST. APOLLO 7, HOUSTON. WE HAVE HIGH BIT RATE; YOU
CAN SEARCH THE G & N ATTITUDE CONTROL TEST AND WALT, I WILL GIVE
YOU THE BLOCK DATA.

SC ROGER; THIS IS (GARBLE) NOW.

CAPCOM OKAY, BLOCK DATA FOR BLOCK NUMBER 6 AS
FOLLOWS: 033-4C PLUS 314 MINUS 1450. 52 PLUS 05 PLUS 094335.
34-3C PLUS 200 PLUS 1500. 53 PLUS 21 PLUS 42. 4119035-3B
PLUS 250 PLUS 1390. 054 PLUS 55 PLUS 07. 4143036 - 4A PLUS
250 MINUS 1659056 PLUS 46 PLUS 40. 4785037 - 3A PLUS 315 PLUS
1390058 PLUS 07 PLUS 174439. 3038 - 3A PLUS 283 PLUS 1374059
PLUS 42 PLUS 35. 4645.

SC ROGER, READ THAT CODE. 033 - 4C. 314
MINUS 1450. 0520509, 4335, 34 - 3B PLUS 200 PLUS 1500. 053
PLUS 21 PLUS 42. 4119035 - 315 PLUS 1390058 PLUS 07 PLUS
17. 4439. 38 - 3A PLUS 283 PLUS 1374059 PLUS 12 PLUS 85
AND 4645; OVER.

CAPCOM ROGER. WALT, WE HAD A TRANSITION FROM
HAWAII TO HUNTSVILLE AND I LOST A LITTLE BIT OF IT HERE.
THE SECOND BLOCK WAS 034 - 3C INSTEAD OF 3B. AND I LOST YOU
RIGHT AFTER 035 - 3B. COULD YOU GIVE ME THAT DOWN TO THE
BEGINNING OF 037 - 3A?

SC ROGER; I'LL PICK UP. 035 - 3B; I GOT
YOUR CORRECTION. 34 - 3C AND 035 - 3B PLUS 250 PLUS 1390.
254 PLUS 59 PLUS 07. 4143036 - 4A PLUS 250 MINUS 1659056
PLUS 46 PLUS 40. 4785; OVER.

CAPCOM ROGER, THAT'S GOT IT. WE COPIED LINES.

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 490950 184/2

CAPCOM I HAVE SOME TIME.

END OF TAPE

0
LL 0 7 MISSION COMMENTARY, 10/13/68, GET: 491950

185/1

CAPCOM APOLLO 7, HOUSTON.
SC GO AHEAD HOUSTON, APOLLO 7.
CAPCOM ON THIS PRIMARY EVAPORATOR ACTIVATION
WE ARE GOING TO WAIT UNTIL WE GET A RAD OUT TEMPERATURE
ABOVE 50 BEFORE WE START IT.
SC ROGER. DO YOU HAVE ANY IDEA ABOUT
WHAT TIME YOU WANT TO DO THAT? IT DOESN'T GET ABOVE 50
UNTIL AFTER WE HAVE BEEN IN A DAYLIGHT PASS MOST OF THE
TIME.
CAPCOM ROGER. WE ARE JUST DISCUSSING THAT
NOW. IT LOOKS LIKE THE WAY IT'S COMING UP, IT'S GOING TO
BE A LITTLE BIT.
SC ROGER. IT HASN'T BEEN COMING UP, IF
YOU ARE TALKING ABOUT THE EVAPORATOR OUTLET TEMPERATURE, I
ASSUME. THE ODDS OF IT COMING ABOUT 50, IT'S GOING TO BE
THE LATTER PART OF THE DAYLIGHT PASS.
CAPCOM NO, WE WERE TALKING ABOUT THE RAD OUT
TEMPERATURE, WALT, JUST SO WE CAN MAKE SURE THAT THE BOILER
IS GOING TO REALLY WORK.
SC OKAY, I CAN SHOW YOU A RAD OUT TEM-
PERATURE NOW AND IT'S RIGHT ABOUT 50.
CAPCOM OKAY, STAND BY HERE.
CAPCOM WE ARE ONLY SHOWING A RAD OUT OF 42
DEGREES AND WE ARE GOING TO CHECK CAL CURVE RIGHT NOW.
SC ROGER. I AM READING 49 ABOUT ON
BORDER.
SC RIGHT ON THE NOSE, 3 POINT SCALE.
LET'S SAY 45 TO 50.
CAPCOM OKAY.
CAPCOM APOLLO 7, HOUSTON.
SC GO, HOUSTON.
CAPCOM OKAY, DONN. ON THAT RAD OUT, WHEN
WE ARE READING 43 NOW AND THERE IS A BIG SPREAD BETWEEN
YOUR VALUE AND OURS, AND OURS IS CORRECT ACCORDING TO THE
CAL CURVE. SO IT WILL BE A LITTLE BIT YET BEFORE WE GET
TO ACTIVATION OF THE EVAPORATOR.
SC OKAY.
SC HOUSTON, APOLLO 7.
CAPCOM GO AHEAD, 7.
SC DO YOU HAVE VHF NOW?
CAPCOM AFFIRMATIVE. WE ARE RECEIVING VHF,
WE ARE SIMULTANEOUS ON CONSTANT.
SC OKAY, FINE. THOUGHT FOR A WHILE IT
SEEMED YOU WERE REALLY ON S-BAND.
CAPCOM APOLLO 7 CAN YOU TELL US WHAT DIREC-
TION YOU ARE POINTED RELATIVE TO THE SUN?
SC WHY DON'T YOU READ OUR GIMBAL ANGLES

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185/2

SC AND FIGURE IT OUT? YOU CAN PROBABLY
DO IT BETTER THAN WE CAN.

CAPCOM ROGER.

SC IT'S COMING IN THE LEFT SIDE WINDOW,
IT'S A LITTLE BIT FORWARD OF IT.

CAPCOM OKAY.

CAPCOM APOLLO 7, HOUSTON.

CAPCOM APOLLO 7, HOUSTON.

CAPCOM APOLLO 7, HOUSTON.

CAPCOM APOLLO 7, HOUSTON, WE ARE GOING TO
DELAY ACTIVATION OF THE PRIMARY EVAPORATOR UNTIL ASCENSION.
WE WILL CONTACT AT ASCENSION IN APPROXIMATELY 8 MINUTES.

CAPCOM APOLLO 7, HOUSTON. THIRTY SECONDS
TO LOS ANTIGUA.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 493950 186/1

CAPCOM APOLLO 7, HOUSTON THROUGH ASCENSION.
APOLLO 7, HOUSTON THROUGH ASCENSION.
SC ROGER. THIS IS APOLLO 7. WE'RE STANDING
BY FOR YOUR EVAPORATOR PROCEDURE. I CAN (CUT OFF)
CAPCOM OKAY, WALL. WE'RE GOING TO WAIT UNTIL WE
GET HIGH BIT RATE HERE. WE'VE GOT A KEYHOLE EFFECT WHICH IS
GOING TO DELAY OUR HIGH BIT RATE FOR MINUTE OR SO, AND THEN
WE'LL BE READY TO START.
SC ROGER.
CAPCOM APOLLO 7, HOUSTON. WE'RE READY TO START
ON THE PRIMARY EVAPORATOR TEST. YOU CAN OPEN THE BACK-
PRESSURE VALVE MANUALLY FOR 2 SECONDS.
SC ARE YOU READY TO RECEIVE THIS PROCEDURE?
CAPCOM OKAY. YOU WANT TO PUT YOUR WATER VALVE
TO AUTO?
SC WANT ME TO DECREASE FOR 2 SECONDS FIRST
DON'T YOU?
CAPCOM OKAY. WALL WE WANT TO GO AUTO FIRST ON
THE WATER VALVE.
SC (GARBLE) S-BAND.
CAPCOM OKAY. WALT, READ YOU 5 BY. YOU WANT TO
(CUT OFF)
SC THE DEPRESSURE CAME DOWN TO .15 AND
BICARB OPERATOR OUTLET PRESSURE IS COMING DOWN.
CAPCOM OKAY. UNDERSTAND.
SC I AM GOING TO GO AUTO ON THE STEAM PRESSURE
BECAUSE THE BICARB OPERATOR TEMPERATURE IS DOWN.
CAPCOM OKAY. WE'D LIKE YOU TO HOLD IT FOR
15 SECONDS.
SC DO WHAT?
CAPCOM HOLD OFF ON PUTTING THE STEAM PRESSURE
VALVE TO AUTO FOR 15 SECONDS HERE.
SC I HAD IT IN THERE - I JUST TOOK IT BACK.
CAPCOM OKAY.

END OF TAPE

PAO APOLLO CONTROL HERE AT 50 HOURS 8 MINUTES
 INTO THE FLIGHT. VIA TANANARIVE WE HAD THIS CONVERSATION.
 CAPCOM APOLLO 7 HOUSTON THROUGH TANANARIVE.
 SC ROGER, BOB, AND THE WATER BOILER SEEMS
 TO BE OPERATING NORMALLY NOW.
 CAPCOM OKAY, REAL FINE.
 SC IT EVAPORATED NORMALLY AFTER WE (GARBLED)
 CAPCOM I THINK HE SAID IT EVAPORATED NORMALLY
 SINCE HE LEFT ASCENSION. I WONDER IF HE IS EVAPORATING NOW.
 CAPCOM APOLLO 7, HOUSTON. 1 MINUTE LOS
 TANANARIVE. WE PICK UP ARIA 1 IN ABOUT 3 MINUTES. WE'LL
 HAVE CONTINUOUS COVERAGE THROUGH CARNARVON.
 SC (GARBLED) ROGER.
 SC APOLLO 7.
 CAPCOM GO AHEAD 7.
 PAO AND THIS IS APOLLO CONTROL. THAT CON-
 CLUDED THE CONVERSATION AND WHILE ARIA IS AVAILABLE, APPARENTLY
 THERE ARE NO PLANS TO CARRY ANY FURTHER CONVERSATIONS WITH
 THE CREW. EARLIER WE GAVE YOU A CITATION FROM THE AMOUNT OF -
 THE PERCENTAGE OF OXYGEN REMAINING, 82 PERCENT, IN POUNDS
 THAT GOES LIKE THIS: TANK 1, 265 POUNDS OF OXYGEN; TANK 2,
 268. AT 50 HOURS AND 10 MINUTES INTO THE FLIGHT, THIS IS
 APOLLO CONTROL HOUSTON.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 501740 189/1

PAO APOLLO CONTROL HOUSTON HERE, 50 HOURS,
17 MINUTES. WE ARE TALKING TO APOLLO 7 THROUGH CARNARVON.
SC HOUSTON, APOLLO 7.
CAPCOM GO AHEAD.
SC IN THE FLIGHT PLAN WE HAVE (GARBLE) ABOUT
5 PLUS 45 (GARBLE) CONTROL 7.
CAPCOM ROGER.
SC TOOK US 20 MINUTES. WE PERFORMED THAT DUR-
ING THE TRACKING EXERCISE FOR THE RENDEZVOUS. I'D LIKE TO
HOLD OFF THAT TYPE OF PPO UNTIL AFTER WE HAVE OUR THIRD BURN.
CAPCOM OKAY, STAND BY.
SC ROGER.
CAPCOM APOLLO 7, HOUSTON. WE CONCUR ON DELAYING
THE ATTITUDE CONTROLS TEST UNTIL AFTER BURN 3.
SC ROGER; I THINK WE MET THE REQUIREMENT JACK,
BUT IF WE CAN CHECK THE DATA FROM THE PREVIOUS REVS, WE PROB-
ABLY DIDN'T GET TO DO THAT ONE.
CAPCOM ALL RIGHT; LET'S DO THAT.
CAPCOM WE'LL CHECK IT 7. APOLLO 7, HOUSTON.
SC GO AHEAD.
CAPCOM WE'RE TRYING TO GET AN INERTIAL ATTITUDE
HOLD ANGLE THAT WE WOULD LIKE YOU TO GO TO, TO FURTHER EVAL-
ULATE THIS PRIMARY EVAPORATOR AND WE'LL TRY TO GET YOU THESE
ANGLES EARLY SO YOU CAN TAKE YOUR TIME MANEUVERING THERE.
WHAT WE WANT TO DO IS HEAT UP THESE RADIATORS AS MUCH AS
POSSIBLE AND IT WON'T HAVE TO BE A TIGHT ATTITUDE HOLD AT ALL,
JUST WANT TO GET AS MAXIMUM A HEAT ON THE RADIATOR AS WE
CAN TO GIVE US A LOT OF CONFIDENCE IN THAT PRIMARY EVAPORATOR.
SC ROGER; WHAT TYPE OF TIME ARE YOU
TALKING ABOUT?
CAPCOM NEXT STATE SIDE PASS.
SC ALL GO.
CAPCOM APOLLO 7, HOUSTON.
SC GO AHEAD.
CAPCOM ROGER; WE HAVE A ROLL PITCH AND YAW
GIMBAL ANGLE OF, FOR THIS EVAPORATOR EVALUATION.
SC GOOD.
CAPCOM OKAY, WE ROLL 218 PITCH 129 YAW 18.
SC JACK, IS THAT 18 DEGREES?
CAPCOM ROGER; 018, EXCUSE ME. YAW IS 018. YOU
CAN MANEUVER THERE AS SLOWLY AS POSSIBLE AND SET UP THE MAX
DEAD BAND AND WE'LL EVALUATE THIS OVER THE STATES.
SC OKAY, WHAT TIME WOULD YOU LIKE THIS
ATTITUDE?
CAPCOM FOR THE DAY PASS WALLY; OVER THE STATES.
SC OKAY, IT'LL BE APPROXIMATELY 50 HOURS AND
45 MINUTES.
CAPCOM OKAY, REAL FINE.
SC WHAT WE GOT 218 ROLL, 129 PITCH AND 018
YAW.

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 501740 189/2

YAW.

CAPCOM THAT'S 218 ROLL, 129 PITCH, 018 YAW.
SC COPIED THAT.

CAPCOM OKAY. AND 7, WE HAVE FINISHED WITH THE
LOADS, WE HAVE VERIFIED THEM WITH THE COMPUTERS; YOU'RE -
SC ROGER. JACK, DO YOU HAVE AN UPDATE FOR
US?

CAPCOM SAY AGAIN.
SC DO YOU HAVE AN UPDATE FOR US AFTER THAT

(GARBLE) LOAD?

CAPCOM ROGER; THAT WAS TSM AND S4B.
SC ROGER; DON'T WE DO THE UPDATE TO (GARBLE)?
CAPCOM OKAY; STAND BY. I HAVE YOUR NAV CHECK;

ARE YOU READY TO COPY?

SC OKAY, GO.

CAPCOM OKAY. SEXTANT TRACK TIME 051 PLUS 35
PLUS 0000 MINUS 2779 PLUS 02505. 1549.

SC ROGER; 051350000 MINUS 2779 PLUS 02505,
1549; OVER.

CAPCOM ROGER.
SC CORRECT READ BACK?
CAPCOM THAT'S A CORRECT READ BACK; THAT'S

154.9.

SC 154.9; ROGER AND COPY THAT.

CAPCOM OKAY.

SC OKAY, IT LOOKS LIKE WE'RE RIGHT ON,

DOESN'T IT?

CAPCOM STAND BY.
SC (GARBLE) UPDATES.

END OF TAPE

PAO APOLLO CONTROL HERE AT 50 HOURS 42 MINUTES INTO THE FLIGHT. MOMENTARILY WE EXPECT TO BE TALKING TO APOLLO 7 THROUGH HAWAII. LETS LISTEN.

CAPCOM APOLLO 7 HOUSTON THROUGH HAWAII.
SC ROGER HOUSTON. WE'RE DRIFTING IN ATTITUDE

NOW.

CAPCOM ROGER, REAL FINE. WALLY, WHEN WE HIT THE STATES WE'D LIKE TO SWITCH OVER TO A MIN DEAD BAND AS LONG AS WE ARE HOLDING ATTITUDE FOR THIS RADIATOR- OR EVAPORATED EVALUATION. WE'D LIKE TO SWITCH OVER TO A MIN DEAD BAND AND WE'LL KILL THAT DTO THAT'S IN AN ATTITUDE CONTROL TEST AT THE SAME TIME. I WILL GIVE YOU A CALL OVER CALIFORNIA WHEN WE WOULD LIKE TO SET IN THE MIN RATE.

SC THE DEAD BAND IS (GARBLED) IT'S ABOUT 5 POUNDS AN HOUR AND I HAVE DONE THAT DURING THE RENDEZVOUS MANEUVER.

CAPCOM ROGER. WE UNDERSTAND THAT. THIS WILL ONLY BE FOR A MINIMUM OF 10 MINUTES.

SC BILL, THAT'S ABOUT ONE POUND.

CAPCOM I MEAN -

SC PRIOR TO THE SPS BURNS ABOUT 5 TO 10 MINUTES EACH. (GARBLED)

SC AND BY THE WAY, HOUSTON, HAWAII IS PART OF THE UNITED STATES NOW.

CAPCOM ROGER, I UNDERSTAND, WALLY.

SC YOU ARE SHOWING YOUR AGE, JACK.

SC HOUSTON, THIS IS APOLLO 7.

CAPCOM GO AHEAD 7.

SC THERE IS SOMETHING WE HAVE NEVER MADE NOTE OF BEFORE. IT HAPPENED DURING SPACECRAFT TESTS AND DOES HERE AS WELL. WHEN THE 12TH MANEUVER IS PUT IN, THE GIMBAL DRIVES REFLECT THAT MANEUVER EVEN THOUGH THE CLUTCH CURRENT IS OFF. PLUS OR MINUS ABOUT A HALF A DEGREE.

CAPCOM ROGER, I UNDERSTAND.

SC IT'S SOMETHING THAT NORMALLY MIGHT SURPRISE SUBSEQUENT CREWS.

CAPCOM OKAY, WE COPY.

SC NO PROBLEM.

SC HOUSTON, THE REASON WE ARE RESISTING BURNING UP FUEL IS THAT WE'RE NOT REALLY -

SC WE JUST HAD A GOOD VIEW OF A CONTRAIL ENROUTE TO HAWAII.

CAPCOM ROGER. OPPOSITE OMNI, 7.

SC ROGER.

CAPCOM WALLY, WE ARE HAVING SOME MORE DISCUSSION ON THAT MIN RATE OVER THE STATES HERE. WE'LL LET YOU KNOW.

SC WE'RE RIGHT ON THE (GARBLED) MAKING AN ORBIT.

CAPCOM ROGER, WE UNDERSTAND.

SC IT'S STILL TWO UPDATES LATER.

SC ON IT 02, WE LOG VALID RANGE.

END OF TAPE

CAPCOM APOLLO 7, HOUSTON.
 SC GO AHEAD.
 CAPCOM ROGER. WE STILL WANT YOU TO GO AHEAD
 AND FIT IN THAT MIN RATE, COMPLETE THIS G&N ATTITUDE CON-
 TROL TEST. THIS WILL BE THE MINIMUM COST FUEL-WISE RIGHT
 NOW.
 SC ROGER. THE (GARBLE) YOU GOT HERE IS
 EXACTLY THE SAME.
 CAPCOM ROGER, WE UNDERSTAND.
 SC OKAY. I DON'T THINK YOU COULD UNDER-
 STAND REAL WELL, WE ARE STILL TESTING.
 CAPCOM ROGER, UNDERSTAND.
 SC (GARBLE) BE PREPARED TO DEBRIEF ON
 THIS SUBJECT WHEN WE GET BACK.
 CAPCOM YES SIR.
 CAPCOM ROGER, WE ARE TIMING RIGHT NOW. WE
 WILL GIVE YOU A MARK IN 10 MINUTES AND THE TEST WILL BE
 COMPLETE.
 SC ROGER.
 SC DEKE, YOU LOOK LIKE WIDE OPEN TODAY.
 CAPCOM ROGER.
 SC (GARBLE) A LITTLE (GARBLE) OFF SHORE.
 LIKE YOU HAVE ABOUT THREE OR FOUR (GARBLE) TODAY.
 CAPCOM OKAY, I HAVEN'T BEEN OUTSIDE FOR
 ABOUT 6 HOURS SO I DON'T KNOW.
 SC JACK, AFTER THIS G&N BURN, DO YOU
 WANT US TO HOLD IT AND LET'S SEE IF THE (GARBLE)
 CAPCOM ROGER, WALLY. AFTER WE GET THROUGH
 THIS, YOU'VE GOT ABOUT 4 MINUTES LEFT, THEN HOLD ATTITUDE
 IN THE CHEAPEST WAY POSSIBLE.
 SC ROGER.
 CAPCOM AND AS SOON AS WE HIT THE NIGHT PASS,
 YOU ARE ON YOUR OWN.
 SC PEARL HARBOR LOOKED BEAUTIFUL TODAY.
 CAPCOM SAY AGAIN, WALLY.
 SC I SAID THE HARBOR LOOKED BEAUTIFUL
 TODAY. WE TOOK A LOT OF GOOD PICTURES WITH THE HASSELBLAD
 WE GOT ONE OF HOUSTON, ONE OF TAMPA, THAT'S ABOUT THE
 RATE. IT TAKES ABOUT 3 MINUTES TO RECOCK IT.
 CAPCOM ROGER, WE COPY.
 SC PROBABLY THE LOOP INSIDE IS JAMMING
 IT UP. IT'S IN THE BOX ITSELF, NOT IN THE MAIN SHUTTER
 MECHANISM AND NOT IN THE MAGAZINE.
 CAPCOM OKAY, WE COPY THAT.
 SC WE RECOMMEND CARRYING AT LEAST TWO
 OF THESE BOXES ALONG AND THE ACCESSORIES TO GO WITH THEM.
 CAPCOM ROGER, WE COPY THAT.
 SC THAT'S IT.

SC HOUSTON, A LOT OF WATER HASN'T BEEN BOILING SINCE WE - HAVE YOU BEEN PUTTING ALL THE HEAT ON THE RADIATOR OR (GARBLE)

CAPCOM WE'VE BEEN TRYING TO GET THE MAX HEAT ON THE RADIATOR, WE EXPECT IT TO START BOILING HERE. WE ARE SHOWING A RAD OUT NOW OF 50.

SC ROGER, SO AM I, BUT MY GLYCOL EVAPORATOR OUTLET SENSORS STILL SEEING 48. JACK, GIVE ME A READING WHEN WE GO OFF THIS DAP CONTROL.

CAPCOM ROGER. YOU HAVE GOT ABOUT A MINUTE AND THREE-QUARTERS.

SC OKAY, THEN I'LL (GARBLE). JUST A SECOND, SHE'S STARTING TO BOIL. LET (GARBLE)

CAPCOM ROGER, WE CONCUR.

SC HOW LONG WILL THAT STAY IN THE SCS MONITOR?

CAPCOM STAND BY ONE.

SC ARE YOU OBSERVING MY STEAM PRESSURE NOW?

CAPCOM FOR MOVE IN, DARKNESS OCCURS, WALLY ABOUT 5120 5, 5125.

SC THEN WE ARE GOING TO STOP HOLDING ATTITUDE, RIGHT?

CAPCOM AFFIRMATIVE.

SC OKAY.

SC HOUSTON, APOLLO 7. ARE YOU READING MY PRIMARY EVAPORATOR NOW?

CAPCOM AFFIRMATIVE, 7.

SC ROGER. YOU GOT THE EVAPORATOR OUTLET TEMPERATURE OVERSHOT ALL THE WAY DOWN TO ABOUT 34.

CAPCOM WE CONFIRM, AND WE SHOW IT COMING BACK UP.

CAPCOM OKAY APOLLO 7, WE'VE COMPLETED 10 MINUTES IN MIN DEADBAND, YOU CAN COME OUT OF MIN DEADBAND AND GO TO THE CHEAPEST WAY POSSIBLE FOR ATTITUDE HOLD.

SC ROGER, SCS.

CAPCOM APOLLO 7, HOUSTON.

SC THIS IS APOLLO 7, GO AHEAD.

CAPCOM ROGER. WE FEEL THAT FOR ALL PURPOSES YOUR PRIMARY EVAPORATOR IS WORKING NORMALLY. YOU CAN DISCONTINUE ATTITUDE HOLDING.

SC ROGER, ALL CHANNELS OFF.

CAPCOM ROGER.

SC SHALL I GO AHEAD AND OPERATE THE GLYCOL EVAPORATOR THEN AND SEE IF WE HAVE A REOCCURRENCE OF THE EARLIER TROUBLE?

CAPCOM AFFIRMATIVE AND WE WILL WATCH IT TOO.

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 505200

191/3

SC

THANK YOU.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 511200 192/1

PAO THIS IS APOLLO CONTROL HOUSTON, 51 HOURS, 15 MINUTES INTO THE FLIGHT. YOU HEARD DURING THAT PASS THAT ANY AND ALL CONSIDERATION - ANY AND ALL CONCERNS ABOUT THE PRIMARY EVAPORATOR AND SUSPECTED PROBLEMS HAVE BEEN PUT TO BED. THE PRIMARY EVAPORATOR WAS PRONOUNCED WORKING NORMALLY IN ALL RESPECTS BY THE GROUND AND BY THE CREW IN SPACE. WE ALSO HEARD WALLY SCHIRRA REPORT HE HAD GOTTEN SEVERAL GOOD PICTURES. HE SAID HE THOUGHT HE GOT A GOOD SHOT OF HOUSTON AND A GOOD SHOT OF TAMPA, FLORIDA, AND EXPLAINED SOME DIFFICULTY THEY HAD HAD WITH A MECHANISM ON THE CAMERA, WHICH I DIDN'T FULLY UNDERSTAND. AT - WITH THE SPACECRAFT HALF-WAY ACROSS THE ATLANTIC OCEAN, WE'RE 51 HOURS, 16 MINUTES INTO THE FLIGHT, ON THE 33RD REVOLUTION. THIS IS APOLLO CONTROL HOUSTON.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 512930 193/1

PAO APOLLO CONTROL HERE, 51 HOURS, 29 MIN-
UTES FROM ASCENSION, WE HAVE THIS CONVERSATION.
CAPCOM APOLLO 7, HOUSTON THROUGH ASCENSION.
SC APOLLO 7, ROGER, LINE CLEAR.
CAPCOM WE'RE STANDING BY.
SC HOUSTON, APOLLO 7, DO YOU READ?
CAPCOM I READ YOU 5 BY. WE'RE STANDING BY.
SC I TOOK THE CAMERA APART AND USED SOME
NOSE CREAM AND CLEANED UP SOME OF THE INNER GEARS AND IT
LOOKS LIKE IT IS WORKING ALRIGHT NOW.
CAPCOM ROGER, COPY, AND I HAVE A FLIGHT PLAN
UPDATE ON THAT - THE PAD FOR THE STAR - SEXTANT STAR COUNT
WHENEVER YOU ARE READY TO COPY.
SC GO AHEAD WITH YOUR FLIGHT UPDATE PLAN,
JACK.
CAPCOM OKAY, GETFR WILL BE 53 PLUS 36, ROLL
WILL BE 40, PITCH WILL BE 92, DELAY THAT ROLL. ROLL WILL
BE 4, PITCH WILL BE 92, YAW WILL BE 35 NINER. GET OF SUN-
SET MINUS 12 WILL BE 54 PLUS 18, ROLL WILL BE 184, PITCH 97,
YAW 35 NINER.
SC ROGER, GET SUNRISE 53 PLUS 36, ATTITUDE
004 FOR ROLL, PITCH 092, YAW 35 NINER. SUNSET MINUS 12 MIN-
UTES, WILL BE 54 PLUS 18, ROLL 184, PITCH 097, YAW 35 NINER.
CAPCOM ROGER, THAT'S CORRECT.
SC OKAY. HOUSTON, APOLLO 7.
CAPCOM GO AHEAD, WALLY.
SC ROGER, WE STILL HAVE RESERVATIONS ABOUT
THE SPS ENGINE. IT LOOKS GOOD TO US, SO FAR, BUT WE DON'T
HAVE ANY DATA FROM YOU THOUGH.
CAPCOM OKAY, STANDBY.
CAPCOM APOLLO 7, HOUSTON.
SC GO AHEAD
CAPCOM WALLY, COULD YOU CONFIRM YOUR RESERVATIONS
ABOUT THE SPS ENGINE THAT HAVE TO DO WITH THE GPI MOVEMENT
THAT YOU OBSERVED.
SC (GARBLE) WE HAD A MISSION RULE WITH THE
FLIGHT DIRECTOR, THAT WE WOULD NOT GO INTO THE SMS WHICH IS
RESERVED UNTIL WE KNEW THAT WE HAD A GOOD SPS ENGINE.
CAPCOM OKAY, WE COPY.
SC ROGER, I'D LIKE ONE MORE THING.
CAPCOM OKAY.
SC (GARBLE)
CAPCOM WE UNDERSTAND. STANDBY (GARBLE).

END OF TAPE

CAPCOM APOLLO 7, HOUSTON, THROUGH TANANARIVE.
SC ROGER. WE GOT A REPORT (GARBLE) FOR THE
ALIGNMENT, MINUS .420 MINUS .175 PLUS .149 (GARBLD).
CAPCOM ROGER, DONN, I'VE GOT A .175 A .149, I
DIDN'T CATCH THE FIRST ONE.
SC THE FIRST ONE WAS A MINUS .420.
CAPCOM .420 A TRIANGLE DIFFERENCE OF 4 BALLS 1
AND SAY AGAIN TO START.
SC (GARBLD) AND ON THE ANGLES THE FIRST
WAS A MINUS, SECOND WAS A MINUS, THE THIRD WAS A PLUS.
CAPCOM ROGER, COPY, AND WALT, IS WALLY ON
THE LINE? APOLLO 7 HOUSTON.
SC SCHIRRA SPEAKING.
CAPCOM ROGER. ABOUT THE SPS PROBLEM, AFTER
DISCUSSING DOWN HERE, OUR FEELING IS THAT THE SPS IS GO.
HOWEVER, WE HAVE A DAP SERVICE MODULE RCS DEORBIT CAPABILITY
AT THE PRESENT TIME, AND WE ARE WITHIN 10 FEET PER SECOND OF
AN SPS SERVICE MODULE RCS DEORBIT CAPABILITY.
SC ROGER. THAT WAS OUR FIGURING TOO. WE'D
LIKE TO HOLD THAT RESERVE AS LONG AS POSSIBLE. AFTER THE
FULL TURN WE'LL GET TO THE LOWER (GARBLE), I THINK WE'LL
SUM UP AFTERWARDS.
CAPCOM WALLY, WE AREN'T ABLE TO READ YOU THIS
TIME WITH THAT LAST TRANSMISSION OVER CARNARVON.
SC ROGER.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 515150 195/1

PAO AND THIS IS APOLLO CONTROL, 51 HOURS, 51 MINUTES INTO THE FLIGHT. WE WILL BE IN TOUCH WITH THE SPACECRAFT THROUGH CARNARVON; THERE GOES THE FIRST CALL.

SC (GARBLE) ON THE (GARBLE)

CAPCOM ROGER APOLLO 7; WE DON'T HAVE DATA YET.

SC ROGER. (GARBLE) HOLD A SECOND. THIS IS (GARBLE) ANGLE.

SC OKAY, STAND BY. I DID THE FINAL (GARBLE) TEST AND USED (GARBLE) TRIANGLE DIFFERENCE BY LOADS, (GARBLE) ANGLES PLUS 0P1 MINUS 049 PLUS 017; OVER.

CAPCOM OKAY, COPY THAT WALT.

SC HOUSTON.

CAPCOM APOLLO 7, HOUSTON.

SC GO AHEAD.

CAPCOM GIVE ME A GEP, AN APPROXIMATE GEP, THAT YOU DID AT FINAL LINE SO THAT WE CAN COMPUTE SOME GENERAL DRIP RATES.

SC ROGER. THE LINE IS CONSIDERED AT ABOUT 51 40.

CAPCOM 51 40.

SC AFFIRMATIVE.

CAPCOM ROGER, COPY.

SC IS THIS THE FIRST ONE OR THE SECOND ONE JACK; HE DIDN'T TELL US.

CAPCOM STAND BY.

SC THE FIRST ONE WAS ABOUT 51 40. I THINK THAT'S THE ONE YOU WANT FOR YOUR DRIP CHECK.

CAPCOM OKAY, 7, THE FIRST ONE 51 40 WILL BE FINE.

SC ROGER; OVER.

CAPCOM APOLLO 7, HOUSTON. DO YOU ALSO HAVE THE TIME YOU DID THE FINAL LINE CHECK SO WE CAN GET THAT ONE TOO?

SC THAT WAS 51 51.

CAPCOM OKAY.

SC (GARBLE)

CAPCOM ROGER; COPY THAT.

CAPCOM APOLLO 7, HOUSTON. WE FEEL THAT ON THE BASIS OF WHAT DON DID ON THE DAYLIGHT ALIGN TEST, THAT YOU CAN DELETE THE P51 WHICH COMES AT 55 PLUS 00 IN THE FLIGHT PLAN; DO YOU CONCUR?

SC AFFIRMATIVE. ROGER; WE CONCUR.

CAPCOM OKAY, YOU CAN DELETE IT.

SC ROGER. JACK, IF WE HAPPEN TO BE IN THE PHASE OF A LATTITUDE, I MIGHT TAKE ANOTHER CRACK AT IT, BUT -

CAPCOM THAT'S FINE WITH US.

SC OKAY. HOUSTON, APOLLO 7.

CAPCOM GO AHEAD 7.

SC ROGER. WHEN YOU TALK ABOUT THE SPS RESULTS NOW THAT YOU HAD OBSERVED ON THE GROUND?

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 515150 195/2

CAPCOM GO AHEAD.
SC WHAT DID YOU OBSERVE?
CAPCOM OKAY, STAND BY.
CAPCOM APOLLO 7 HOUSTON. ON THE, WE RE-LOOKED
AT ALL THE STRIP CHARTS-ON THE SPS OPERATION, SMALL VALVES,
THE TEMPERATURES, EVERYTHING ON THE SPS APPEARS NORMAL.
SC WAS THAT A CHANGE OF (GARBLE)
CAPCOM OKAY -
SC WITH PERMISSION, I WOULD LIKE TO ADD THIS.
(GARBLE) BURN BEFORE I GIVE OUT THE SMRS -
CAPCOM SAY AGAIN ON THE SPS NUMBER 3 BURN?
SC I WOULD LIKE TO GET THE SPS NUMBER 3 GRID
IN BEFORE I EAT INTO THE SMRCS FUEL BUDGET.
CAPCOM ROGER; WE'RE GONNA LOOK AT THAT.
SC ROGER.
CAPCOM WE ARE ABOUT 1 MINUTE LOS. CARNARVON
WILL PICK YOU UP IN GUAM IN ABOUT 5 MINUTES.
SC ROGER.
PAO AND WE'RE JUST ABOUT, OR HAVE LOST SIGNAL
THROUGH CARNARVON SO WE SHUT THE WIRE DOWN NOW; WE HAVE HAD
ADDITIONAL DISCUSSION HERE REGARDING PROPELLANT PATHS. YOU
RECALL THAT THIS IS A SUBJECT THAT IS DIFFICULT TO UNDERSTAND
WITHOUT LOOKING AT THE CHARTS BUT WE HAVE ESSENTIALLY TWO
WAYS TO LEAVE ORBIT AND RETURN TO EARTH. ONE THROUGH WHAT
WE CALL THE HYBRID MODE, USING THE RCS THRUSTERS AND THE
OTHER USING THE SPS ENGINE AND WE ARE SLIGHTLY UNDER ONE RED LINE
BUT THE CONTROLLERS HERE FEEL LIKE WE ARE MORE THAN ADEQUATE
IN THE OTHER MODE AND THAT HAS BEEN A POINT UNDER DISCUSSION
BETWEEN THE CREW AND THE CONTROL CENTER THESE LAST SEVERAL
PASSES. AT 51 HOURS, 1 MINUTE INTO THE FLIGHT, THIS IS
APOLLO CONTROL HOUSTON.

END OF TAPE

PAO THIS IS APOLLO CONTROL IN HOUSTON 52 HOURS 10 MINUTES INTO THE FLIGHT. WE ARE IN TOUCH WITH THE SPACECRAFT THROUGH GUAM AND HERE IS HOW IT SOUNDS.

CAPCOM APOLLO 7, HOUSTON.
 SC APOLLO 7.
 CAPCOM ROGER, READ YOU 5 BY.
 SC GARBLED
 CAPCOM SAY AGAIN
 SC NAVIGATE BY SUNRISE AND THE SEXTANT.
 CAPCOM ROGER. IF YOU DECIDE TO DELETE THE P52 REALINE AT 55 HOURS IN THE FLIGHT PLAN YOU MAY GO AHEAD WITH YOUR G AND N AND SPS POWER DOWN EARLY AT YOUR OPTION.
 SC HOUSTON, APOLLO 7.
 CAPCOM GO AHEAD.
 SC THIS WILL BREAK YOU UP. WE'RE HAVING COMPETITION TO SEE WHO CAN GET THE EXERGENIES FIRST.
 CAPCOM ROGER. I SAY AGAIN THAT IF YOU DECIDE TO DELETE THAT P52 REALINE AT 55 PLUS 00 YOU CAN GO AHEAD AND POWER DOWN THE G AND N AND SPS EARLY AT YOUR OPTION.
 SC ROGER, UNDERSTAND THAT, THANK YOU.
 CAPCOM GO AHEAD 7.
 SC ROGER. WE HAVE S-4B AT THIS TIME THROUGH THE SEXTANT.
 CAPCOM ROGER.
 SC HOW FAR AWAY IS IT NOW, JACK?
 CAPCOM STANDBY, I'LL GET IT.
 SC GREAT.
 CAPCOM STANDBY, WALT, WE'LL GET IT UP TO YOU.
 SC JACK, THAT SMALL PANEL LIGHTS ARE -
 CAPCOM SAY AGAIN, 7.
 SC THE SMALL PANEL LIGHTS THAT WERE NOT LIGHTED WAS THE (GARBLE) PANEL.
 CAPCOM ROGER, COPY.
 SC MINUS 0 (GARBLED)
 CAPCOM APOLLO 7, HOUSTON. THE S-4B IS 312 MILES AWAY.
 SC ROGER, WE'RE SEEING IT LOUD AND CLEAR IN HERE. I DON'T KNOW IF IT WILL HOLD UP THROUGHOUT THE ENTIRE DAY PASS BECAUSE WHEN I GET THIS ORANGE BACKGROUND FROM THE 6 LINER PAD IT MIGHT BLOT IT OUT, BUT I'LL KEEP YOU ADVISED.
 CAPCOM OKAY. YOU ARE 1 MINUTE LOS GUAM, HAWAII IN 7 MINUTES.
 SC ROGER (GARBLED)
 CAPCOM ROGER, WE'LL GET YOU ONE. IF I LOSE YOU HERE WE'LL GET IT TO YOU OVER HAWAII.
 SC ROGER.
 CAPCOM APOLLO 7, READY WITH THE UPDATE?
 SC ROGER.

APOLLO 7 MISSION COMMENTARY, 10,13,68, GET: 520950

196/2

CAPCOM REV 33 TET OF THE NODE 52 PLUS 04 PLUS
32. LONGITUDE 139.2 DEGREES EAST. RIGHT ASCENSION 05 PLUS
54.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 521750 197/1

PAO THIS IS APOLLO CONTROL HOUSTON, 52 HOURS,
17 MINUTES. WE'RE ABOUT TO ACQUIRE THROUGH HAWAII. WE'LL
STANDBY FOR THAT PASS.

CAPCOM APOLLO 7, HOUSTON THROUGH HAWAII.

SC HELLO HOUSTON, ROGER (GARBLE) THAT
SIVB I THINK WHAT HAPPENED, IS THE AUTO OPTICS QUIT WORKING
OR IT WASN'T WORKING RIGHT AND I SAW IT GO OUT ON TOP OF
THE SEXTANT AND I NEVER WAS ABLE TO RECOVER IT.

CAPCOM ROGER, COPY.

SC UP TO THE TIME IT HAPPENED, IT SEEMED
TO BE WORKING PRETTY WELL I HAD DONE A FEW MARKS AND IT
SEEMED TO BE PULLING IT IN A LITTLE CLOSER TO THE CENTER
ALTHOUGH NOT AS WELL AS I HAD DONE ON THE PREVIOUS RUN.

CAPCOM OKAY, WE COPY THAT.

SC I THINK IT DESERVES A PRETTY GOOD PLUS
SO FAR.

CAPCOM APOLLO 7, I DIDN'T COPY THAT LAST PART.

SC ROGER, THIS IS CDR I SAY IT DESERVES A
PRETTY GOOD PLUS SO FAR.

CAPCOM OKAY, REAL FINE.

SC DON'T WANT THE BOYS IN BOSTON TO GET
TOO EXCITED YET.

CAPCOM ROGER.

HTV HUNTSVILLE AOS.

CAPCOM GO AHEAD 7.

SC NEGATIVE TRANSMISSION.

CAPCOM ALRIGHT.

HTC HUNTSVILLE CANNOT ACHIEVE A VALID RANGE.
AND TWO WHEEL LOG AGC TOO LOW, AGC TOO LOW.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 522750 198/1

SC (GARBLE) MARK 20 CALIFORNIA.
CAPCOM ROGER; COPY.
CAPCOM WALLY, COMING OVER TEXAS AND ABOUT IN 3
OR 4 MINUTES WE'D LIKE YOU TO TURN YOUR S BAND VOLUME UP
AND WE'RE GOING TO BE TRANSMITTING S BAND ONLY.
SC ROGER; AT 21 EAST COAST, WEST COAST,
CALIFORNIA, IS DUE TO ARRIVE US SHORTLY.
CAPCOM OKAY.
SC GIVE US A CALL WHEN YOU WANT THE VOLUME
UP JACK AND -
CAPCOM OKAY, YOU CAN TURN S BAND VOLUME UP NOW
WE ARE JUST ABOUT TO ACQUIRE TEXAS.
SC CORRECTION ON (GARBLE) UPPER THIRD OF
CALIFORNIA.
CAPCOM ROGER.
SC THE HASSELBLAD IS WORKING FINE WITH A
COMBINATION OF ORAL GREASE REMOVAL AND NOSE CREAM.
CAPCOM ROGER; COPY THAT. APOLLO 7, HOUSTON,
TRANSMITTING S BAND FOR BACK UP CHECK.
SC ROGER; WE READ YOU LOUD AND CLEAR.
CAPCOM YOU ARE FINE.
SC - LOOKS VERY NICE TODAY; A LOT OF STAR
2, IT LOOKS LIKE PRETTY GOOD WEATHER FOR THE OLYMPICS.
CAPCOM ROGER; COPY THAT.
SC (GARBLE) 26 (GARBLE) WAS A STRAIGHT SHOT
DOWN AT THE COAST OF MEXICO. JUST SOUTH OF MONTERREY.
CAPCOM ROGER; COPY.
SC LOOKS LIKE A NICE DAY TO BE ON THE BEACH.
CAPCOM IT SURE DOES.
SC WHAT'S YOUR TEMPERATURE DOWN THERE TODAY?
CAPCOM IT'S PRETTY NICE DOWN HERE; WE HAD FOG
IN THE MORNING.
SC ROGER. MAGAZINE Q 24; EASTERN COAST.
HOUSTON, THIS IS YOUR CAPTAIN SPEAKING AND WE ARE FLYING
ACROSS THE GULF OF MEXICO. WE ARE CLEARED TO THE YUCATAN
PENINSULA. THE WEST COAST OF THE YUCATAN LOOKS LOUD AND CLEAR
AND WE WILL GIVE YOU A REPORT ON CLOUDS ON ARRIVAL.
CAPCOM OKAY, AND WE ARE GOING BACK TO VHF IN
JUST A FEW MINUTES HERE SO YOU CAN TURN THE S BANDS ON IN
THE GROUND IN JUST A FEW MINUTES.
SC ROGER. 35 AND 26 WEST COAST ON VHF; WE
ARE CROSSING NOW.
CAPCOM ROGER; COPY.
SC THE MAGAZINE WE ARE REFERRING TO IS Q
FOR QUEEN.
CAPCOM ROGER.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 524250

199/1

SC GARBLED
SC GARBLED. WE'RE HERE IN NORTHEASTERN
SOUTH AMERICA.
CAPCOM ROGER, COPY.
SC SOUNDS LIKE YOU GOT SOME SCENIC MUSIC
COMING UP.
CAPCOM APOLLO 7, HOUSTON. COULD WE GET YOU
TO SWITCH THE BIOMED SWITCH TO THE CDR?
SC FOOLS RUSH IN WHERE ANGELS FEAR TO TREAD.
CAPCOM ROGER WE COPY YOUR SWITCH POSITION.
SC ROGER. ARE YOU PLAYING MUSIC, JACK?
CAPCOM NEGATIVE.
SC THERE'S A SONG, "FOOLS RUSH IN WHERE
ANGELS FEAR TO TREAD." THAT'S WHY THE REMARK. WE HAVE
SOME VERY GOOD MUSIC UP HERE.
CAPCOM IT ISN'T ME.
SC OKAY. HOW'S THE RADAR AT THIS TIME?
SC OKAY. HOUSTON RADIO STATION, JUST HEARD
THE CALL, IT'S FM PROBABLY.
CAPCOM ROGER, READ YOUR COPY.
SC YOU MIGHT CALL AROUND TWON AND FIND OUT
WHO PLAYED "FOOLS RUSH IN WHERE ANGELS FEAR TO TREAD" AND ABOUT
2 HOURS AND 26 MINUTES - 25 MINUTES.
CAPCOM ROGER, WE COPY

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 525700

200/1

PAO THIS IS APOLLO CONTROL 52 HOURS 56
MINUTES INTO THE MISSION. APOLLO 7 IS AT ASCENSION NOW.
WE WILL STAND BY THROUGH PASS.

CAPCOM APOLLO 7, HOUSTON STANDING BY, ASCEN-
SION.

SC ROGER, WE READ YOU LOUD AND CLEAR.

CAPCOM ROGER.

PAO THIS IS APOLLO CONTROL. ASCENSION
HAS LOS NOW. IN THE CONTROL CENTER, WE ARE IN THE PROCESS
OF CHANGING SHIFTS, FLIGHT CONTROLLERS FROM GLENN LUNNEY'S
TEAM ARE BRIEFING THEIR COUNTERPART ON THE GENE KRANTZ
TEAM. ASTRONAUT RON EVANS HAS RELIEVED ASTRONAUT JACK
SWIGERT AS CAPCOM, SO AT 53 HOURS 02 MINUTES, THIS IS
MISSION CONTROL HOUSTON.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 53:12:50 201/1

PAO THIS IS APOLLO CONTROL, 53 HOURS,
12 MINUTES. APOLLO 7 IS OVER TANANARIVE GETTING AN UPDATE
AT THIS TIME.

CAPCOM H2 FUEL CELL PURGE.
SC ROGER. THAT'S 54 FOR A FULL VIEW AND
HYDROGEN PURGE AT 5500.

CAPCOM ROGER, AT 57 PLUS 50 - O2 OXYGEN FUEL
CELL PURGE.

SC ROGER, O2 PURGE AT 5750.

CAPCOM ROGER, END OF UPDATE.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 11/13/68, GET: 543000 202/1

PAO THIS IS APOLLO CONTROL 54:29 INTO THE MISSION. WE HAVE ABOUT 6 1/2 MINUTES OF TAPE FROM THE TRACKING STATION PASSES DURING THE NEWS CONFERENCE. START BACK AT THE GUAM STATION. THE SIGNAL STRENGTH IS A LITTLE BIT LOW, BUT CMP DONN EISELE DOES DISCUSS BRIEFLY DURING THE GUAM PASS THE TELESCOPE STAR COUNT THAT HE IS DOING. INDICATES THAT HE IS ABLE TO SEE SOME STARS, AT LEAST A LITTLE WHILE AFTER THEY COME OUT OF THE DARKNESS. WE WILL PLAY THAT TAPE NOW.

GWM 53:30:00, HAW 535445; HTV 540220,
GYM 540330; TEX 540721

CAPCOM APOLLO 7, HOUSTON STANDING BY GUAM.
GUAM ROGER.

CAPCOM APOLLO 7, HOUSTON. WERE YOU CALLING?
(PAUSE) SAY AGAIN, WALLY. (PAUSE) ROGER, UNDERSTAND.
(PAUSE) ROGER. (APPARENTLY CAPCOM IS ABLE TO READ APOLLO 7,
BUT WE HEAR NOTHING, NOT EVEN GARBLE.)

CAPCOM AND YOU SAY THE COUNT IS 50? (PAUSE)
GREATER THAN 50? ROGER?

SC STANDBY JUST ONE MINUTE. WE'RE INTO THE TELESCOPE, ALL AROUND THE EDGE AND THERE IS A BIG BROAD BAND OF LIGHT ACROSS THE CENTER AND A BLOB DOWN AT THE BOTTOM AND THIS LIGHT IS SLOWLY INCREASING IN INTENSITY AND I SUSPECT THAT IN A FEW MINUTES IT'S GONNA BLOT OUT THE WHOLE FIELD OF VIEW.

CAPCOM ROGER.

SC ROGER, AT 44 I SEE 10 STARS. I CAN SEE ORION AND THE FOUR CORNER STARS AND SIRIUS AND A HANDFUL OF OTHERS SCATTERED AROUND. THERE'S ABOUT 10-12 STARS.

CAPCOM ROGER. 30 SECONDS LOS

SC ROGER. WE ARE WITH YOU.

CAPCOM APOLLO 7, HOUSTON, REQUEST ONBOARD BAT C VOLTAGE AT YOUR CONVENIENCE.

SC ROGER, I GOT BATTERY C, 37 VOLTS.

CAPCOM ROGER. 37.

SC HAS ANYBODY TAKEN A GOOD LOOK AT THE TOTAL LOAD WE HAVE ON BAT A, BAT D, I KNOW WE DIDN'T GET BACK AS MUCH AS WE EXPECTED TO ON BATTERY A YESTERDAY.

CAPCOM THAT'S AFFIRMATIVE, WALT. WE ARE LOOKING AT IT.

SC HEY, RON --

CAPCOM GO-

SC I GUESS I'M LEANING TOWARD ANOTHER BATTERY CHARGE IF NECESSARY A LITTLE FURTHER DOWN THE PIKE.

CAPCOM I SEE WHAT YOU ARE SAYING. YOU THINK THAT WE MAY REQUIRE ANOTHER BATTERY CHARGE LATER ON SOMETIME.

SC HOUSTON, APOLLO 7.
 CAPCOM HOUSTON. GO.
 SC ROGER, WE ARE STANDING BY OUR SECOND
 (GARBLE) AT 54 HOURS INTO THE FLIGHT.
 CAPCOM ROGER. YOUR SECOND WHAT?
 SC OUR SECOND BAG OF LITHIUM. INCIDENTALLY
 YOU MIGHT NOTE THAT THE ORDEAL STORAGE BOX, AFTER THE ORDEAL
 IS OUT, AND CLOSED UP AGAIN, MAKES A NICE LITTLE LOCKER
 FOR STUFFING THINGS INTO. THE LITTLE HOLE THAT'S OPEN -
 YOU CAN STUFF IT INTO, THEN LATER DUMP IT INTO THE EMPTY
 TISSUE BOX.
 CAPCOM ROGER.
 *(SEVERAL SHORT BURSTS OF GARBLE)
 SC HOUSTON, APOLLO 7. FRAME 34 ON MAGAZINE
 2. (GARBLE) APPROACHING THE WESTERN COAST OF MEXICO.)
 CAPCOM SAY AGAIN, WALT. OPPOSITE OMNI.
 SC APPROACHING WEST MEXICO, FRAME 34,
 MAGAZINE 2, CLOUD FORMATION. FRAME 30, BAJA CALIFORNIA,
 FRAME 31 WILL BE OF LAPAZ.
 CAPCOM APOLLO 7, HOUSTON. SAY AGAIN.
 SC FRAME 30, BAJA CALIFORNIA. FRAME 31,
 LAPAZ.
 CAPCOM ROGER.
 SC FRAME 32, PUERTO VALLARTA
 CAPCOM ROGER.
 SC (GARBLE)
 CAPCOM APOLLO 7, HOUSTON. 30 SECONDS LOS.
 TANANARIVE AT 46 MINUTES.
 PAO APOLLO CONTROL AT 54 HOURS, 37 MINUTES.
 THAT IS THE END OF THE TAPE. APOLLO 7 HAS STARTED ITS
 34TH REVOLUTION A LITTLE WHILE AGO. ABOUT 10 MINUTES AWAY
 FROM ACQUISITION AT TANANARIVE NOW. WE WILL COME BACK UP AT
 THAT TIME.
 END OF TAPE

PAO THIS IS APOLLO CONTROL 54 HOURS 46 MIN-
UTES INTO THE MISSION. TANANARIVE IS ABOUT TO ACQUIRE
APOLLO 7. WE'LL MONITOR THIS PASS.

CAPCOM APOLLO - APOLLO 7 HOUSTON, TANANARIVE
STANDING BY.

SC ROGER. WE'VE LOGGED ANOTHER FOOD-BAG
FAILURE AND WE POWERED DOWN AT 5435 FOR A DRIFTING SITE CON-
FIGURATION

CAPCOM SAY AGAIN TIME, WALT.

SC AT 5435 WE POWERED DOWN TO THE DRIFTING
SITE CONFIGURATION AND I ORDERED A FOOD-BAG FAILURE REPORT.

CAPCOM ROGER. HOW DID THE SECOND ONE FAIL?

SC I HAD THE SECOND ONE AND IT WAS A3, AOB
TO THE LSP, THE CHOCOLATE PUDDING, BUT THE FAILURE OCCURRED
AT THE SPOUT WHERE IT COMES OUT NEAR THE END AND IT SEEMS TO
BE GIVING AWAY NEAR THE (GARBLED).

CAPCOM WALT, I GOT PART OF THAT, BUT I COULDN'T
GET IT ALL. CHOCOLATE PUDDING BAG FAILED, BUT I'M NOT SURE
HOW YET.

SC IT FAILED AT THE YANK END ABOUT
WHERE THE EXTERNAL SEAM WOULD HAVE MADE IT IMPOSSIBLE TO
EAT IT.

CAPCOM ROGER, I UNDERSTAND NOW.

SC CHOCOLATE PUDDING (GARBLED)

CAPCOM ROGER.

SC THAT LAST PASS WAS ON THE WESTERN COAST
OF MEXICO, WE GOT SEVERAL NICE PICTURES OF THE HARBOR AT
ACAPULCO, MEXICO.

CAPCOM ROGER.

SC HOUSTON APOLLO 7

CAPCOM ROGER, GO AHEAD.

SC ROGER. I'D LIKE TO GIVE YOU A REPORT
ON THE WAY WE'RE EATING. WE'RE EATING I'D SAY, AS MUCH AS
WE CAN PUT DOWN. WHICH IS ABOUT TWO MEALS A DAY, SO FAR.

CAPCOM ROGER.

SC I'D BETTER CHANGE THAT TO TWO AND A HALF
MEALS A DAY.

CAPCOM ROGER, DONN IS A BIG EATER.

SC SAY IT AGAIN.

CAPCOM ROGER. DONN IS A BIG EATER.

SC THAT'S A FACT.

SC WE'VE BEEN OVER MEXICO NOW, ABOUT 30 MIN-
UTES OF TIME, AND DOUBLED THE (GARBLE) ON IT, AND THERE'S
NOT MUCH MORE WE CAN DO. IF WE'RE NOT HUNGRY WE DON'T EAT.
I THINK WE'RE ALL FEELING CHIPPER (GARBLE).

CAPCOM ROGER. THAT'S GOOD.

SC A SUBJECT THAT WE ARE CONCERNED ABOUT
IS THE CHLORINATION OF THE DRINKING WATER. WE'RE DRINKING
ABOUT AS MUCH AS WE CAN.

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 544620

203/2

SC I'D SAY THAT WE'VE DRUNK ENOUGH WATER TO
LOWER THE QUANTITY SUFFICIENTLY TO HAVE A CHLORINE CHECK.
CAPCOM SAY THAT AGAIN, WALLY.
CAPCOM APOLLO 7 HOUSTON, SAY THAT AGAIN ABOUT
THE CHLORINE AND POTABLE WATER.
SC THE ADVISABILITY OF ADHERING TO OUR
SCHEDULE ON THE POTABLE WATER
CAPCOM APOLLO 7 OKAY HOUSTON. 30 SECONDS TO LOS.
MERCURY AT 09.
PAO MISSION CONTROL HOUSTON. WE'VE HAD LOS AT
TANANARIVE. MUCH OF THAT TRANSMISSION WAS A LITTLE HARD TO
COPY. THE QUALITY WASN'T TOO GOOD. SO THE HIGH POINTS WE
WERE ABLE TO COPY REPORTED A SECOND FOOD-BAG FAILURE - THE
CHOCOLATE PUDDING BAG. THEY REPORTED THAT THEY HAD POWERED
DOWN AS SCHEDULED ON THE FLIGHT PLAN. WALT CUNNINGHAM REPORTED
GETTING SOME GOOD PICTURES WHILE ON THE WEST COAST OF MEXICO.
AND THE COMMANDER, WALLY SCHIRRA, REPORTS THAT THEY'VE BEEN
EATING AS MUCH AS THEY CAN GET DOWN AND THAT WORKS OUT TO
ABOUT TWO MEALS A DAY. HE ALSO REPORTED THAT HIS COLD HAS
IMPROVED CONSIDERABLY. AT 54 HOURS 56 MINUTES THIS IS
APOLLO CONTROL.

END OF TAPE

PAO THIS IS APOLLO CONTROL, 55 HOURS,
10 MINUTES INTO THE MISSION. THE MERCURY TRACKING SHIP
HAS JUST ACQUIRED APOLLO 7. WE'LL STAND BY FOR ANY CON-
VERSATION.

CAPCOM APOLLO 7, HOUSTON THROUGH MERCURY.

SC ROGER. DO YOU READ THAT?

CAPCOM ROGER, YOU'RE A LOT BETTER THIS TIME.
CAN YOU SAY AGAIN YOUR QUESTION ABOUT THE POTABLE WATER
CHLORINATION?

SC YEH, RON, WE - ADDING CHLORINE TO THE
WATER QUANTITY AND HAS THAT DECREASED SINCE WE'VE BEEN -
TAKEN OFF PRACTICALLY. AND IF THE TASTE OF THE CHLORINE HAS NOT
BOtherED US YET. AND WE FEEL WE HAVEN'T TAKEN ENOUGH WATER
OUT OF THERE TO WARRANT ADDING CHLORINE ON A 24 HOUR BASIS.

CAPCOM OKAY, UNDERSTAND YOUR QUESTION NOW, AND
WE'LL CHECK INTO IT THEN.

SC ROGER.

CAPCOM APOLLO 7, HOUSTON OUTPUT ON ME.

SC ROGER.

SC THIS IS APOLLO 7.

CAPCOM HOUSTON, GO.

SC AT APPROXIMATELY 20 MINUTES AGO, THE
TIME RATER EVAPORATOR RAN INTO THE SAME KIND OF PROBLEM IT
HAD EARLIER IN THE FLIGHT. THE STEAM PRESSURE WENT ALL THE
WAY DOWN PEG LOW AND COULD NOT INCREASE IT BY GOING TO MANUAL
AND THE INCREASE SWITCH. I RESERVICED IT FOR 2 MINUTES, AND
OPERATED MANUALLY FOR ANOTHER COUPLE OF MINUTES, AND FINALLY
WENT BACK TO AUTO AUTO. AND IT'S BEEN RUNNING FINE FOR THE
LAST 20 MINUTES. MAYBE LONGER, I GUESS, MORE LIKE 30 MINUTES
AGO.

CAPCOM ROGER, WE COPY.

SC APPARENTLY IN THIS CASE, WHAT HAPPENED
THE EVAPORATOR DRYING OUT INSTEAD OF THE EVAPORATOR BEING
FROZEN.

CAPCOM ROGER.

SC I THINK, THE MAIN DETAILS ABOUT THE
2TV-1 TEST RECEIVED YESTERDAY COULD BE SIMULATED AS TO WHAT
HAPPENED WHEN ENTERED THE CHAMBER A COUPLE OF TIMES. AND
THERE MIGHT BE SOMETHING WE COULD BRING UP THAT KEEP PREVENTING
IN 64 OR THE NEXT FLIGHT.

CAPCOM ROGER, CONCUR.

CAPCOM APOLLO 7, HOUSTON.

SC GO AHEAD.

CAPCOM ROGER, WE WOULD LIKE TO CONFIRM THAT

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 55:10:00 204/2

YOU HAVE COMPLETED THE H2 FUEL CELL PURGE.

SC THAT'S AFFIRMATIVE, COMPLETED AT
APPROXIMATELY 4 MINUTES PAST THE HOUR.

CAPCOM ROGER, THANK YOU.

PAO MISSION CONTROL, HOUSTON. GUAM WHICH
HAD SOME SLIGHT OVERLAPPING WITH THE MERCURY AT THIS TIME
HAS LOSS OF SIGNAL. THEIR SPECIFIC TASK SPELLED OUT IN
THE FLIGHT PLAN FOR THE NEXT HOUR, AND WE HAVE ENTERED THAT
PORTION OF THE FLIGHT PLAN WHERE COMMAND MODULE PILOT DON
EISELE IS DUE TO SLEEP. AT 55 HOURS, 19 MINUTES THIS IS
MISSION CONTROL, HOUSTON.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 55:28:00, MC205/1

PAO THIS IS APOLLO CONTROL AT 55 HOURS 28
MINUTES INTO THE MISSION. APOLLO 7 COMING UP ON HAWAII NOW
AND ~~THE TRACKING SHIP~~ HUNTSVILLE HAS ~~OVERLAPPING~~ COVERAGE
HERE, SO THIS SHOULD BE A FAIRLY LONG PASS.

CAPCOM APOLLO 7, HOUSTON, STANDING BY, HAWAII.

SC GARBLE.

CAPCOM APOLLO 7, HOUSTON, YOU WERE REAL WEAK,
SAY AGAIN.

SC ALLOW 10 CLICKS H2O LMP; 6 CLICKS CMP;
15 CLICKS CDR AND 2 ASPIRIN CDR.

CAPCOM ROGER, I COPY THAT.

CAPCOM 7 FROM HOUSTON.

SC GO AHEAD.

CAPCOM YOU MIGHT BE INTERESTED TO KNOW THAT THE
OILERS BLANKED BOSTON 16 TO 0.

SC VERY GOOD, THEY MUST HAVE REALLY HAD
THEIR PICTURE BY NOW.

CAPCOM THEY'RE STILL IN THE RUNNING.

SC GARBLE.

PAO THIS IS APOLLO CONTROL, 55 HOURS 35
MINUTES, HAWAII HAS LOS NOW. THIS IS A QUIET TIME IN THE
FLIGHT PLAN, THE CONTROL CENTER JUST PLANS TO MONITOR THESE
- THIS PASS - THIS REMAINING PASS THROUGH THE HUNTSVILLE.
WE'LL COME UP, IF THERE IS ANY CONVERSATION ON THIS PASS.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 55:41:00 206/1

PAO THIS IS APOLLO CONTROL, 55 HOURS, 41 MINUTES INTO THE MISSION. APOLLO 7 WENT THROUGH THE HUNTSVILLE PASS WITHOUT ANY CONVERSATION. THE CAPCOM YOU HEARD PASS UP THE SCORE ON THE OILER'S GAME WAS CAPTAIN ALLEN B. SHEPHERD, THIS COUNTRY'S FIRST MAN IN SPACE WHO CAME IN A FEW MOMENTS AGO AND IS SITTING DOWN ON THE CAPCOM CONSOLE WITH THE REGULAR CAPCOM, RON EVANS, AND ASTRONAUT JOHN YOUNG IS ALSO ON THAT CONSOLE. WE HAVE A LITTLE BIT MORE INFORMATION HERE ON THAT TELESCOPE STAR COUNT, RON EVANS REPORTS THAT AT THE TIME THAT DONN EISELE REPORTED SEEING ABOUT 50 STARS APOLLO 7 WAS APPROXIMATELY FOUR MINUTES INTO DAYLIGHT. AT THE TIME HE REPORTED HE COULD SEE TEN STARS HE WAS ABOUT TEN MINUTES INTO DAYLIGHT. AT 55 HOURS, 42 MINUTES, THIS IS MISSION CONTROL HOUSTON

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 560000 207/1

PAO THIS IS APOLLO CONTROL AT 56 HOURS INTO THE MISSION. APOLLO 7 STARTED ITS 36TH REVOLUTION JUST A FEW MINUTES AGO. IT IS NOW DOWN OVER SOUTH AMERICA. THE SPACECRAFT HAS BEEN OUT OF TOUCH WITH TRACKING STATION SINCE IT LEFT THE HUNTSVILLE AREA - HUNTSVILLE TRACKING SHIP AREA IN THE PACIFIC. AND WE WILL BE OUT OF TOUCH FOR ABOUT ANOTHER 20 MINUTES. AT THAT TIME WE WILL BE IN RANGE OF THE TANANARIVE STATION. THIS IS MISSION CONTROL HOUSTON.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 562100 208/1

PAO THIS IS APOLLO CONTROL 56 HOURS 21 MINUTES
AND APOLLO 7 IS COMING WITHIN RANGE OF THE TANANARIVE STATION
NOW. WE WILL STAND BY AND MONITOR THAT PASS.

CAPCOM APOLLO 7, HOUSTON. TANANARIVE STANDING
BY.

SC ... APOLLO 7, HOUSTON.
CAPCOM ROGER.
SC HEY, RON. CAN YOU GIVE ME A READOUT ON

MY (GARBLE)
CAPCOM NOT THIS PASS, WALT. WE HAVE NO DEAD
AIR. WE SHOULD BE ABLE TO PICK THAT UP MERCURY THOUGH.

SC (GARBLE)
(LONG PAUSE)

PAO THIS IS APOLLO CONTROL 56 HOURS 29 MINUTES
AND TANANARIVE HAS LOS. WE WENT THROUGH THAT PASS WITHOUT
ANY CONVERSATION. THE NEXT STATION TO ACQUIRE WITH BE THE
TRACKING SHIP MERCURY IN THE WESTERN PACIFIC. AT 56 HOURS
44 MINUTES. THIS IS MISSION CONTROL HOUSTON.

END OF TAPE

APOLLO 7 MISSION COMMENTARY, 10/13/68, GET: 56:44:20, 209/1

PAO THIS IS APOLLO CONTROL 56 HOURS 44
MINUTES INTO THE MISSION, APOLLO 7 COMING WITHIN RANGE OF
THE TRACKING SHIP MERCURY, NOW. WE WILL STAND BY THROUGH
THIS PASS.
CAPCOM APOLLO 7, HOUSTON, MERCURY.
SC ROGER, READ YOU LOUD AND CLEARLY.
CAPCOM ROGER, LOUD AND CLEAR. WE HAVE DATA, WE
CAN CHECK YOUR O2 MANIFOLD PRESSURES.
SC (GARBLE). OKAY.
SC (GARBLE).
CAPCOM HOUSTON, SAY AGAIN.
SC (GARBLE).
CAPCOM ROGER.
CAPCOM APOLLO 7, HOUSTON.
SC STILL GO.
CAPCOM ROGER, YOU'RE GO ON CHLORINATING. JUST
DRAW A LITTLE BIT OUT, BEFORE YOU CHLORINATE.
SC ROGER.
SC HOUSTON, FRAMES 45 AND 46 OF MAGAZINE 2,
WERE SHOT ONE MINUTE AGO.
CAPCOM ROGER.
CAPCOM APOLLO 7, HOUSTON, OPPOSITE OMNI.
CAPCOM APOLLO 7, HOUSTON, ONE MINUTE LOS, S BAND
VOLUME UP AT 57 PLUS 03.
SC 5703.
PAO APOLLO CONTROL AT 56 HOURS 52 MINUTES.
APOLLO 7 IS OUT OF THE MERCURYS RANGE NOW. NEXT STATION TO
ACQUIRE WILL BE HAWAII AT ABOUT 57 HOURS 2 MINUTES. THIS IS
MISSION CONTROL, HOUSTON.

END OF TAPE

PAO APOLLO CONTROL AT 57 HOURS 2 MINUTES AND
HAWAII HAS ACQUIRED APOLLO 7.

CAPCOM APOLLO 7, HOUSTON HAWAII

SC ROGER HOUSTON. ...

CAPCOM ROGER SAME. SEVEN, HOUSTON. I HAVE
BLOCK DATA TO PASS UP AND ALSO WE ARE STANDING BY FOR THE
O2 THING THAT YOU WANTED TO DO.

SC OKAY, READY TO GO ON THE BLOCK.

CAPCOM ROGER. ZERO THREE NINE SLANT THREE BRAVO
PLUS TWO ONE TWO PLUS ONE THREE FOUR FIVE ZERO SIX ONE PLUS
ONE SEVEN PLUS FIVE THREE FOUR NINE ZERO ZERO ZERO FOUR ZERO
DASH ALPHA CHARLIE PLUS ZERO ZERO SEVEN MINUS ZERO ONE NINE
NINE ZERO SIX TWO PLUS ZERO SEVEN PLUS FOUR ZERO FOUR THREE
SIX FIVE ZERO FOUR ONE DASH ALPHA CHARLIE PLUS ONE THREE FOUR
MINUS ZERO TWO TWO NINE ZERO SIX THREE PLUS FOUR THREE PLUS
FOUR SIX FOUR ONE SIX EIGHT ZERO FOUR TWO DASH TWO ALPHA
PLUS TWO TWO NINE MINUS ZERO TWO SIX FOUR ZERO SIX FIVE PLUS
ONE NINE PLUS FOUR THREE FOUR ONE TWO EIGHT ZERO FOUR THREE
DASH ONE CHARLIE PLUS TWO ZERO SIX MINUS ZERO FIVE FOUR NINE
ZERO SIX SIX PLUS FOUR SEVEN PLUS TWO TWO FOUR ONE TWO NINE
ZERO FOUR FOUR MINUS ONE ALPHA PLUS TWO FIVE SEVEN MINUS ZERO
SIX FOUR NINE ZERO SIX EIGHT PLUS TWO ZERO PLUS FIVE NINE
FOUR ONE FOUR FOUR. OVER.

SC ROGER, WE GOT THOSE. ZERO THREE NINE
SLASH THREE BRAVO PLUS TWO ONE TWO PLUS ONE THREE FOUR FIVE
ZERO SIX ONE ONE SEVEN FIVE THREE FOUR NINE ZERO ZERO ZERO
FOUR ZERO SLASH ALPHA CHARLIE PLUS ZERO ZERO SEVEN MINUS
ZERO ONE NINE NINE ZERO SIX TWO ZERO SEVEN FOUR ZERO FOUR
THREE SIX FIVE ZERO FOUR ONE ALPHA CHARLIE PLUS ONE THREE
FOUR MINUS ZERO TWO TWO NINE ZERO SIX THREE FOUR THREE FOUR
SIX... ONE SIX EIGHT ZERO FOUR TWO ...(LOUD NOISE)

CAPCOM APOLLO 7, HOUSTON.

SC ROGER. ...WHERE DID I LEAVE IT?

CAPCOM ROGER. START AGAIN WITH REV 42.

SC ROGER. ZERO FOUR TWO TWO ALPHA PLUS
TWO TWO NINE MINUS ZERO TWO SIX FOUR ZERO SIX FIVE ONE NINE
FOUR THREE FOUR ONE TWO EIGHT ZERO FOUR THREE ONE CHARLIE
PLUS TWO ZERO SIX MINUS ZERO FIVE FOUR NINE ZERO SIX SIX
FOUR SEVEN TWO TWO FOUR ONE TWO NINE ZERO FOUR FOUR ONE
ALPHA PLUS TWO FIVE SEVEN MINUS ZERO SIX FOUR NINE ZERO SIX
EIGHT TWO ZERO FIVE NINE FOUR ONE FOUR FOUR.

CAPCOM APOLLO 7, HOUSTON. READ BACK CORRECT.

SC ARE YOU READY TO TAKE CARE OF OUR O2

RIG.

CAPCOM ROGER, GO.

APOLLO 7 COMMENTARY, 10/13/68, GET: 570215 (CDT 7:05P) 210/2

SC ROGER. WILL YOU GIVE US A READOUT NOW...
CAPCOM SAY AGAIN.
SC WILL YOU GIVE US A READOUT NOW AND THEN
WE WILL SWITCH REGS.
CAPCOM ROGER, ONE ZERO FIVE.
SC ROGER, ONE ZERO FIVE. OKAY, DO YOU GET
A READOUT?
CAPCOM ONE ZERO TWO.
SC ROGER, UCF'S REDUNDANT COMPONENT CHECK
IS GO.
CAPCOM ROGER. APOLLO 7, BETTER TURN S-BAND
VOLUME DOWN.
HUNTSVILLE, TWO WHEEL ON DOWN RANGE.
CAPCOM APOLLO 7, HOUSTON. ONE MINUTE UNTIL LOS
TANANARIVE AT 58.
END OF TAPE

PAO THIS IS APOLLO CONTROL AT 57 HOURS, 13 MINUTES, AND WE'VE HAD LOS AT THE HUNTSVILLE WHICH HAD A SLIGHT BIT OF OVERLAPPING COVERAGE WITH HAWAII. APOLLO 7 IS ON THE ORBITS NOW THAT SWEEP DOWN OVER THE SOUTHERN HEMISPHERE, TAKES IT OFF MUCH OF THE TRACKING RANGE. WE HAVE A VERY LOW ELEVATION PASS 1 DEGREE AT TANANARIVE. WE MAY TRY TO RAISE THE SPACECRAFT THERE, BUT THE FLIGHT PLAN DOES NOT CALL FOR ANY FURTHER COMMUNICATION TILL WE GET TO THE MERCURY, THE TRACKING SHIP IN THE WEST PACIFIC. THE MERCURY IS DUE TO ACQUIRE AT 58 HOURS, 19 MINUTES, 33 SECONDS. FLIGHT PLAN ACTIVITY SCHEDULED DURING THIS LONG PERIOD OF SILENCE INCLUDES PURGE, AN OXYGEN PURGE OF THE FUEL CELL. WE COMPLETED THE HYDROGEN PURGE AN HOUR OR SO AGO. THE CREW IS ALSO SCHEDULED TO CHLORINATE THE PORTABLE WATER DURING THIS TIME AND TO CHANGE THE CHANGE THE LITHIUM HYDROXIDE CANISTER. THIS BLOCK UPDATE THAT YOU JUST HEARD PASSED UP THIS TIME IS THE INFORMATION THE FLIGHT CREW WOULD NEED TO RE-ENTER ON THOSE ORBITS ON WHICH THEY'RE OUT OF TOUCH MAINLY WITH THE RANGE. WE PASSED UP THAT NECESSARY INFORMATION FOR THE NEXT SEVERAL REVOLUTIONS SO THAT IN THE EVENT OF A CONTINGENCY THAT WOULD HAVE THAT INFORMATION AND WOULD BE ABLE TO RE-ENTER WITHOUT BEING IN DIRECT TOUCH WITH THE TRACKING STATION. AT 57 HOURS, 15 MINUTES THIS IS MISSION CONTROL, HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/13/68, GET:580200 (CDT 8:05P) 212/1

PAO THIS IS APOLLO CONTROL AT 58 HOURS 2 MIN-
UTES. APOLLO 7 HAS JUST COMPLETED THAT VERY SHORT LOW-
ELEVATION PASS AT TANANARIVE. THERE WAS A VERY BRIEF BIT
OF CONVERSATION THERE. WE'LL PLAY THAT TAPE FOR YOU NOW.

SC (GARBLE)

CAPCOM APOLLO 7 HOUSTON, TANANARIVE STANDING

BY.

SC ROGER

CAPCOM ROGER, LOUD AND CLEAR.

SC (GARBLE)

CAPCOM ROGER. THAT SHORT PASS, 1 MINUTE TO

LOS.

END OF TAPE

APOLLO 7 COMMENTARY, 10/13/68, GET: 581930 (CDT 8:22P) 213/1

PAO THIS IS APOLLO CONTROL, 58 HOURS AND 19 MINUTES INTO THE MISSION. THE TRACKING SHIP MERCURY HAS ACQUIRED APOLLO 7, THE MERCURY IS HAVING A PROBLEM WITH THEIR UNIFIED S-BAND ANTENNA AND WE WILL NOT GET ANY S-BAND DATA, BUT WILL STAND BY FOR SOME VOICE COMMUNICATION.

SC ROGER

SC HOUSTON, APOLLO 7

CAPCOM HOUSTON, GO

SC ROGER, FOR YOUR FLIGHT PLAN STATUS WE'VE ACCOMPLISHED EVERYTHING SCHEDULED ON THE FLIGHT PLAN, WE HAD A LITTLE BIT OF TROUBLE GETTING ALL OF THE PICTURES, I DON'T THINK OUR CAMERA IS WORKING TOO GOOD.

CAPCOM ROGER, IT WOULD BE IN A HOT SPOT ITS NOT WORKING TOO GOOD.

SC WE'VE GOT IT FIXED, ITS TICKING ALONG NOW. WE ONLY TOOK TWO HOLDERS ON THE 0368 ON THE 16MM, ONE FOR THE SEPARATION AND TURN AROUND MANEUVER AND ONE ON THE FINAL PHASE OF THE RENDEZVOUS. WE ARE GOING TO BE USING SOME OF IT OUT THE WINDOW IF IT SEEMS APPROPRIATE.

CAPCOM ROGER

PAO APOLLO CONTROL AT 58 HOURS, 26 MINUTES WE HAVE LOS AT THE MERCURY, NOW. WALT CUNNINGHAM REPORTED THAT THE CREW DID ACCOMPLISH THE FLIGHT PLAN ITEMS AND THAT WOULD INCLUDE THE OXYGEN PURGE OF THE FUEL CELL, THE CHANGE OF THE LITHIUM HYDROXIDE CANNISTER AND CHLORINATING THE POTABLE WATER SUPPLY. HE ALSO REPORTED THAT THEY HAD HAD A LITTLE PROBLEM ING ALONG ALL RIGHT NOW. NEXT STATION TO ACQUIRE WILL BE HAWAII AT 58 HOURS AND 37 MINUTES. THIS IS MISSION CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/13/68, GET: 583730 (CDT 8:40P) 214/1

PAO THIS IS APOLLO CONTROL AT 58 HOURS
37 MINUTES, AND APOLLO 7 IS WITHIN RANGE OF THE HAWAII STA-
TION NOW.

CAPCOM APOLLO 7, HOUSTON, HAWAII.

CAPCOM APOLLO 7, HOUSTON.

CAPCOM APOLLO 7, HOUSTON.

CAPCOM APOLLO 7, HOUSTON.

CAPCOM APOLLO 7, HOUSTON.

SC APOLLO 7, LOUD AND CLEAR.

CAPCOM ROGER. YOUR NUMBER 2 FLOW PROPORTIONING
VALVE HAS BEEN DOING A GOOD JOB THIS LAST REV, AND WE RE-
COMMEND RETURNING TO ECS RADIATOR FLOW CONTROL NUMBER 1, BY
SWITCHING TO NUMBER 1 THEN BACK TO AUTO.

SC WHAT'S WRONG WITH THAT NUMBER 2'S JOB?

CAPCOM ROGER. WE JUST PREFER TO STAY ON NUMBER 1
AS IT HAS A LITTLE BETTER

SC YOU MEAN IT GOES TO A SMALLER NUMBER,
OR WHAT? OKAY, WE'LL RETURN TO 1 FOR YOU. WE WERE WONDER-
ING WHEN YOU WOULD SPOT THAT.

CAPCOM ROGER. WE CHECKED IT WITH MERCURY, THE
LAST TIME AROUND.

SC WE'RE KINDA AFFLICTED TODAY, RON, BEAR
WITH US.

CAPCOM ROGER.

CAPCOM WALT, ON THE BATTERY CHARGING - WE'RE
NOT CONSIDERING ANY ADDITIONAL BATTERY CHARGING OF A UNTIL
WE OBSERVE WHAT HAPPENS WHEN WE CHARGE BATTERY B.

SC ROGER. I UNDERSTAND, BUT WE ALREADY
ARRANGED - TO EXPECT BATTERY B TO GO UP TO ABOUT 35 OR 36
AMP HOURS TOO, WHICH SHOULDN'T LEAVE US IN VERY GOOD SHAPE,
I DON'T BELIEVE.

CAPCOM ROGER. I UNDERSTAND YOUR CONCERN. ALSO,
WALT WE NEED SOME COMMAND MODULE HEATER TEMPS WHEN YOU GET
A CHANCE. THEY'RE 5 AND 6A THROUGH D ON YOUR SYSTEM STATUS.
NO HURRY.

SC THIS IS APOLLO 7.

CAPCOM GO.

CAPCOM APOLLO 7, HOUSTON, GO.

SC ROGER. IN ABOUT, OH IT MUST HAVE BEEN A
LITTLE OVER AN HOUR AND HALF AGO, WE HAD ANOTHER ANOMALY
LIKE ON THE FIRST NIGHT WHEN DONN WAS AWAKE ALL OF A SUDDEN
THE DC PLUS 1 WENT TO 0 ON THE READOUT DC BUTTON LIGHT
(TOO MUCH STATIC TO HEAR)

CAPCOM WALT, SAY AGAIN AFTER THE AC BUTTON LIGHT
WENT THROUGH A KEYHOLE.

SC WELL, SOMETHING IS TAKING THE INVERTER
OFF OF AC BUTTON 1 AND WE'RE GETTING (GARBLE) RIGHT BACK ON
AGAIN (TOO MUCH STATIC TO HEAR).

APOLLO 7 COMMENTARY, 10/13/68, GET: 583730 (CDT 8:40P) 214/2

CAPCOM ROGER, IT LOOKS LIKE THE SAME THING THAT
HAPPENED TO DONN, THEN.

SC I'D SAY THAT IT IS.

PAO THIS IS APOLLO CONTROL, 58 HOURS 43 MIN-
UTES. WE HAVE LOS AT HAWAII. WE PICK UP THE TRACKING SHIP
REDSTONE BEGINNING WITH THIS REVOLUTION. ACQUISITION THERE
AT 58 HOURS 52 MINUTES.

END OF TAPE

APOLLO 7 COMMENTARY, 10/13/68, GET: 585220 (CDT 8:45P) 215/1

PAO THIS IS APOLLO CONTROL 58 HOURS,
52 MINUTES. WE'RE COMING UP ON THE REDSTONE AND WE WILL
ATTEMPT TO GET SOME MORE INFORMATION FROM THE CREW HERE
CONCERNING THE RESTART ON THIS AC BUS.

CAPCOM APOLLO 7, HOUSTON SWITCH ON.

SC GO AHEAD.

CAPCOM APOLLO 7, HOUSTON, COULD YOU CONFIRM
THAT WHEN YOU HAD THE ACS FAIL, WAS IT AC BUS OR AN AC
OVERLOAD LIGHT?

SC (GARBLED)

CAPCOM SAY AGAIN, WALT.

SC (GARBLED)

CAPCOM YOU'RE AWFUL WEAK, WALT, SAY AGAIN.

CAPCOM APOLLO 7, HOUSTON.

SC HOUSTON, APOLLO 7, DID YOU READ MY
LAST COMMUNICATION?

CAPCOM THAT'S NEGATIVE, SAY AGAIN.

SC ROGER, I HAD AC BUS 1 LIGHT ON, NO
OVERLOAD. THE INVERTER WAS AUTOMATICALLY DISCONNECTED, AND
ONE OF THE BOOSTERS HAD POSSIBILITIES WITH THAT INVERTER
PUTTING OUT AN OVER LOADAGE.

CAPCOM ROGER, WE'RE WORKING ON THIS. CAN YOU
ASSOCIATE THIS WITH ANYTHING ELSE THAT WAS GOING ON AT THAT
TIME.

SC THAT'S NEGATIVE.

CAPCOM AND IT WASN'T ASSOCIATED THEN WITH THE
SLOW PROPORTIONING VALVE SWITCH OVER.

SC NOT ASSOCIATED WITH ANYTHING THAT I CAN
THINK OF.

CAPCOM ROGER. YOU'RE NOT GOING TO LUCK OUT.

SC THIS ONE IS GOING TO BE A RICH ONE, RON.

CAPCOM YEH, I THINK SO.

SC THIS IS ONE OF THOSE THINGS THAT'S NEVER
HAPPENED. IT'S A SMALL THING, BUT IT MEANS KEEPING A WATCH
ALL THE TIME.

COMM. YEH, I DON'T THINK THERE'S ANYTHING YOU
CAN DO ABOUT IT RON. I'M JUST REPORTING THAT WE HAVE HAD IT
HAPPEN TWICE.

CAPCOM OKAY, WE'RE QUESTIONING THE RANGE DOWN
HERE TO SEE IF THEY WOULDN'T COME UP WITH SOMETHING.

COMM. IT'LL GIVE YOU SOMETHING TO DO DURING
PASSES ANYWAY.

CAPCOM APOLLO 7, HOUSTON, 1 MINUTE LOS, ASCENSION

AT 19,

SC ROGER.

PAO THIS IS APOLLO CONTROL 59 HOURS INTO THE

APOLLO 7 COMMENTARY, 10/13/68, GET: 585220 (CDT 8:45P) 215/2

MISSION. RESTONE HAS LOS NOW. AS YOU HEARD THE AC BUS 1 LIGHT CAME ON NOW. A BUS IS THE - AN ELECTRICAL DISTRIBUTION SYSTEM. WALT CUNNINGHAM REPORTED NO OVERLOAD, BUT HE WONDERED IF INVERTER NUMBER 1 MIGHT BE PUTTING OUT AN OVER VOLTAGE. THE POWER COMES OUT OF THE FUEL CELLS DC, DIRECT CURRENT, AND THESE INVERTERS INVERT IT TO ALTERNATING CURRENT. AS YOU HEARD, THE COGNIZANT FLIGHT CONTROLLERS HERE HAVE TAKEN THESE CLUES THEY WERE ABLE FROM THE CREW AND ARE NOW WORKING THE PROBLEM. THAT IS NOT CONSIDERED A REAL PROBLEM AT THIS TIME, BUT THE - THEY WOULD LIKE TO TRACK DOWN THE SOURCE OF THIS ANOMALY IF THEY CAN. THE NEXT STATION TO ACQUIRE WILL BE ASCENSION AT 59 HOURS, 19 MINUTES. THIS IS MISSION CONTROL, HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/13/68, GET: 591900 (CDT 9:20P) MC216/1

PAO THIS IS APOLLO CONTROL 59 HOURS 19
MINUTES INTO THE MISSION. APOLLO 7 IS COMING UP ON A
FAIRLY LOW PASS, THE ASCENSION STATION. WE WILL STAND BY
THROUGH THIS PASS.
CAPCOM APOLLO 7, HOUSTON, ASCENSION STANDING
BY.
CAPCOM APOLLO 7, HOUSTON, ASCENSION STANDING
BY.
SC ROGER, HEAR YOU LOUD AND CLEAR.
CAPCOM ROGER, SAME.
SC APOLLO 7 (GARBLE) THE UNITED STATES FOR
OUR (GARBLE).
CAPCOM ROGER, STANDBY.
CAPCOM APOLLO 7, HOUSTON, READY TO COPY.
SC OKAY, READY TO GO.
CAPCOM ROGER, REV 38, GET NODE 59 PLUS 32 PLUS
03 LONGITUDE 24.7 EAST RIGHT ASCENSION 05 PLUS 44.
SC SAY THE LONGITUDE AGAIN, PLEASE.
CAPCOM LONGITUDE 24.7 EAST.
SC WAS THAT 24.7.
CAPCOM ROGER, 24.7.
SC THANK YOU.
PAO THIS IS APOLLO CONTROL 59 HOURS 25
MINUTES. WE'VE HAD LOS AT ASCENSION NOW. THE TRACKING
SHIP MERCURY IN THE WESTERN PACIFIC WILL ACQUIRE AT 59 HOURS
55 MINUTES - AT 59 HOURS 25 MINUTES. THIS IS MISSION
CONTROL, HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/13/68, GET: 595430 (CDT 10:00P) 217/1

PAO THIS IS APOLLO CONTROL 59 HOURS 54 MINUTES INTO THE MISSION. APOLLO 7 IN ITS 38TH REVOLUTION AROUND THE EARTH COMING UP ON THE TRACKING SHIP MERCURY IN THE WESTERN PACIFIC NOW. GUAM HAS OVERLAPPING COVERAGE.

SC (TOO MUCH STATIC TO HEAR)

PAO THIS IS APOLLO CONTROL. THE TRACKING SHIP MERCURY NOW REPORTS HAVING A PROBLEM WITH ITS COMSAT ANTENNA. THE ANTENNA IT UTILIZES TO - CONNECTION WITH COMMUNICATION SATELLITE. THAT LEAVES THE SHIP WITH HIGH-FREQUENCY CAPABILITY ONLY. WE WILL PROBABLY WAIT UNTIL WE GET WITHIN GUAM ACQUISITION BEFORE PUTTING IN A CALL TO THE SPACECRAFT. WE'LL CONTINUE TO MONITOR THROUGH THE REST OF THE MERCURY PASS.

CAPCOM APOLLO 7, HOUSTON, GUAM STANDING BY.

CAPCOM APOLLO 7, HOUSTON, 1 MINUTE LOS REDSTONE AT 26.

SC ROGER, WE'D LIKE TO GIVE THE RESULTS OF THE RENDEZVOUS RADAR TEST AND CONFER ON THE USE OF THE RENDEZVOUS RADAR POWER. WOULD YOU PASS THAT UP TO US RON?

CAPCOM SAY, AGAIN, WALT.

SC WE HAVE TO KNOW THE POSITION OF THE RENDEZVOUS RADAR HEATER POWER SWITCH AND RESULTS OF THE RENDEZVOUS SELF-TEST. WE DON'T HAVE THAT ONBOARD.

CAPCOM ROGER. AWFUL HARD TO UNDERSTAND. SOMETHING ABOUT A POWER SWITCH, AND I'LL GUESS WHICH ONE. I'LL FIND OUT.

SC RENDEZVOUS RADAR, POWER SWITCH AND THE PREPOSITION SWITCH AND THE OTHER END OF IT.

END OF TAPE

APOLLO 7 COMMENTARY, 10/13/68, GET: 601730 (CDT 10:11P)218/1

SC POWER SWITCH, AND ITS A PREPOSITIONED
SWITCH, THE OTHER END OF IT (GARBLED)

CAPCOM ROGER

PAO THIS IS APOLLO CONTROL, 60 HOURS, 6
MINUTES, GUAM HAS LOS NOW. APOLLO 7 WILL BE WITHIN RANGE
OF THE TRACKING SHIP REDSTONE AT 60 HOURS, 26 MINUTES.
THIS IS MISSION CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/13/68, GET: 60:26:10 (CDT 10:30P) 219/1

PAO THIS IS APOLLO CONTROL, 60 HOURS,
26 MINUTES INTO THE MISSION. APOLLO 7 COMING UP ON THE
TRACKING SHIP REDSTONE NOW. WE'LL MONITOR THIS PASS.
CAPCOM APOLLO 7, HOUSTON THROUGH REDSTONE.
- APOLLO 7, HOUSTON REDSTONE.
SC ROGER, READ YOU LOUDLY.
CAPCOM ROGER, A LITTLE WEAK BUT CLEAR.
SC ROGER, DID YOU GET THE DATA ON THE
RADAR TRANSPONDER SWITCH.
CAPCOM AFFIRMATIVE, ARE YOU READY TO COPY?
SC GO AHEAD.
CAPCOM ROGER, THE RADAR TRANSPONDER POWER
SWITCH, YOU PUT IT TO THE HEATER FOR 1 MINUTE AND THEN
TO POWER FOR THE SELF-FELL TEST. BY THE WAY, YOU LEAVE 24 MINUTES
IN HEATER IF YOU ARE GOING TO REALLY OPERATE IT. SYSTEMS
PASS LEFT HAND, THEN TRANSPONDER RIGHT HAND TO ALPHA.
INDICATOR SHOULD BE 1 TO 5 VOLTS. SYSTEMS PASS RIGHT HAND
TO BRAVO. INDICATOR 2 PLUS OR MINUS 1 VOLT. SYSTEMS PASS
RIGHT HAND TO CHARLIE. DISREGARD THE INDICATOR. SYSTEMS
PASS RIGHT HAND TO DOG. INDICATOR SHOULD BE ZERO TO 4.5 VOLTS.
OVER.
SC I'M GETTING A VERY BROKEN. WE'LL HAVE
TO WAIT FOR ASCENSION, I THINK, TO GET A GOOD SEPARATOR.
CAPCOM ROGER.
SC DO YOU READ, APOLLO 7.
CAPCOM APOLLO 7, HOUSTON. ROGER, READ YOU
NOW.
SC ROGER. YOU MIGHT TRY IT AGAIN. YOU
WERE (GARBLED) I COULDN'T READ YOU AT ALL.
CAPCOM ROGER. RADAR TRANSPONDER POWER
SWITCH GOES TO HEATER FOR 1 MINUTE THEN TO POWER.
CAPCOM APOLLO 7, HOUSTON. IS THE COMM ANY
BETTER NOW?
SC ROGER. ALL'S CLEAR, YOU WANT TO TRY
TO READ THAT OFF AGAIN.
CAPCOM ROGER. THE RADAR TRANSPONDER SWITCH
GOES TO HEATER FOR 1 MINUTE, THEN TO POWER. SYSTEMS PASS
LEFT HAND TO TRANSPONDER. RIGHT HAND TO ALPHA. YOUR INDICATOR
1 TO 5 VOLTS. 7, HOUSTON, YOU COPY SO FAR.
SC LET'S TRY TO PICK YOU UP AT ASCENSION.
CAPCOM ROGER, WE'LL TRY ASCENSION THEN.
SC ROGER.
CAPCOM APOLLO 7, HOUSTON, 1 MINUTE TO LOS.
ASCENSION AT 52.
PAO THIS IS APOLLO CONTROL AT 60 HOURS,
35 MINUTES. APOLLO 7 BEYOND RANGE OF THE REDSTONE NOW.

APOLLO 7 COMMENTARY, 10/13/68, GET: 602610 (CDT 10:30P) 219/2

THAT INFORMATION THAT THE CAP COM RON EVANS WAS ATTEMPTING TO PASS UP IS THE PROCEDURE FOR ONBOARD TESTING OF THE RADAR TRANSPONDER WHICH WILL BE USED IN CONNECTION OF THE LUNAR MODULE RADAR TOMORROW. THE LM RADAR ITSELF IS AT THE WHITE SANDS, NEW MEXICO TEST FACILITY. IT WILL ATTEMPT TO LOCK ON TO THE TRANSPONDER ONBOARD THE COMMAND MODULE AS THE COMMAND MODULE COMES OVER THE WHITE SANDS AREA. NEXT STATION TO ACQUIRE WILL BE ASCENSION. AT 60 HOURS, 52 MINUTES THIS IS MISSION CONTROL, HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/13/68, GET: 605220 (CDT 10:55P) MC220/1

PAO THIS IS APOLLO CONTROL AT 60 HOURS
52 MINUTES INTO THE MISSION. APOLLO 7 COMING UP ON THE
ASCENSION ISLAND TRACKING STATION, NOW. WE'LL LISTEN
THROUGH THIS PASS.

CAPCOM APOLLO 7, HOUSTON.
SC GARBLE.

CAPCOM ROGER, I CAN CONTINUE WITH THAT TRANS-
PONDER CHECK NOW IF YOU WANT.
SC GO AHEAD, I HAVE THE DATA FOR YOU, IF
YOU'RE READY TO COPY.

CAPCOM ROGER, READY.
SC GARBLE. ALPHA 3.2, BRAVO 1.8,
CHARLIE 0.44, DELTA 0.

CAPCOM ROGER, I'LL READ BACK, 3.2, 1.8, 0.44,
AND 0.
SC THAT IS CORRECT. DELTA V TO TAB OVER
THE POINT ONE AT THE MOST.

CAPCOM ROGER.
CAPCOM APOLLO 7, HOUSTON, BE ADVISED OF WARM
UP TIME FOR THE REAL TEST ON THAT THING IS 24 MINUTES.
SC ROGER, AND WE'LL BE USING IT FOR ONE
MINUTE, RIGHT?

CAPCOM SAY, AGAIN.
SC GARBLE.
SC APOLLO 7, ROGER. HOUSTON, APOLLO 7.
CAPCOM HOUSTON, GO.
SC BEFORE WE PROVE THAT POINT ON THE
QUERY THEY TASTE HORRIBLE RIGHT NOW.
SC IT'S TWO AND A HALF HOURS AFTER
INJECTION.

CAPCOM ROGER, WE UNDERSTAND.
SC WE'VE BEEN ASKING IT NOW FOR A LONG
TIME AND NOW WE WILL JUST HAVE TO WAIT OR CONSIDER USING
THE SURVIVAL KIT WATER IF IT'S NECESSARY.

CAPCOM ROGER.
CAPCOM APOLLO 7, HOUSTON.
SC GARBLE.
CAPCOM ROGER, WE SEE NO, BIOMED DOWN LINK ON
THE LMP.
SC I WANTED TO FLY, NOW I GOT TO GO GET
IT UP.

CAPCOM SAY IT AGAIN, WALLY.
SC ROGER, WE'VE GOT THE CABLE ALL HOOKED
UP.

CAPCOM ROGER.
SC WE GOT DOWN TO KEEPING ONE MAN ON WATCH
AT A TIME AND THAT'S GOING TO HELP A LOT. BUT WE STILL NEED
(GARBLE)

APOLLO 7 COMMENTARY, 10/13/68, GET: 605220 (CDT 10:55P) MC220/1

PAO THIS IS APOLLO CONTROL AT 60 HOURS
52 MINUTES INTO THE MISSION. APOLLO 7 COMING UP ON THE
ASCENSION ISLAND TRACKING STATION, NOW. WE'LL LISTEN
THROUGH THIS PASS.

CAPCOM APOLLO 7, HOUSTON.
SC GARBLE.

CAPCOM ROGER, I CAN CONTINUE WITH THAT TRANS-
PONDER CHECK NOW IF YOU WANT.
SC GO AHEAD, I HAVE THE DATA FOR YOU, IF
YOU'RE READY TO COPY.

CAPCOM ROGER, READY.
SC GARBLE. ALPHA 3.2, BRAVO 1.8,
CHARLIE 0.44, DELTA 0.
CAPCOM ROGER, I'LL READ BACK, 3.2, 1.8, 0.44,
AND 0.
SC THAT IS CORRECT. DELTA V TO TAB OVER
THE POINT ONE AT THE MOST.
CAPCOM ROGER.
CAPCOM APOLLO 7, HOUSTON, BE ADVISED OF WARM
UP TIME FOR THE REAL TEST ON THAT THING IS 24 MINUTES.
SC ROGER, AND WE'LL BE USING IT FOR ONE
MINUTE, RIGHT?
CAPCOM SAY, AGAIN.
SC GARBLE.
SC APOLLO 7, ROGER. HOUSTON, APOLLO 7.
CAPCOM HOUSTON, GO.
SC BEFORE WE PROVE THAT POINT ON THE
QUERY THEY TASTE HORRIBLE RIGHT NOW.
SC IT'S TWO AND A HALF HOURS AFTER
INJECTION.
CAPCOM ROGER, WE UNDERSTAND.
SC WE'VE BEEN ASKING IT NOW FOR A LONG
TIME AND NOW WE WILL JUST HAVE TO WAIT OR CONSIDER USING
THE SURVIVAL KIT WATER IF IT'S NECESSARY.
CAPCOM ROGER.
CAPCOM APOLLO 7, HOUSTON.
SC GARBLE.
CAPCOM ROGER, WE SEE NO, BIOMED DOWN LINK ON
THE LMP.
SC I WANTED TO FLY, NOW I GOT TO GO GET
IT UP.
CAPCOM SAY IT AGAIN, WALLY.
SC ROGER, WE'VE GOT THE CABLE ALL HOOKED
UP.
CAPCOM ROGER.
SC WE GOT DOWN TO KEEPING ONE MAN ON WATCH
AT A TIME AND THAT'S GOING TO HELP A LOT. BUT WE STILL NEED
(GARBLE)

APOLLO 7 COMMENTARY, 10/13/68, GET: 606220 (CDT 10:55P) 220/2

SC	(GARBLE)
CAPCOM	SAY IT AGAIN
SC	(GARBLE) HOW ARE YOU READING MY HEART?
CAPCOM	STAND BY.
SC	IS MY HEART COMING IN FIVE BY FIVE?
CAPCOM	ROGER, WALT WE HAVE IT NOW, THANK YOU.
CAPCOM	APOLLO 7, HOUSTON. 30 SECONDS LOS

MERCURY AT 28.

PAO THIS IS APOLLO CONTROL, 61 HOURS 1 MINUTE. ASCENSION ISLAND HAS LOS NOW. HERE IN THE CONTROL CENTER WE ARE GETTING READY TO HAND OVER TO THE NEXT SHIFT OF FLIGHT CONTROLLERS. THE NEXT STATION TO ACQUIRE APOLLO 7 WILL BE THE TRACKING SHIP MERCURY. AT 61 HOURS 28 MINUTES THIS IS MISSION CONTROL, HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/13/68, GET: 612030 (CDT 11:24P) 221/1

PAO THIS IS APOLLO CONTROL. THERE WILL
BE A CHANGE OF SHIFT PRESS CONFERENCE HERE IN HOUSTON IN
APPROXIMATELY 15 MINUTES. THAT WOULD BE 20 MINUTES TO THE
HOUR. THIS IS APOLLO CONTROL.

END OF TAPE.

APOLLO 7 COMMENTARY, 10/13/68, GET: 612800 (CDT 11:30) 222/1

PAO THIS IS APOLLO CONTROL, 61 HOURS,
28 MINUTES INTO THE MISSION OF APOLLO 7. WE ARE COMING
UPON ACQUISITION WITH THE MERCURY TRACKING SHIP WITHIN A
FEW SECONDS. LET'S STANDBY FOR THAT CONVERSATION.

CAPCOM APOLLO 7, HOUSTON, ACQUISITION MERCURY.
SC THIS IS APOLLO 7.
CAPCOM APOLLO 7, HOUSTON, GO.
SC ROGER. WE HAVE A - HAVE A (GARBLE)
CAPCOM APOLLO 7, HOUSTON. I WILL CALL YOU
AGAIN IN ABOUT 30 SECONDS. THE SIGNAL IS VERY POOR. ALL
I COULD COPY IS SOMETHING ABOUT CAUTION AND WARNING PANEL.
APOLLO 7, HOUSTON. YOU ARE UNREADABLE RIGHT NOW.
SC THIS IS APOLLO 7, SAY AGAIN.
PAO THIS IS - THIS IS APOLLO CONTROL,
61 HOURS, 32 MINUTES. COMMUNICATIONS HAVE NOT BEEN AS
DESIRABLE AS COULD BE WISHED FOR ON THIS PASS. WE ARE
STILL STANDING BY LIVE. IT IS POSSIBLE SINCE THIS PASS
RUNS INTO THE GUAM STATION, THAT WILL BE THE POINT WHERE
WE WILL GET BETTER COMMUNICATIONS. LET'S STANDBY.

CAPCOM APOLLO 7, HOUSTON. HOW DO YOU READ?
SC (GARBLE)
CAPCOM APOLLO 7, HOUSTON. I READ YOU A4UT
STRENGTH 1 AND VIRTUALLY UNREADABLE.
SC ROGER. ARE YOU READY TO GO?
CAPCOM ROGER. THAT IS MUCH BETTER, GO.
SC APOLLO 7, SAY AGAIN.
CAPCOM APOLLO 7, HOUSTON. AT ACQUISITION
MERCURY, YOU GAVE ME A TRANSMISSION. ALL I COPIED WAS
SOMETHING ABOUT CAUTION AND WARNING PANEL. WOULD YOU SAY
AGAIN?
SC HOUSTON, THIS IS APOLLO 7. JUST PRIOR
TO CROSSING THE RED SEA, WE LOST AC + 1 AND AC + 2. (GARBLE)
CAPCOM APOLLO 7, HOUSTON. UNDERSTAND JUST
AFTER CROSSING THE RED SEA, YOU LOST AC +1 AND AC + 2.
YOU HAVE AC RESET. I AM GOING TO WAIT OVER GUAM AND
GO OVER THIS AGAIN. I AM MISSING TOO MUCH OF THE TRANS-
MISSION.
SC ROGER. WE HAVE TO STAND GO.
CAPCOM APOLLO 7, HOUSTON. HOW DO YOU READ?
SC ROGER, LOUD AND CLEAR.
CAPCOM OKAY, I AM SORRY TO ASK THIS. WOULD
YOU REPEAT THIS AGAIN. BUT I DID NOT GET THE FULL MESSAGE
THERE. I GOT SOMETHING AFTER PASSING THE RED SEA, YOU HAD
AC + 1 AND AC + 2 FAILED. YOU DID GET RESET ON BOTH BUSES.
IS THAT CORRECT?
SC THAT IS CORRECT, APPROXIMATELY 61 HOURS
AND 14 MINUTES. WHILE WE WERE THERE, WE HAD A MASTER
ALARM BUT NO CAUTION AND WARNING LIGHT INDICATED.
CAP YOU HAD NO CAUTION AND WARNING LIGHTS.

APOLLO 7 COMMENTARY, 10/13/68, GET: 612800 (CDT 11:30) 222/2

SC THAT IS VERY TRUE HERE. AFTER YOU CALLED WE HAD A BETTER GHOST EARLIER IN THE MISSION. THE AC WASN'T REALLY NECESSARILY LOST AS THE BUS WENT TWICE INDICATED BACK UP AGAIN. WE GOT A...AND THAT IS A MANNED CONDITION OR NOT.

CAPCOM ROGER, UNDERSTAND YOU THINK IT IS A GHOST. NOW - YOU CAN MAKE SURE I HAVE IT CORRECT. YOU DO HAVE BOTH AC BUSES WORKING NORMALLY NOW.

SC THAT IS CORRECT. I AM NOT SURE KIND WHAT KIND OF GHOSTS WE HAVE, BUT WE HAVE HAD MASTER ALARMS AND NO INDICATION AS TO THE CAUSE.

CAPCOM THANK YOU.

SC HEY, BILL. WE GOT ONE MORE THING THAT MAY OR MAY NOT BE SIGNIFICANT. BUT AFTER I RESET THE MASTER ALARM WITH NO CAUTION TO WARNING LIGHT BUT TOOK THE CURRENTS AND ALL THE FUEL CELLS. AND WE WERE AVERAGING WELL OVER 20 AMPS OF FUEL CELLS AND NOW WE ARE BACK TO ABOUT 15. AND AT FIRST I ATTRIBUTED THAT TO A CYCLING LOAD. I DON'T KNOW. IT COULD HAVE POSSIBLY BEEN 98 LOADS. I DON'T KNOW.

CAPCOM ROGER, UNDERSTAND. IMMEDIATELY AFTER RESET, YOU MONITORED THE FUEL CELL CURRENTS AT 2.0 AMPS AND THEY ARE NOW READING 15.0.

SC THAT IS A NEGATIVE. AFTER THE - MASTER ALARM, THERE WAS NO CAUTION TO WARNING LIGHTS. AT 6109 IS WHEN I NOTICED THE FUEL CELL CLEARANCE. THE OTHER TWO CAUTION AND WARNING LIGHTS WHEN THE BUS FAILED WERE AT 6114, OVER.

CAPCOM ROGER.

SC THIS IS (GARBLE)

CAPCOM RIGHT. APOLLO 7, HOUSTON. WE ARE GETTING A TAPE DUMP HERE AT GUAM AND WE WILL BE TAKING A LOOK AT IT AND WILL BE TRYING TO GIVE YOU A CALL AT REDSTONE ON THIS.

CAPCOM OKAY, THERE IS NOT MUCH WE CAN DO RIGHT NOW BUT I WOULD LIKE TO READ OUT WHAT WE HAVE LEFT AND CONTINUE WITH IT.

CAPCOM RIGHT. ALL I KNOW IS THAT THERE IS A LOT OF COLD CATHODE ACCORDING TO THE...

CAPCOM UNDERSTAND. APOLLO 7, HOUSTON, 1 MINUTE UNTIL LOS, GUAM, REDSTONE, AT 01.

SC REDSTONE?

CAPCOM AND APOLLO 7, HOUSTON, I WOULD LIKE TO CONFIRM MY CANNISTER CHANGE AROUND THE 58 HOUR POINT.

SC THAT IS GOOD.

CAPCOM THANK YOU.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 623600(CDT 12:39A) 223/1

PAO THIS IS APOLLO CONTROL 62 HOURS 36 MINUTES INTO THE MISSION OF APOLLO 7. WE HAVE TAPES OF OUR PASS OVER THE REDSTONE TRACKING SHIP AND WE JUST FINISHED A PASS OVER ASCENTION ISLAND. WE'LL PLAY THOSE TAPES NOW.

CAP COM APOLLO 7, HOUSTON.

SC ROGER, HOUSTON. GO AHEAD.

CAP COM ROGER. I WAS A BIT OPTIMISTIC. IT'LL TAKE A LITTLE LONGER TO LOOK AT THOSE TAPES, BUT WE DID GET A DUMP OVER GUAM AND WE'LL BE GIVING YOU OUR ANALYSIS OF THE SITUATION AS SOON AS WE GET IT. MEANTIME, I'D LIKE TO GO BACK OVER MY NOTES AND MAKE SURE THAT I HAVE THE STORY CORRECT. OKAY, THE WAY I HAVE IT. AT 61 + 09 YOU GOT A MASTER ALARM LIGHT WITH NO CAUTION AND WARNING LIGHT? YOU READ THAT MASTER ALARM OKAY.

SC YOU BETTER RELEASE ...

CAP COM AT THAT TIME, FUEL CELL CURRENT WAS AVERAGING 20.0 EACH. AT 61 + 14, YOU GOT AN AC1 AND AN AC2 FAIL. DO YOU READ THAT, BOTH AC1 AND AC2 SUCCESSFULLY. AT THE TIME THAT YOU WERE TALKING TO ME, ABOUT 61 + 30, THE FUEL CELLS WERE AVERAGING 15 AMPS, ONE FIVE AMPS. THAT IS THE STORY AS I HAVE IT COPIED. APOLLO 7, HOUSTON. DID YOU READ?

SC HOUSTON, APOLLO 7. YOU READ?

CAP COM ROGER. APOLLO 7, HOUSTON. HOW DO YOU READ ME?

SC READ YOU FINE NOW. HOW ME?

CAP COM I READ YOU ABOUT 4 BY 4. DID YOU GET MY TRANSMISSION THERE?

SC ... CORRECT. THE TIME WAS 61 + 05 FOR THE MASTER ALARM AND 61 + 14 FOR THE BUSS FAIL.

CAP COM APOLLO 7, HOUSTON. COPIED THE CORRECTION, 61 + 05 FOR THE MASTER ALARM.

SC AND THE FUEL CELL LOADING MAY OR MAY NOT BE SIGNIFICANT. THAT WAS THE THIRD AC BUSS ONE FAIL WE'VE HAD AND THE FIRST AC BUSS TWO FAILURE AND MY ... ONBOARD ANALYSIS TRACK IT DOWN TO A ... OVERVOLTAGE BUT GUIDING ONTO BOTH BUSES WHICH SEEMS KIND OF DIFFICULT.

CAP COM ROGER.

SC DID YOU READ? HOUSTON, APOLLO 7. DID YOU READ.

CAP COM ROGER. GO.

SC DID YOU READ MY LAST TRANSCRIPTION, BILL.

CAP COM ROGER. UNDERSTAND, YOU HAVE - THIS IS THE THIRD AC1 FAILURE BUT THE FIRST AC2 FAILURE YOU'VE EXPERIENCED. AH, YOU ARE DOUBTFUL, YOU ARE IN QUESTION AS TO HOW A TRANSIT OVERVOLTAGE CAN THROW BOTH AC'S OFF LINE, IS THAT YOUR QUESTION?

APOLLO 7 COMMENTARY, 10/14/68, GET: 623600 (CDT 12:39A) 223/2

SC THAT'S AFFIRMATIVE.
CAP COM WE'RE LOOKING AT IT. WE WILL BE LOOK-
ING AT THAT AND TRYING TO GIVE YOU A COMPLETE STORY AS SOON
AS WE CAN PUT IT TOGETHER.
SC OKAY. AND CONFIRM WE HAVE A GOOD TAPE
RUNNING NOW.
CAP COM STAND BY. APOLLO 7, HOUSTON. WE ARE
REWINDING THE TAPE NOW. THE TAPE WILL BE YOURS AT LOS.
SC ROGER. THANK YOU.
CAP COM LOS IN ABOUT 3-1/2 MINUTES. APOLLO 7,
HOUSTON. COMING UP ON LOS REDSTONE. ASCENSION AT 27.
SC ROGER. WE'LL BE STANDING BY.
CAP COM AND THE TAPE RECORDER IS YOURS NOW.
SC ...
IS WALLY. HOUSTON, THIS IS WALLY. HOUSTON, THIS
CAP COM GO.
SC ROGER. YOU MIGHT JUST CHECK INTO OUR
CONFIGURATION. THERE WAS A LAST BIT OF VARIANCE ON INVERTER
SAFETY WIRING.
CAP COM ROGER. CHECK INTO THE INVERTER SAFETY
WIRING.
SC THERE'S A NEW CHANGE IN THE ... THAT
THEY HAD IN THE PLAN.
CAP COM ROGER.
SC I THINK WALLY'S REFERRING TO THE CHANGE
WHERE THEY DISCONNECTED THE OVERLOAD TRANSIT.
CAP COM APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.
SC ROGER HOUSTON, APOLLO 7. GO.
CAP COM AOS ASCENSION AND WE'RE STILL STUDY-
ING THE PROBLEM.
SC OKAY. ... NOT HERE RIGHT NOW, EVERY-
THINGS NORMAL.
CAP COM ROGER. WE JUST FINISHED THE PLAYBACK
AND ARE STILL LOOKING AT IT.
SC GOOD SHOW. OLD WALLY IS SACKING OUT
SO I'LL BE MINDING THE STORE IN THE MEANTIME.
CAP COM OKAY, DONN. APOLLO 7, HOUSTON. ONE
MINUTE LOS ASCENSION, MERCURY AT 04.
PAO THIS IS APOLLO CONTROL, 62 HOURS 42 MIN-
UTES INTO THE MISSION. AS YOU HEARD, WE'RE ANTICIPATING CON-
TACT WITH TRACKING SHIP MERCURY AT 63:04. THE TAPE WAS SELF
EXPLANATORY AND THE MASTER ALARM LIGHT COMING ON AND THE
PROCEDURES THAT WERE GONE THROUGH, THE RESET WAS SUCCESSFUL.
THE AC BUSS ONE AND TWO FAIL, AH, OF COURSE THE AC BUSS BEING
DISTRIBUTION POINTS FOR THE ALTERNATING CURRENT TO GO TO THE
VARIOUS SPACECRAFT CIRCUITRY. AS OF NOW, AS YOU HEARD ON THE
ASCENSION PASS, BILL POGUE, HERE IN THE CONTROL CENTER TALKED

APOLLO 7 COMMENTARY, 10/14/68, GET: 623600 (CDT 12:39A) 223/2

SC THAT'S AFFIRMATIVE.
CAP COM WE'RE LOOKING AT IT. WE WILL BE LOOK-
ING AT THAT AND TRYING TO GIVE YOU A COMPLETE STORY AS SOON
AS WE CAN PUT IT TOGETHER.
SC OKAY. AND CONFIRM WE HAVE A GOOD TAPE
RUNNING NOW.
CAP COM STAND BY. APOLLO 7, HOUSTON. WE ARE
REWINDING THE TAPE NOW. THE TAPE WILL BE YOURS AT LOS.
SC ROGER. THANK YOU.
CAP COM LOS IN ABOUT 3-1/2 MINUTES. APOLLO 7,
HOUSTON. COMING UP ON LOS REDSTONE. ASCENSION AT 27.
SC ROGER. WE'LL BE STANDING BY.
CAP COM AND THE TAPE RECORDER IS YOURS NOW.
SC ...
IS WALLY. HOUSTON, THIS IS WALLY. HOUSTON, THIS
CAP COM GO.
SC ROGER. YOU MIGHT JUST CHECK INTO OUR
CONFIGURATION. THERE WAS A LAST BIT OF VARIANCE ON INVERTER
SAFETY WIRING.
CAP COM ROGER. CHECK INTO THE INVERTER SAFETY
WIRING.
SC THERE'S A NEW CHANGE IN THE ... THAT
THEY HAD IN THE PLAN.
CAP COM ROGER.
SC I THINK WALLY'S REFERRING TO THE CHANGE
WHERE THEY DISCONNECTED THE OVERLOAD TRANSIT.
CAP COM APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.
SC ROGER HOUSTON, APOLLO 7. GO.
CAP COM AOS ASCENSION AND WE'RE STILL STUDY-
ING THE PROBLEM.
SC OKAY. ... NOT HERE RIGHT NOW, EVERY-
THINGS NORMAL.
CAP COM ROGER. WE JUST FINISHED THE PLAYBACK
AND ARE STILL LOOKING AT IT.
SC GOOD SHOW. OLD WALLY IS SACKING OUT
SO I'LL BE MINDING THE STORE IN THE MEANTIME.
CAP COM OKAY, DONN. APOLLO 7, HOUSTON. ONE
MINUTE LOS ASCENSION, MERCURY AT 04.
PAO THIS IS APOLLO CONTROL, 62 HOURS 42 MIN-
UTES INTO THE MISSION. AS YOU HEARD, WE'RE ANTICIPATING CON-
TACT WITH TRACKING SHIP MERCURY AT 63:04. THE TAPE WAS SELF
EXPLANATORY AND THE MASTER ALARM LIGHT COMING ON AND THE
PROCEDURES THAT WERE GONE THROUGH, THE RESET WAS SUCCESSFUL.
THE AC BUSS ONE AND TWO FAIL, AH, OF COURSE THE AC BUSS BEING
DISTRIBUTION POINTS FOR THE ALTERNATING CURRENT TO GO TO THE
VARIOUS SPACECRAFT CIRCUITRY. AS OF NOW, AS YOU HEARD ON THE
ASCENSION PASS, BILL POGUE, HERE IN THE CONTROL CENTER TALKED

APOLLO 7 COMMENTARY, 10/14/68, GET: 623600 (CDT 12:39A) 223/3

PAO TO THE SPACECRAFT. EVERYTHING APPEARS
NORMAL, THE CURRENT FOR THE FUEL CELLS AT PRESENT IS NORMAL
ON THE LAST READOUTS. LAST WORD, THE SPACECRAFT COMMANDER
WALLY SCHIRRA AND THE LM PILOT WALT CUNNINGHAM WERE SACKING
OUT. AT 62 HOURS 43 MINUTES THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 630400 (CDT 1:07A) 224/1

PAO THIS IS MISSION CONTROL 63 HOURS 04 MINUTES INTO APOLLO 7. WE'RE COMING UP ON THE MERCURY TRACKING SHIP FOR A PASS. LET'S JOIN THE CONVERSATION.

GODDARD VOICE HOUSTON, GODDARD VOICE CONFERENCE.
COMM GO AHEAD, GODDARD.
GODDARD VOICE HOW DO YOU READ?
COMM YOU'RE LOUD AND CLEAR.
GODDARD VOICE STAND BY, I'LL PUT YOU BACK TO CONFERENCE.

COMM THANK YOU.
GODDARD VOICE MERCURY NETWORK, GOSS CONFERENCE.
MERCURY NETWORK, GOSS CONFERENCE.
MER MERCURY.
GODDARD VOICE MERCURY NETWORK, HOW DO YOU READ?
MER READ YOU LOUD AND CLEAR.
GODDARD VOICE HEAR YOU THE SAME.
CAP COM APOLLO 7, HOUSTON.
SC ROGER, HOUSTON, APOLLO 7.
CAP COM ROGER. ACQUISITION GUAM.
SC ROGER.
CAP COM APOLLO 7, HOUSTON. ABOUT ONE MINUTE 30 SECONDS TO LOS GUAM. REDSTONE AT 36 AND WE'D LIKE TO CONFIRM BIOMED SWITCH CENTER.
SC ROGER. STAND BY. (GARBLED)
CAP COM ROGER. UNDERSTAND (GARBLED)
PAO THIS IS APOLLO CONTROL, 63 HOURS 16 MINUTES INTO THE FLIGHT OF APOLLO 7. OUR NEXT ACQUISITION POINT WILL BE THE REDSTONE TRACKING SHIP AT 63:36. LIKE TO GIVE A LITTLE RECAP ON A SITUATION WE HAD CONCERNING THE AC BUSES. AT 62 HOURS AND ONE MINUTE INTO THE FLIGHT, ASTRONAUT POGUE IN THE CONTROL CENTER REQUESTIONED APOLLO 7 CONCERNING A MESSAGE THAT WAS HARDLY READABLE WHICH HAD BEEN RECEIVED AT 61:27 FROM ASTRONAUT SCHIRRA, SPACECRAFT COMMANDER, CONCERNING THE CAUTION AND WARNING PANEL. THEN AT 62:01 AS I SAY, ASTRONAUT POGUE INDICATED THAT WE HAD HAD A DUMP OVER GUAM OF DATA, WE WERE ANALYZING IT AND AGAIN WENT THROUGH WHAT HAD HAPPENED ONBOARD. IN THE PERIOD OF THE 39TH REVOLUTION AT 61 HOURS AND 05 MINUTES, THE MASTER ALARM LIGHT HAD COME ON. THERE HAD BEEN NO CAUTION AND WARNING LIGHT PREVIOUS TO THAT. IT WAS ALSO INDICATED THEN THAT THE MASTER ALARM WAS OKAY AFTER RESET. AFTER THAT, AT 61 HOURS 14 MINUTES THE AC BUSS ONE AND AC BUSS TWO FAILED. THEY WERE RESET SUCCESSFULLY AT 61 HOURS 30 MINUTES THE FUEL CELLS WERE AVERAGING 15 AMPERES. BEFORE THAT TIME, THEY WERE AVERAGING 20 AMPERES OF FLOW. IT WAS INDICATED BY THE SPACECRAFT THAT THIS WAS THE THIRD AC BUSS ONE FAIL DURING THE FLIGHT AND THE FIRST AC BUSS TWO FAIL DURING THE FLIGHT. THE QUESTION FROM ONBOARD CAME COULD IT BE TRANSIENT OVERVOLTAGE, THAT IF IT WERE WHY WOULD

APOLLO 7 COMMENTARY, 10/14/68, GET: 630400 (CDT 1:07A) 224/2

PAO IT FAIL BOTH BUSES. IT WAS ALSO INDICATED THAT FROM THE 20 DOWN TO THE 15 AMP LEVEL IN OUTPUT COULD POSSIBLY BE DUE TO THE POWER DOWN OF THE SPACECRAFT OR CYCLIC LOADS. ASTRONAUT SCHIRRA THEN INDICATED IN THIS PASS THAT BACK AT THE CONTROL CENTER THAT WE SHOULD CHECK THE CONFIGURATION, THE INVERTER SAFETY WIRING. AT THAT TIME, ASTRONAUT CUNNINGHAM INDICATED THAT SCHIRRA HAD REFERENCE TO CHANGES CONCERNING OVERLOAD SENSORS THAT THEY HAD GONE OVER PREVIOUSLY. OVER ASCENSION AT 62:27 IN THE 40TH REVOLUTION, CAP COM ASTRONAUT BILL POGUE, TALKED TO THE SPACECRAFT AT THAT TIME COMMANDER SCHIRRA INDICATED EVERYTHING WAS NORMAL, POGUE INDICATED THAT THEY HAD FINISHED THE PLAYBACK AND THAT IT WAS UNDER STUDY CONCERNING THE AC BUSS ONE AND TWO PROBLEM AND AT 62 HOURS 30 MINUTES APOLLO 7 INDICATED THAT THE COMMAND PILOT SCHIRRA AND THE LM PILOT CUNNINGHAM WERE NOW SACKING OUT, WHICH INDICATES THAT EVERYTHING AT THAT TIME, TO THEM, APPEARED TO BE NORMAL. AFTER THIS PASS, WHICH WAS A VERY UNEVENTFUL PASS, WE ALSO ASSUME THAT EVERYTHING IS NORMAL ONBOARD THE SPACECRAFT. AT THIS TIME, FROM THE GUAM PASS, WE DID NOT GET ANY BIO-MEDICAL READOUTS AGAIN. THAT'S A RECURRING SITUATION, WE'RE TRACKING THAT DOWN. UNTIL RIGHT TOWARD THE END OF THE PASS, ABOUT THE LAST 20 SECONDS OF THE PASS. AT 63 HOURS 20 MINUTES INTO THE MISSION, THIS IS APOLLO CONTROL

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 633500 (CDT 1:39) 225/1

PAO THIS IS APOLLO CONTROL, 63 HOURS,
36 MINUTES INTO THE MISSION OF APOLLO 7. WE ARE CURRENTLY
ON A NIGHTSIDE PASS. APPROACHING SOUTH AMERICA, WE ARE
COMING WITHIN RANGE OF THE REDSTONE TRACKING SHIP. WE WILL
STANDBY FOR ANY POSSIBLE CONVERSATION.

CAPCOM APOLLO 7, HOUSTON, ACQUISITION REDSTONE.
APOLLO 7, HOUSTON.

SC GO AHEAD, HOUSTON, APOLLO 7. YOU'RE
VERY WEAK, GO.

CAPCOM ROGER, WE DETECTED A CMC POWER UPHOLD
OVER GUAM. WAS THAT A VALID READING?

SC YEAH, THAT IS CORRECT. I POWERED IT
UP AND WENT STATE DETECTOR INTEGRATE AND PUT IT BACK DOWN.

CAPCOM OKAY, THANK YOU. APOLLO 7, HOUSTON.
ONE MINUTE UNTIL LOS, REDSTONE, CANARY 07.

SC ROGER.

PAO THIS IS APOLLO CONTROL, 63 HOURS,
44 MINUTES INTO THE MISSION OF APOLLO 7. WE ARE WINDING
UP OUR FOURTIETH REVOLUTION ABOUT TO ENTER ON OUR FOURTY
FIRST REVOLUTION, GO OVER SOUTH AMERICA AND COME UP ON THE
CANARY ISLANDS ACQUISITION POINT AT 07 THAT IS 40 - CORREG-
TION - 6407. AT THIS POINT, SPACECRAFT COMMANDER AND THE
LM PILOT, SCHIRRA AND CUNNINGHAM HAVE BEEN SOME ASLEEP
FOR SOME HOUR, 1 HOUR AND 15 MINUTES. EVERYTHING APPEARS
OPERATING SATISFACTORILY IN THE SPACECRAFT. AT 6345 THIS
IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 640700 (CDT 2:10A) 226/1

PAO THIS IS APOLLO CONTROL, 64 HOURS
07 MINUTES INTO THE MISSION OF APOLLO 7. WE ARE APPROACH-
ING CANARY ISLANDS. CANARY JUST HAD ACQUISITION, LET'S
JOIN THE CONVERSATION.

SC ROGER HOUSTON.

CAP COM ROGER. ... WE HAVE ABOUT A 6-1/2 MIN-
UTE PASS HERE AND THEN IT'S GOING TO BE ABOUT ONE HOUR
BEFORE WE PICK YOU UP AND THAT'LL BE OVER THE REDSTONE.

PAO THIS IS APOLLO CONTROL 64 HOURS
13 MINUTES INTO THE MISSION OF APOLLO 7. THINGS CONTINUE
QUIET. THE SPACECRAFT HAS JUST LOST ACQUISITION WITH THE
CANARY ISLANDS. THE NEXT POINT OF ACQUISITION FOR COMMUNI-
CATION WILL BE AT 65 HOURS AND 10 MINUTES WITH THE REDSTONE
TRACKING SHIP. WE HAVE NOTHING COMING UP IN THE FLIGHT
PLAN UNTIL SOME 65 HOURS AND 40 MINUTES WHERE WE HAVE AT
THIS TIME A PLANNED CONTROL CENTER FLIGHT PLAN UPDATE WHICH
WOULD BE PASSED TO THE CREW OF THE SPACECRAFT. SO, WITH A
LONG DRY SPELL COMING UP, THIS IS APOLLO CONTROL, 64 HOURS
14 MINUTES INTO THE MISSION OF APOLLO 7.

APOLLO 7 COMMENTARY, 10/14/68, GET: 651000 (CDT 3:13A) 227/1

PAO THIS IS APOLLO CONTROL 65 HOURS 10 MINUTES INTO THE MISSION OF APOLLO 7. WE ARE COMING UP INTO ACQUISITION WITH THE REDSTONE TRACKING SHIP IN A VERY FEW SECONDS. THE LAST COMMUNICATION WE HAD WAS SOME - ALMOST AN HOUR AGO. WE'LL STAND BY AND SEE WHAT TRANSPIRES IN THIS PASS.

CAP COM APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.
APOLLO 7, HOUSTON.

SC ROGER HOUSTON, APOLLO 7.

CAP COM APOLLO 7, HOUSTON. HOW DO YOU READ ME? APOLLO 7, HOUSTON, HOW DO YOU READ? APOLLO 7, HOUSTON HOW DO YOU READ? APOLLO 7, HOUSTON. SWITCH OMNI PLEASE. APOLLO 7, HOUSTON, HOW DO YOU READ?

SC BILL.

CAP COM OKAY, GOOD. I WAITED FOR CONFIRMATION BECAUSE I'M GOING TO READ OFF A FAIRLY LENGTHY FIGURE. WE HAVE A PROCEDURE DEVELOPED HERE TO ASSIST IN LOCATING THE AC BUSS PROBLEM.

SC OKAY, FINE. STAND BY AND I'LL GET SOMETHING TO WRITE IT DOWN ON. GO AHEAD WITH YOUR PROCEDURE.

CAP COM OKAY, YOU CAN PROBABLY DO IT AS I CALL IT OUT. FIRST, SWITCH AC BUSS WITH POWER IN THE FOLLOWING CABIN FAN.

SC ROGER. CABIN FANS ARE OFF.

CAP COM ROGER. CABIN FANS ARE OFF. NEXT
GLYCOL PUMP.

SC STAND BY. GLYCOL PUMP ON AC1.

CAP COM ROGER. GLYCOL PUMP ON AC1. NEXT
SUIT COMPRESSORS.

SC SUIT COMPRESSORS ON AC1.

CAP COM ROGER. AC1. DO NOT CHANGE CONFIGURATION.

SC ROGER.

CAP COM OKAY. NUMBER TWO. WE WOULD LIKE FOR YOU TO CHECK THE SIX CRYO FAN CIRCUIT BREAKERS ON PANEL 226 AND REPORT IF ANY ARE POPPED BUT DO NOT PUSH THEM IN.

SC STAND BY. ROGER ALL THE CRYO BREAKERS ARE IN.

CAP COM ROGER. UNDERSTAND ALL OF THEM ARE IN. THANK YOU VERY MUCH. OPPOSITE OMNI PLEASE?

SC STAND BY.

CAP COM APOLLO 7, HOUSTON. WE WOULD LIKE YOU TO SWITCH OMNI FOR MAXIMUM SIGNAL STRENGTH. WE'D LIKE TO GET SOME TM BEFORE WE HAVE LOS HERE AT REDSTONE WHICH IS GOING TO OCCUR IN ABOUT 45 SECONDS.

PAO THIS IS APOLLO CONTROL 65 HOURS 20 MINUTES INTO THE APOLLO 7. DURING THIS PASS AT THE REDSTONE

APOLLO 7 COMMENTARY, 10/14/68, GET: 651000 (CDT 3:13A) 227/2

PAO TRACKING SHIP WE PASSED UP INFORMATION TO DONN EISELE TRYING TO ISOLATE THE AC, THE ALTERNATING CURRENT, BUSS PROBLEM THAT OCCURRED BEFORE. WE HEARD PROCEDURES WHERE OUR ASTRONAUT POGUE HERE IN THE CONTROL CENTER WAS ASKING IF THE CABIN FANS WERE OFF, EISELE SAID YES, GLYCOL PUMP AND EISELE INDICATED IT WAS ON THE AC1 BUSS OR DISTRIBUTING POINT FOR THE AC POWER, SUIT COMPRESSORS ALSO EISELE SAID WERE ON AC1 BUSS. HE WAS THEN INSTRUCTED NOT TO CHANGE THE CONFIGURATION, LEAVE IT THE WAY IT WAS. POGUE THEN INDICATED THAT HE WOULD LIKE TO KNOW IF THE SIX CRYO FAN CIRCUIT BREAKERS COULD BE CHECKED AND IF ANY WERE POPPED, THAT IS OUT, OF THE CIRCUIT. THE REPLY FROM EISELE WAS "NO, THEY WERE ALL IN" AND THAT ENDED THE PASS EXCEPT FOR POGUE TO REQUEST HIM TO SWITCH THE OMNI ANTENNAS SO WE COULD GET A MAXIMUM SIGNAL STRENGTH. THE NEXT PASS WE WILL HAVE WILL BE AT ANTIGUA, WHICH WILL BE COMING UP AT 30 MINUTES, AH, 65 HOURS 30 MINUTES, 9 MINUTES FROM NOW. AT 65:21 THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 653000 (CDT 3:33) 228/1

PAG THIS IS APOLLO CONTROL, 65 HOURS,
30 MINUTES INTO THE MISSION OF APOLLO 7. WE ARE COMING UP
IN A FEW SECONDS IN A PASS OVER ANTIGUA. LET'S STANDBY
FOR CONVERSATION OF THAT FLIGHT.

CAPCOM APOLLO 7, HOUSTON, ACQUISITION ANTIGUA.
APOLLO 7, HOUSTON, ACQUISITION ANTIGUA.

SC ROGER, BILL, LOUD AND CLEAR.
CAPCOM ROGER. APOLLO 7, HOUSTON, 1 MINUTE
UNTIL LOS, ANTIGUA, ACQUISITION CANARY AT 40. I WILL HAVE
A FLIGHT PLAN UPDATE AT THAT TIME.

SC ROGER, BILL. SEE YOU IN ABOUT 4 MINUTES,
OKAY?

CAPCOM ROGER. FOUR OR 5 MINUTES, THAT IS COR-
RECT.

SC OKAY.
PAO THIS IS APOLLO CONTROL, 65 HOURS,
30 MINUTES INTO THE MISSION OF APOLLO 7. IN ALMOST 4 MINUTES,
WE WILL HAVE ACQUISITION AT THE CANARY ISLANDS AT 40. A
LITTLE OVER - OR LESS THAN 4 MINUTES FROM NOW, WE'LL COME
UP THEN TO SEE WHAT WILL BE PASSED UP CONCERNING THIS
AC BUS PROBLEM. AT 6536, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 654000 (CDT 3:43) 229/1

PAO THIS IS APOLLO CONTROL, 65 HOURS,
40 MINUTES INTO THE MISSION OF APOLLO 7. WE ARE COMING
UPON ACQUISITION IN ABOUT 30 SECONDS WITH CANARY ISLANDS.
SPACECRAFT COMMANDER, SCHIRRA AND LM PILOT, CUNNINGHAM, ARE
STILL IN THEIR SLEEP PERIOD. WE ARE STARTING IN ON THE
FORTY SECOND REVOLUTION, AND I FEEL THERE WILL BE SOME
CONVERSATION OVER CANARY ISLAND. LET'S LISTEN IN.

CAPCOM APOLLO 7, HOUSTON.
SC HOUSTON, APOLLO 7.
CAPCOM ROGER. I HAVE THE FLIGHT PLAN UPDATE.
SC LET'S HAVE THE UPDATE, BILL.
CAPCOM ROGER. AT 66 + 15, DELETE THE RADAR
TRANSPONDER SELF TEST.
SC ROGER, UNDERSTAND. DELETE THE PASS AT
66 + 15.
CAPCOM ROGER. AT 6900, ADD UNSTOW AND SET UP
TV CAMERA.
SC ROGER, UNDERSTAND, GET OUT THE TV.
CAPCOM ROGER. AT 69 + 50, DELETE THE REFERENCE
TO H2 HEATERS ON.
SC ROGER. NO HEATERS ON, UNDERSTAND.
CAPCOM ROGER. AT 70 HOURS, 70 + 00, ADD FUEL
CELL 02 PURGE.
SC ROGER. FUEL CELL 02 PURGE AT 70 HOURS.
CAPCOM ROGER. AND THAT IS 71 + 41, TV ON.
SC ROGER. YOU WANT THE TV ON AT THE SAME
TIME WHEN WE PLAN TO RUN THE RADAR TEST, IS THAT CORRECT?
CAPCOM NO, I THINK THE - RENDEZVOUS RADAR TEST
IS - STANDBY 1. YOU'RE RIGHT. WAIT JUST A MINUTE. LET ME
GET THIS SET UP.
SC OKAY.
CAPCOM MEANTIME, WOULD YOU SWITCH ON ME, PLEASE?
SC ROGER.
CAPCOM APOLLO 7, HOUSTON. WOULD YOU CONFIRM
OPPOSITE ON ME? WE ARE HAVING A LITTLE TROUBLE ON TM.
SC ROGER. I CAN SEE THE AREA OUTSIDE
BRAVO.
CAPCOM ROGER. AND THAT IS THE CORRECT TIME
FOR TV ON.
SC ROGER. TB ON AT 71 + 41. IS THAT
RIGHT?
CAPCOM AFFIRMATIVE. THAT IS THE END OF THE
FLIGHT PLAN UPDATE.
SC ROGER. IF YOU DON'T WANT THE TV ON
UNTIL SUNDAY, 1 HOUR AND 40 MINUTES, I THINK WE WILL HOLD
OFF IN UNSTOWING IT. THE THING IS IN THE WAY WHEN IT IS UP,
AND I WOULD RATHER NOT BE RUNNING INTO IT ALL THE TIME.
CAPCOM I DIDN'T HEAR IT.

APOLLO 7 COMMENTARY, 10/14/68, GET: 654000 (CDT 3:43) 229/2

SC UNDERSTAND YOU WANT THE TV RUNNING AT
THE SAME TIME - OR WILL BE DOING THE RADAR TEST.
CAPCOM THAT'S AFFIRMATIVE. THAT'S THE CONFIR-
MATION I GET HERE.

SC ALL RIGHT.
CAPCOM APOLLO 7, HOUSTON, OPPOSITE OMNI
PLEASE.

SC ROGER.
CAPCOM AND APOLLO SAYS TO HOUSTON FOR YOUR
INFORMATION, I AM PRETTY SURE THIS TV ON TIME IS TIED INTO
THE TEXAS ACQUISITION TIME.

SC YEAU, THAT FIGURES.
CAPCOM APOLLO 7, HOUSTON. WOULD YOU CONFIRM
THE REPORT THE POSITION ON YOUR PMP POWER SWITCH?

SC STANDBY. PMP IS A NORMAL SPOT.
CAPCOM NORMAL. WOULD YOU GO TO OFF, PLEASE?

SC ROGER.
CAPCOM APOLLO 7, HOUSTON, 1 MINUTE LOS, CANARY,
CARNARVON AT 18.

SC ROGER.
PAO THIS IS APOLLO CONTROL, 65 HOURS,
50 MINUTES INTO THE MISSION OF APOLLO 7. IN THIS LAST
PASS OVER CANARY ISLANDS, WE HAD A FLIGHT PLAN UPDATE
THAT CONSISTED OF DELETING THE RADAR - TESTS AT 6 HOURS,
15 MINUTES. AT 69 HOURS, ADDING AN UNSTOW AND SETTING UP
OF THE TV CAMERA ONBOARD THE SPACECRAFT. AT 69 HOURS,
50 MINUTES, THEY HAVE DELETED THE REFERENCE TO THE H2 HEAT-
ERS ON. AT 70 HOURS, THEY ADDED FUEL CELL OXYGEN PURGE.
AND THE BIG ONE AT 7141 INTO THE MISSION - THE SCHEDULE
FOR THE TV ON. THE SIGNAL WOULD BE RECEIVED AT CORPUS
CHRISTI, TEXAS. IT WOULD GO THROUGH THE CONVERSION PROCESS,
AND THEN BE RELEASED. EISELE ASKED AT THAT POINT - INDICAT-
ED THAT IT SEEMED TO HIM THAT IT WAS THE SAME TIME AS THE
RENDEZVOUS RADAR TESTS. CAPCOM INDICATED "YES, YOU'RE
RIGHT, AND TO STANDBY." AND THEN HE CAME BACK AND SAID,
"THAT IS THE CORRECT TIME, 71 HOURS, 41 MINUTES INTO THE
MISSION." EISELE INDICATED THAT THEY WOULD LIKE TO HOLD
OFF IN UNSTOWING THE TV, IF POSSIBLE BECAUSE IT IS IN THE WAY
WHEN THEY ARE MOVING AROUND INSIDE THE SPACECRAFT. CAPCOM
POGUE AT THAT POINT, INDICATED THAT AS LONG AS THE TIME OF
71 HOURS, 41 MINUTES INTO THE MISSION WAS MET FOR TV ON,
THEY COULD DO AS THEY WISHED. IT WAS ALSO INDICATED THAT
THE TIME FOR TV ON, COINCIDES WITH THE TEXAS ACQUISITION
COMING OVER THE UNITED STATES. AT 65 HOURS, 52 MINUTES
INTO THE MISSION OF APOLLO 7, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 661800 (CDT 4:21A) 230/1

PAO THIS IS APOLLO CONTROL 66 HOURS 18 MIN-
UTES INTO THE MISSION OF APOLLO 7. WE'RE COMING UP NOW
OVER CARNARVON, AUSTRALIA. WE SHOULD HAVE ACQUISITION IN
SOME 25 SECONDS FROM NOW. ON OUR 42ND REVOLUTION, LET'S
STAND BY FOR CONVERSATION.

CAP COM APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.

SC ROGER, HOUSTON, APOLLO 7, GO.

CAP COM ROGER. ACQUISITION CARNARVON AND I'D
LIKE FOR YOU TO CHECK A COUPLE OF THINGS FOR US PLEASE.
S-BAND NORMAL MODE PCM SWITCH TO PCM AND THE POWER AMPLIFIER
BARBER POLE.

SC ROGER. POWER AMP IN BARBER POLE AND
THE PCM SWITCH IS IN PCM.

CAP COM THANK YOU. APOLLO 7, HOUSTON. ONE
MINUTE LOS CARNARVON. REQUEST S-BAND VOLUME UP FOR HONEY-
SUCKLE AT 25.

SC ROGER.

CAP COM APOLLO 7, HOUSTON. ACQUISITION HONEY-
SUCKLE.

PAO THIS IS APOLLO CONTROL 66 HOURS 32 MIN-
UTES INTO THE MISSION. WE HAD VERY LITTLE CONTACT ON THAT
PASS. WE'RE COMING UP ON REDSTONE TRACKING SHIP AT 66:45.
AT 66:32 INTO THE MISSION, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 664600 (CDT 4:49A) 231/1

PAO THIS IS APOLLO CONTROL, 66 HOURS
46 MINUTES INTO THE MISSION OF APOLLO 7. WE'RE COMING UP
ON ACQUISITION WITH REDSTONE, LET'S LISTEN IN.

SC ROGER HOUSTON.

CAP COM APOLLO 7, HOUSTON.

SC 7 GO.

CAP COM ROGER. HAVE YOU MADE ANY CHANGE IN
THE COMM SYSTEM, PARTICULARLY TM SETTINGS?

SC YEAH, I TOOK THE RECORDER FOR ABOUT
30 SECONDS (GARBLED) HAVEN'T MONKEYED WITH THE TM SETTING.

CAP COM OKAY.

SC DO YOU HAVE THAT ... TAPE.

CAP COM HAVE WE GOT WHAT?

SC ROGER. I PUT THE TAPE IN ... FOR
30 SECONDS TO RECORD SOMETHING AND THEN LEFT IT OFF SO IT
WOULDN'T ... RUN.

CAP COM NO, I DON'T THINK THAT'LL DO ANY
HARM.

SC ARE YOU RECEIVING THINGS ON TAPE
DUMP.

CAP COM DID YOU GO TO UP TELEMETRY COMMAND
RESET? APOLLO 7, HOUSTON. DID YOU GO TO UP TELEMETRY
COMMAND RESET? APOLLO 7, HOUSTON. APOLLO 7, HOUSTON IF
YOU READ GO TO S-BAND OFF TO TAPE. APOLLO 7, HOUSTON.
ABOUT 30 SECONDS TO LOS, ANTIGUA AT 03.

PAO THIS IS APOLLO CONTROL 66 HOURS
54 MINUTES INTO THE MISSION. WE HAD AN EXCHANGE THERE
BETWEEN CAP COM AND THE SPACECRAFT CONCERNING TELEMETRY.
THERE'S NO BIG PROBLEM BUT IN THIS PARTICULAR PASS WE DID
NOT RECEIVE SATISFACTORY TELEMETRY FROM THE SPACECRAFT.
WILL NO DOUBT CONTACT THEM IN THE NEXT STATION WHICH WILL
BE ANTIGUA AT 67:03 INTO THE MISSION. AT 66:54 THIS IS
APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 670300 (CDT 5:06) 232/1

PAO THIS IS APOLLO CONTROL, 67 HOURS,
3 MINUTES INTO THE MISSION OF APOLLO 7. WE ARE NOW COMING
UP IN A FEW SECONDS WITH ACQUISITION WITH ANTIGUA. WE WILL
BE STARTING IN THE FORTY THIRD REVOLUTION OF THE FLIGHT OF
APOLLO 7. LET'S LISTEN IN.

CAPCOM APOLLO 7, HOUSTON.

SC THIS IS 7.

CAPCOM ROGER, ACQUISITION, ANTIGUA.

SC ROGER.

CAPCOM I WOULD LIKE TO GET A CONFIRMATION ON
SOMETHING. DID YOU GO TO COMMAND RESET WHEN YOU USE THE
TAPE?

SC THAT'S AFFIRMATIVE.

CAPCOM ROGER. GROUND ADVISORS DO NOT USE DSE
AS VOICE LOG. WE HAVE LOST TM SUBCARRIER. AND WE CAN'T
GET DATA WHILE YOU ARE DUMPING. WE'RE WORKING ON IT; WE'RE
TRYING TO FIX IT.

SC ROGER, SAY AGAIN.

CAPCOM WE'RE WORKING A - LOST TM SUBCARRIER
PROBLEM.

SC ROGER.

CAPCOM ALSO WE WOULD LIKE S-BAND OFF TO TAPE.

SC ROGER, IT'S TO TAKE.

CAPCOM THANK YOU. APOLLO 7, HOUSTON.

SC APOLLO 7.

CAPCOM ROGER. APOLLO 7, HOUSTON. WE WOULD
LIKE FOR YOU TO STAY IN THE PRESENT COMM CONFIGURATON UNTIL
FURTHER ADVICE. WE ARE HAVING SOME DIFFICULTIES ON THAT TM.

SC ROGER, UNDERSTAND.

PAO THIS IS APOLLO CONTROL, 67 HOURS,
13 MINUTES INTO THE MISSION OF APOLLO 7. WE HAVE LOST
ACQUISITION. ANTIGUA WILL COME UP THE CANARY ISLANDS IN
JUST ABOUT 2 MINUTES FROM NOW. WE STILL HAVE SOME - SOME
TELEMETRY PROBLEM. AND THEY ARE FIGURING OUT WHAT TO DO
ABOUT IT AT THIS TIME. SO WE WILL JUST STANDBY FOR THE
NEXT PASS AT CANARY ISLANDS WHICH SHOULD BE IN A MINUTE
OR HALF OR SO.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 671400 (CDT 5:17) 233/1

CAP COM APOLLO 7, HOUSTON. ACQUISITION CANARY.
SC ROGER, HOUSTON.
CAP COM WE'LL BE AT CARNARVON ABOUT 50, I WILL
HAVE A STATE VECTOR FOR YOU THEN.
SC ROGER. UNDERSTAND.
CAP COM APOLLO 7, HOUSTON. OPPOSITE OMNI.
SC ROGER. STAND BY.
CAP COM APOLLO 7, HOUSTON. ONE MINUTE LOS
CANARIES. CARNARVON AT 50. WOULD LIKE POO AT CARNARVON
ACQUISITION.
SC ROGER, WILL HAVE IT.
CAP COM THANK YOU.
PAO THIS IS APOLLO CONTROL 67 HOURS 23 MIN-
UTES INTO APOLLO 7. WE ARE LOOKING FOR THE SPACECRAFT OVER
CARNARVON AT 67 HOURS AND 50 MINUTES. AT THAT TIME, THE
LAST COMMUNICATION FROM CAP COM POGUE TO ASTRONAUT EISELE
IN THE SPACECRAFT WAS THEY WANTED POO AT CARNARVON WHICH
MEANS THE PLATFORM OF THE INERTIAL MEASURING UNIT ON BOARD
THE SPACECRAFT, PART OF THE GUIDANCE SYSTEM, TO BE IN IDLE-
ING POSITION AT CARNARVON. AT 67 HOURS 23 MINUTES AND GOING
INTO OUR 43RD REVOLUTION AROUND THE EARTH WITH APOLLO 7,
THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 675000 (CDT 5:52) 234/1

PAO THIS IS APOLLO CONTROL, 67 HOURS,
50 MINUTES INTO THE MISSION OF APOLLO 7. WE'RE COMING UP
NOW ON CARNARVON, AND WITHIN ABOUT 25 SECONDS WE SHOULD
HAVE ACQUISITION. LET'S STANDBY FOR THE CONVERSATION.

CAPCOM APOLLO 7, HOUSTON.
SC GO AHEAD, HOUSTON.
CAPCOM ROGER, CONFIRM TO AND ACCEPT.
SC ROGER, I'M AM TOO. I'M HERE TO ACCEPT.
I WOULD LIKE FOR YOU TO TAKE A LOOK AT THIS PROGRAM ALARMED
1105 THAT WE HAVE BEEN GETTING OFF AND ON TO THE PLAY. I
GOT TO BEGIN YOU ABOUT 5 MINUTES AGO.

CAPCOM ROGER, STANDBY. 46.
SC I DO ACCEPT NOW.
CAPCOM ROGER. HAVE A MAIN CHECK TO GO WITH
THE CSM NOW THAT IT IS COMING UP, IF YOU CAN GET READY
TO COPY THAT. AND I ALSO HAVE AN UPDATE FOR THE RENDEZVOUS
RADAR TESTS.

SC ROGER. GO AHEAD, IT'S YOUR MONTH CHECK.
CAPCOM ROGER, MONTH CHECK. 071110000 MINUS
2 NINER 14 + 14170, 15 NINER 3.
SC ROGER. 071110000 MINUS 2 NINER
14 + 14170, 15 NINER 3.
CAPCOM READBACK IS CORRECT. WHEN YOU ARE READY I
CAN GIVE YOU THE RENDEZVOUS RADAR TEST UPDATE.
SC GO AHEAD WITH THAT UPDATE.
CAPCOM ROGER. STARTING WITH THE ALINE.
70 + 58, 15 NINER DEGREES, 055017, 71 + 3 NINER, 71 + 43.
SC ROGER, UNDERSTAND. 70 + 58, 15 NINER,
055017, 71 + 3 NINER, 71 + 43.
CAPCOM READBACK IS CORRECT. DON, I HAVE A
ANALYSIS TO THIS AC PROBLEM. I'LL GO OVER IT AND SEE WHAT
YOUR COMMENTS ARE.

SC OKAY, GO AHEAD.
CAPCOM OKAY, POINT 1, WE HAVE SPENT CONSID-
ERABLE TIME GOING THROUGH THE DATA HERE. AND WE HAVE NOTICED
THAT THE AC BUS GLICHES ARE ASSOCIATED WITH THE CYCLING OFF
OF O2 CRYO FANS. THIS HAS CAUSED THE AC BUS TO SURGE TO
OVER VOLTAGE. IT SEEMS AS THOUGH THIS IS ONLY A PROBLEM AT
LOW POWER LOADS ON THE AC BUS, BUT IT HAS BEEN NOTICED
REPEATEDLY.

SC OKAY, THAT - SOUNDS PRETTY LOGICAL.
CAPCOM POINT 2, RECOMMENDATION O2 FANS, TANK 1,
OFF, DO THAT. THIS WILL INSURE AC 1 STAYS ON LINE. IF OUR
ANALYSIS OF THE PROBLEM IS CORRECT.

SC ROGER, WHAT ABOUT AC 2, WE HAVE THAT
ONE ALSO.
CAPCOM ROGER, YOU HAVE THAT ONE ON. WE WILL
PERIODICALLY SWITCH O2 FANS, TANK 1 BACK TO THE ON POSITION.
AT THE SAME TIME, O2 FANS, TANK 2 OFF. THIS WILL INSURE AT

APOLLO 7 COMMENTARY, 10/14/68, GET: 675000 (CDT 5:52) 234/2

CAPCOM LEAST 1 AC BUS IS PROTECTED AT ALL TIMES
FROM THIS 30 TO OVER VOLTAGE.

SC ROGER, I SEE. IF WE GET FIRED UP AGAIN,
DO YOU THINK WE WILL STILL HAVE THIS PROBLEM?

CAPCOM I'M NOT SURE. IT SEEMS AS THOUGH IT IS
NOT NEARLY AS MUCH A PROBLEM WHEN YOU'RE POWERED UP, IT IS
ONLY WHEN YOU'RE IN A LOW POWER CONDITION. THE VOLTAGE
CONTROL IS MORE SENSITIVE OR TENDS TO OVERSHOOT OR SOME-
THING THERE.

SC OKAY, I'LL TURN TANK 1 OFF FOR NOW.

CAPCOM RIGHT, UNDERSTAND.

SC WHEN ARE THEY GOING TO GET SOME (GARBLE)

NAVIGATION TESTS?

CAPCOM ROGER; WE HAVE TAKEN THAT INTO CONSIDERATION.

SC OKAY.

CAPCOM APOLLO 7, HOUSTON; OPPOSITE OMNI.

SC ROGER.

CAPCOM APOLLO 7, HOUSTON. WE ARE HAVING A LITTLE
TROUBLE GETTING THE CSN NAV UP; IF WE DON'T DO IT, I'LL READ
IT UP TO YOU OVER HSK; THAT'LL BE ABOUT 67 PLUS 59 AND WILL
REQUIRE S BAND VOLUME UP.

SC ROGER.

CAPCOM APOLLO 7, HOUSTON.

SC GO AHEAD.

CAPCOM ROGER; I'M GOING TO HAVE TO READ YOU THE
B27 UPDATE IF YOU HAVE THE PAD OUT THERE. APOLLO 7, HOUSTON;
DO YOU READ?

CAPCOM APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.
WE WILL NOT HAVE TO GIVE YOU A B27 UPDATE WHERE WE WERE GOING
TO UPLINK IT. APOLLO 7, HOUSTON; DO YOU READ? APOLLO 7,
HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 680700 (CDT 6:09A) 235/1

PAO THIS IS APOLLO CONTROL 68 HOURS 8 MINUTES INTO THE MISSION OF APOLLO 7. DURING THIS PASS WE HEARD ASTRONAUT POGUE, OUR CAP COM HERE AT MCC, UPDATE THE COMMAND MODULE COMPUTER ON THE PROGRAM P-27 IT'S CALLED. HE UPDATED FOR THE RENDEZVOUS RADAR TEST AND ALSO INDICATED THAT THE AC BUSS PROBLEM WE HAD REACHED A TENTATIVE CONCLUSION HERE IN THE CONTROL CENTER AND THAT WAS THAT THE GLITSCH IS ASSOCIATED WITH THE CYCLE OF THE OFF POSITION OF BOTH OF THE O2 CRYOGENIC FANS, THAT'S THE CRYOGENIC OXYGEN FANS, CAUSES SURGING OF THE AC ALTERNATING CURRENT BUSES OR DISTRIBUTION POINTS TO OVERVOLTAGE CONDITIONS. THAT'S A PROBLEM, IT SEEMS, AT LOW LOADS ON THE AC BUSES. THE PROPOSED SOLUTION WAS INDICATED TO BE THAT THE O2 FANS FOR TANK NUMBER TWO SHOULD BE ON, THE O2 FANS FOR TANK NUMBER ONE SHOULD BE OFF. IF THE ABOVE SOLUTION WORKS OUT, IF ITS CORRECT, THEN THE AC ONE BUSS WOULD STAY ON THE LINE. PERIODICALLY THEY PROPOSE TO SWITCH THE O2 FANS IN TANK NUMBER ONE TO ON AND THE O2 FANS ON TANK NUMBER TWO TO OFF AT THAT TIME THEREBY KEEPING ONE ON AND ONE OFF AT ALL TIMES TO TEST OUT THIS SOLUTION. IN THAT WAY, ONE AC BUSS WOULD BE PROTECTED AT ALL TIMES FROM THAT OVERVOLTAGE CONDITION. THIS WAS ACKNOWLEDGED BY DON EISELE IN THE SPACECRAFT AND THIS IS THE SOLUTION THAT THEY ARE NOW TESTING OUT. WE ANTICIPATE A PASS OVER THE UNITED STATES, WILL BE IN ACQUISITION TEXAS AT 68 HOURS 34 MINUTES. AT 68 HOURS 10 MINUTES, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 683400 (CDT 6:37A) 236/1

PAO THIS IS APOLLO CONTROL 68 HOURS 34 MINUTES INTO THE MISSION OF APOLLO 7. SPACECRAFT IS APPROACHING AMERICA. IT WILL BE OVER TEXAS VERY SHORTLY AT WHICH TIME WE SHOULD HAVE SOME UPDATES FOR THE CREW. LET'S JOIN THE CONVERSATION.

CAP COM APOLLO 7, HOUSTON THROUGH TEXAS.

SC ROGER, HOUSTON, APOLLO 7.

CAP COM ROGER. GOOD MORNING.

SC AND HOW ARE YOU DOING?

CAP COM VERY GOOD.

SC OH, VERY WELL.

CAP COM APOLLO 7, HOUSTON.

SC GO.

CAP COM DONN, I'VE GOT YOUR BLOCK DATA NUMBER EIGHT FOR YOU ALSO COULD YOU SWITCH BIOMED SWITCH TO CDR AND COULD YOU CONFIRM THAT YOU HAVE TURNED THE CRYO FANS TANK ONE OFF?

SC ROGER. CRYO FAN TANK ONE IS OFF AND WALLY'S STILL ASLEEP, I BELIEVE HE DOESN'T HAVE HIS BIOMED HOOKED UP.

CAP COM OKAY, COPY THAT.

SC WILL GET IT ON HIM WHEN THEY GET UP.

CAP COM OKAY, REAL FINE.

SC YOU CAN GO WITH YOUR BLOCK UPDATE.

CAP COM OKAY, IF YOU'RE READY BLOCK NUMBER

EIGHT 045 DASH 1A + 311 - 0638 069 + 57 + 34, 4259 046 DASH 1A + 313 - 0638 071 + 33 + 1A, 4405 047 DASH 1A + 272 - 0649 073 + 08 + 47, 4593 048 DASH 4A + 297 - 1650 075 + 52 + 37, 4202 049 DASH 4B + 318 - 1650 077 + 28 + 29, 4321 050 DASH 3A + 265 + 1371 078 + 47 + 51, 4161.

SC SORRY, JACK, I'M GOING TO HAVE TO ASK YOU TO RUN THIS BACK IN A LITTLE SLOWER AND IT MIGHT DO TO STOP NOW AND THEN SO I CAN BUTT IN AND TELL YOU IF I'M MISSING ANY.

CAP COM OKAY, DONN. I GUESS I'M A LITTLE FASTER THAN YOU ARE THIS MORNING. AH, OKAY DID YOU GET - AH, WHERE DO YOU WANT ME TO START? FROM THE BEGINNING?

SC YEAH, I THINK YOU MIGHT AS WELL.

CAP COM OKAY, GOING BACK. 045 DASH 1A + 311 - 0638 069 + 57 + 34, 4259 046 DASH 1A + 311 - 0638 071 + 33 + 18, 4405 047 DASH 1A + 272 - 0649 073 + 08 + 47, 4593 048 DASH 4A + 297 - 1650 075 + 52 + 37, 4202 049 DASH 4B + 318 - 1650 077 + 28 + 29, 4321 050 DASH 3A + 265 + 1371 078 + 47 + 51, 4161 END.

SC OKAY, READBACK FOLLOWS 045 DASH 1A + 311 - 0638 069 57 34 4259, 046 1 ALPHA + 322 - 0638 071 33 18, 4405 047 1 ALPHA + 272 - 0649 073 08 47 4593, 048 DASH 4 ALPHA --

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 684300 (CDT 6:46A) 237/1

SC 073 08 47 4593 048 PLUS 4 ALPHA PLUS
297 MINUS 1650 0755237 0202 049-0 BRAVO PLUS 318 MINUS 2690
07728294321 050-3 ALPHA PLUS 265 PLUS 1371 0784751 4161.
CAPCOM ROGER.
CAPCOM DONN, COULD YOU READ THE LATITUDE IN
046-1 ALPHA?
SC THAT'S PLUS 311.
CAPCOM SHOULD BE PLUS 313.
SC ROGER, 313, THANK YOU.
CAPCOM OKAY, THAT'S GOT IT.
SC JACK?
SC HOUSTON, APOLLO 7.
CAPCOM APOLLO 7, HOUSTON, GO AHEAD.
SC ROGER. (GARBLED)
CAPCOM I DIDN'T COPY THAT DONN, SAY AGAIN.
SC OKAY. POINT OF PRESSURE AT ON THE CABIN
IS 235 MILLIMETERS.
CAPCOM ROGER, COPIED THAT, AND DONN, WE'RE
THROUGH AT THE COMPUTER NOW, YOU CAN GO TO BLOCK ON YOUR
UPHELD SWITCH. ALSO YOU HAVE A GO FOR 62-1.
SC ROGER, UNDERSTAND, GO FOR 62-1.
PAO THIS IS APOLLO CONTROL 68 HOURS 48 MINUTES
INTO THE MISSION. WE ARE COMING UP ON CANARY ISLANDS AT
68 HOURS 50 MINUTES AND 1 SECOND FROM NOW SO WE WILL CONTINUE
TO STAY LIVE FOR THAT 7 MINUTE PASS, AFTER WHICH TIME WE
WILL HAVE A WRAP UP OF SUMMARY OF THE LAST 8 HOURS OR SO
OF THE MISSION. SO LETS STANDBY FOR ANYTHING FROM CANARY.
CAPCOM APOLLO 7, HOUSTON, THROUGH THE CANARIES
STANDING BY.
SC ROGER. WE ARE POWERING UP THE SCS FOR
THE G AND N AT THIS TIME.
CAPCOM ROGER, COPY.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 685300 (CDT 6.56A) 238/1

SC HOUSTON, APOLLO 7.
CAPCOM GO AHEAD 7.
SC ROGER, WE TOOK FRAMES 44 THROUGH 47 ON
MAGAZINE O, OSCAR, AT 68 HOURS AND 54 MINUTES. THIS IS A
PICTURE OF THE WEATHER FORMATIONS AROUND THE CANARIES.
SC OKAY, ROGER, COPY THAT. DONN WHEN YOU
GET A CHANGE WE WOULD LIKE YOU TO SWITCH YOUR FLOW PROPORTION-
ING VALVE TO 1 THEN BACK TO AUTO AGAIN.
SC OKAY, DONE.
CAPCOM THANK YOU. APOLLO 7, HOUSTON. YOU'RE
ABOUT 30 SECONDS LOS CANARY. YOU SURE LOOK GOOD GOING OVER
THE HILL, WE'LL PICK YOU UP AT CARNARVON IN ABOUT 28 MINUTES.
PAO THIS IS APOLLO CONTROL, 68 HOURS, 57 MIN-
UTES INTO THE MISSION OF APOLLO 7. CAPCOM HAS INDICATED THE
SPACECRAFT LOOKS GOOD GOING OVER THE HILL, AND THEY WILL BE
PICKED UP AT CARNARVON AT 69 HOURS, 25 MINUTES. WE WILL HAVE
A NOT TOO BRIEF, I'M AFRAID, RUNDOWN ON THE LAST 8 HOURS OF
OPERATION IN THE CONTROL CENTER HERE. BEGINNING AT 61 HOURS,
27 MINUTES OVER TRACKING SHIP MERCURY AND REVOLUTION 39,
APOLLO 7 REPORTED CAUTION AND WARNING PANEL PROBLEMS. THEIR
COMMUNICATION WAS HARD TO READ. ON THE NEXT STATION, THE
REDSTONE TRACKING SHIP AT 62 HOURS, 1 MINUTE IN THE SAME
REVOLUTION, CAPCOM POGUE CONTACTED THE CREW AND INDICATED
THAT THE DATA WAS DUMPED OVER GUAM AND IT WAS BEING ANALYZED
HERE AT THE CONTROL CENTER. A REVIEW OF CAUTION AND WARNING
PANEL PROBLEMS FOLLOWED AND THAT REVIEW INDICATED THAT AT
61 HOURS AND 5 MINUTES, THE MASTER ALARM LIGHT WENT ON. AT
THIS TIME, THE FUEL CELLS WERE INDICATING OVER 20 AMPS OR
AMPERES FLOW FOR EACH ONE, AVERAGE. THERE WAS NO CAUTION
AND WARNING LIGHT PRECEEDING THE MASTER ALARM LIGHT GOING
ON. THEY RESET THE MASTER ALARM SATISFACTORILY AND AT
61 HOURS, 14 MINUTES, AC BUS 1 AND AC BUS 2 FAILURE OCCURRED.
ALTERNATING CURRENT THROUGH THE AC BUSSES IS A DISTRIBUTING
POINT FOR THE AC CURRENT TO GO TO THE SEVERAL SYSTEMS OF THE
SPACECRAFT TO UTILIZE SUCH CURRENT. AFTER THAT FAILURE,
THEY RESET AC BUS 1 AND AC BUS 2 SATISFACTORILY, THEN AT
61 HOURS, 30 MINUTES, THEY NOTED THAT THE FUEL CELLS AVERAGED
15 AMPS EACH. ASTRONAUT SCHIRRA INDICATED THIS IS THE THIRD
AC BUS 1 FAILURE AND THE FIRST AC BUS 2 FAILURE. IF IT WAS
DUE TO TRANSIENT OVER VOLTAGE, THE QUESTION WAS WHY WOULD
BOTH BUSSES FAIL. THE DECREASE IN AMPS - AMPERAGE FROM
20 TO 15 AMPS AVERAGE COULD BE DUE, IT WAS INDICATED TO
THE SPACECRAFT POWER DOWN OR A CYCLIC LOADS. HE SUGGESTED
THAT THEY - DOWN AT THE CONTROL CENTER HERE - CHECK THE
CONFIGURATION AND THE INVERTER SAFETY WIRING, AT WHICH
POINT ASTRONAUT WALT CUNNINGHAM, THE LMP CHIMED IN AND
INDICATED THAT HE FELT ASTRONAUT SCHIRRA WAS REFERRING TO

APOLLO 7 COMMENTARY, 10/14/68, GET: 685300 (CDT 6.56A) 238/2

PAO CHANGES IN THE OVERLOAD SENSORS. OVER ASCENSION AT 62 HOURS, 27 MINUTES IN THE 40TH REVOLUTION, CAPCOM POGUE AGAIN CONTACTED THE SPACECRAFT. SCHIRRA INDICATED THAT EVERYTHING WAS NORMAL. POGUE INDICATED THAT THEY HAD FINISHED THE PLAYBACK OF THE AC BUS TROUBLE AND IT WAS CURRENTLY BEING STUDIED HERE BY THE CONTROL CENTER. APOLLO 7 THEN INDICATED THAT THE CDR, SCHIRRA, AND THE LMP, CUNNINGHAM WERE SACKING OUT NOW. OVER THE REDSTONE TRACKING SHIP, IT'S 63 HOURS, 38 MINUTES IN THE 40TH REVOLUTION. POGUE CONTACTED THE SPACECRAFT AND ASKED THE QUESTION WAS THE COMMAND MODULE COMPUTER POWER UP OVER GUAM. EISELE INDICATED YES, IT WAS FOR A SHORT WHILE, THEN IT WAS SWITCHED OFF. POGUE INDICATED THAT THE PROCEDURE AT 65 HOURS, 14 MINUTES OVER THE REDSTONE AGAIN, REVOLUTION 41, FOR ISOLATING THE EC BUS PROBLEM. POGUE ASKED WHAT POSITION THE CABIN FAN CONTROL IN, EISELE INDICATED OFF. WE ASKED THE GLYCOL PUMP POSITION, EISELE INDICATED ON AC BUS 1 THE SUIT COMPRESSOR POSITION WHICH WAS ON AC BUS 1. POGUE THEN INDICATED THAT ASTRONAUT EISELE SHOULD NOT CHANGE THAT CONFIGURATION, ALSO INDICATED THAT HE SHOULD CHECK THE CRYOGENIC FAN CIRCUIT BREAKERS, IF ANY WERE POPPED OUT AND IF THEY WERE, NOT TO PUSH THEM. THE REPLY FROM THE SPACECRAFT WAS ALL OF THEM WERE IN. OVER ANTIGUA, AT 65 HOURS, 35 MINUTES AND REVOLUTION 42, CAPCOM POGUE GAVE THE CREW A FLIGHT PLAN UPDATE AND THAT INDICATED THAT AT 66 HOURS, 15 MINUTES THEY WOULD DELETE THE RADAR TRANSPONDER SELF TEST. AT 69 HOURS, THEY WOULD ADD INTO THE FLIGHT PLAN UNSTOW AND SET UP THE TV CAMERA. AT 69 HOURS, 50 MINUTES TO DELETE REFERENCE TO THE H2 HEATERS ON. AT 70 HOURS, TO ADD FUEL O2 PURGE. AT 71 HOURS, 41 MINUTES TO INCICATE TV ON. THAT WOULD BE 944 CENTRAL DAYLIGHT TIME. EISELE ASKED THE QUESTION AT THAT TIME, WOULD THE TV BE SCHEDULED TO BE ON AT THE SAME TIME AS THE RENDEZVOUS RADAR TEST, OVER THE STATESIDE PASS? POGUE REPLIED, YOU'RE RIGHT, STANDBY. THEN HE CHECKED AND CAME BACK TO THE CREW, TO EISELE WITH THE INFORMATION THAT THAT WAS THE CORRECT TIME. EISELE SAID, IF THE TV IS NOT ON UNTIL 71 HOURS, 40 MINUTES, HE FELT THEY WOULD HOLD OFF INSTALLING THE TV FROM THE SCHEDULED TIME OF 69 HOURS, SINCE IT WOULD BE IN THE WAY OF THE CREW MEMBERS MOVING AROUND IN THE SPACECRAFT. POGUE INDICATED 7141 IS THE CORRECT TIME FOR TV ON. AND TV ON COINCIDES WITH THE TEXAS ACQUISITION. AT REDSTONE AGAIN, 66 HOURS, 46 MINUTES, REVOLUTION 42, SOME TELEMETRY PROBLEMS WERE ENCOUNTERED. THEY RECEIVED NO TELEMETRY HERE AT THE CONTROL CENTER DURING THAT PASS FROM THE PM, PULSE MODULATION, USB. THEN OVER ANTIGUA AT 67 HOURS, 4 MINUTES, REVOLUTION 43, THEY ARE STILL WORKING ON THE

APOLLO 7 COMMENTARY, 10/14/68, GET: 685300 (CDT 6:56A) 238/3

PAO TM PROBLEM, THEY STILL HAD NO PM AND OVER THE CANARY ISLANDS AT 67 HOURS, 15 MINUTES ON THE SAME REVOLUTION, THE SAME CONDITION EXISTED; HOWEVER, THEY COULD RECEIVE AND STILL CAN RECEIVE TM ON THE FM BAND OF THE USB, AS A BACKUP MODE. THERE ARE TWO IDEAL PRIME MODES ON USB, PULSE MODULATION, PM, IS FOR THE TELEMETRY AND ALSO FOR THE TV SYSTEM; AND FM, FREQUENCY MODULATION, IS FOR DUMPS OF INFORMATION AND REAL-TIME DATA. WHEN - SINCE THE PM PORTION IS OUT, THAT CUTS OUT 50 PERCENT OF THE CAPABILITY OF THE USB, WHICH SIMPLY MEANS THAT THE TM AND THE TV WOULD HAVE TO ALTERNATE WITH DUMPS AND REAL-TIME DATA, USING THE FM SYSTEM AS A BACKUP MODE. OVER CANARY ISLANDS AT 67 HOURS, 15 MINUTES, REVOLUTION 43 CAPCOM POGUE INDICATED THAT THE INERTIAL MEASURING UNIT SHOULD GO TO IDLE OR PU AS IT IS REFERRED TO AT CARNARVON, AND THERE IS STILL NO PM AT THAT TIME, SO THEY'RE STILL USING THE FM BACKUP MODE FOR TELEMETRY AND DATA DUMPS. OVER CARNARVON AT 67 HOURS, 50 MINUTES, REVOLUTION 43 CAPCOM POGUE TALKED TO THE SPACECRAFT AGAIN, AND UPDATED THE SPACECRAFT WITH A PROGRAM 27, COMMAND MODULE COMPUTER UPDATE. RENDEZVOUS RADAR TEST UPDATE AND TALKED ABOUT THE AC BUS PROBLEM, WHICH WE HAVE ENCOUNTERED. THE CONCLUSION FROM THE CONTROL CENTER HERE WAS THAT THE GLITCHES ASSOCIATED WITH THE CYCLE OF OFF POSITION OF BOTH OF THE OXYGEN CRYOGENIC FANS, CAUSED A SURGING OF THE AC BUSES OR ...

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 690800 (CDT 07:11 AM) 239/1

PAO WHICH IS ASSOCIATED WITH THE CYCLE OF OFF POSITION OF BOTH OF THE OXYGEN CRYOGENIC FANS, CAUSING SURGING OF THE AC BUSES OR DISTRIBUTION POINTS, TO OVERVOLTAGE CONDITIONS. IT SEEMS TO BE A PROBLEM AT LOW LOADS ON THE AC BUSES NOT AT HIGH LOADS. SO THE PROPOSED SOLUTION WAS SENT UP TO THE SPACECRAFT THAT THE O2 FANS ON TANK NUMBER 2 BE TURNED ON AND AT THE SAME TIME THE O2 FANS ON TANK NUMBER 1 BE IN THE OFF POSITION. AND IF SOLUTION IS CORRECT, THE AC BUSES WOULD STAY ON THE LINE. THEN THEY WOULD PROPOSE TO PERIODICALLY SWITCH THE O2 FANS, TANK NUMBER 1 TO ON, AND THE O2 FANS, TANK NUMBER 2, TO OFF. IN THIS WAY, ONE AC BUSS WOULD BE PROTECTED AT ALL TIMES FROM OVERVOLTAGE CONDITIONS. ON THE TEXAS PASS WE JUST HAD, AT 68 HOURS 34 MINUTES, REVOLUTION 43, CAPCOM POGUE AGAIN CONTACTED THE SPACECRAFT AND ASKED FOR A CONFIRMATION OF THE O2 FANS ON TANK NUMBER 2 WERE ON AND THE O2 FANS ON TANK NUMBER 1 WERE OFF. ASTRONAUT EISELE GAVE HIM THAT CONFIRMATION AND INDICATED THAT SCHIRRA WAS STILL ASLEEP. AT THAT TIME, ASTRONAUT POGUE RELAYED FROM FLIGHT DIRECTOR JERRY GRIFFIN THAT THEY HAD A GO FOR 62 DASH 1, WHICH MEANS THAT THEY HAVE A GO CONDITION FOR 61 ORBITS. WE ARE PRESENTLY CROSSING AFRICA, WE WILL COME UP ON CAR-NARVON AT 6925 INTO THE MISSION. THE COMMANDER AND LM PILOT, SCHIRRA AND CUNNINGHAM, SHOULD BE AWAKE AT THIS TIME. THEY WILL ALL GO INTO AN EAT PERIOD AND WE WILL START A NEW DAY AT 69 HOURS 10 MINUTES INTO THE MISSION OF APOLLO 7, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 692630 (CDT 7:32 A) 240/1

PAO THIS IS APOLLO CONTROL, HOUSTON, AT 69 HOURS 26 MINUTES INTO THE FLIGHT. AND THROUGH CARNARVON THIS MORNING JACK SWIGERT JUST ESTABLISHED CONTACT WITH A RATHER SLEEPY SOUNDING WALT CUNNINGHAM. HERE IS HOW THAT CONVERSATION IS GOING.

CAPCOM APOLLO 7, HOUSTON, THROUGH CARNARVON.
SC ROGER, HOUSTON. GOOD MORNING JACK.
CAPCOM GOOD MORNING, WALT. HOW ARE YOU THIS MORNING?

SC FINE.
CAPCOM WE'LL BE STANDING BY.
SC HEY JACK; I HAVE A QUESTION ON OUR LOW QUAD, WHAT QUAD; YESTERDAY IT WAS READING 47 PERCENT AND WE WOULD LIKE THAT (GARBLE) PRESSURE AROUND THE 3 PERCENT LEVEL AND SWITCH TO SECONDARY PROPELLANTS AND END THE LOOP AT 43; OVER.

CAPCOM OKAY, STAND BY; I'LL GET YOU THE NP ON THAT HERE. APOLLO 7, HOUSTON.

SC GO AHEAD HOUSTON.
CAPCOM WALT, YOU ARE ABOUT 25 POUNDS AWAY FROM THE POINT AT WHICH YOU SHOULD SWITCH, WHICH IS ABOUT 6 PERCENT SO YOU ARE QUITE A WAYS AWAY SO THERE IS NO NEED TO HURRY ON THAT NOW AND WE'LL GIVE YOU, WHEN YOU START GETTING CLOSE, A GAGE READING OF WHICH YOU SHOULD SWITCH.

SC ROGER, AND WILL WE SWITCH QUAD BY QUAD?
CAPCOM AFFIRMATIVE. QUAD BY QUAD.

SC OKAY, (GARBLE)
CAPCOM SAY AGAIN.

SC -
CAPCOM OH, A MAP UPDATE? STAND BY.
APOLLO 7, HOUSTON. WE'LL BE TALKING TO YOU, WE'LL PICK UP HSK IN ABOUT 4 MINUTES; WE'D LIKE YOU TO TURN UP YOUR S BAND.

SC ROGER.
CAPCOM AND I HAVE YOUR MAP UPDATE WALT.

SC GO.
CAPCOM THIS IS FOR REV 43. THE GET IS AT 68 PLUS 29 PLUS 00. LONGITUDE OF THE NODE 112.7 DEGREES WEST, RIGHT ASCENSION OF 05 PLUS 33.

SC ROGER. ROGER.
CAPCOM APOLLO 7, HOUSTON THROUGH HONEYSUCKLE.

APOLLO 7, HOUSTON THROUGH HONEYSUCKLE.
SC ROGER; THIS IS APOLLO 7, CAN YOU READ?

CAPCOM I READ YOU FINE NOW. WE NEED TO SWITCH THE BIOMED SWITCH TO CDR.

SC ROGER. WON'T DO ANY GOOD; HE'S NOT PLUGGED UP.

CAPCOM OKAY, WHEN HE GETS PLUGGED UP, WOULD YOU DO IT?

SC OKAY, AND I GOT A HIGH PITCHED SQUEAL ON

APOLLO 7 COMMENTARY, 10/14/68, GET: 692630 (CDT: 7:32 A) 240/2

S BAND; HOW ABOUT YOU?

CAPCOM ROGER WALT. WE'VE COMMANDED BACKUP VOICE THERE BECAUSE WE'VE LOST THE PM AND WE'RE GOING ON FM NOW. WE GOT THE VOICE ON THE SM.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 693630 (CDI 07:42AM) 241/1

CAPCOM ROGER, WALT. WE ARE - WE'VE COMMANDED
BECAUSE WE'VE LOST PM AND WE ARE GOING ON FM NOW. WE'VE
GOT THE VOICE ON THE FM SUBCARRIER.

SC OKAY. WHAT'S THE STATUS ON OUR TAPE
RECORDER?

CAPCOM STAND BY.

CAPCOM APOLLO 7, HOUSTON.

CAPCOM APOLLO 7, HOUSTON.

SC APOLLO 7 HERE.

CAPCOM ROGER. WALT, WHEN YOU WANT TO USE
THE TAPE RECORDER, GO TO LOW BIT RATE AND RECORD. WHEN YOU
ARE READY, WHEN YOU ARE THROUGH RECORDING AND WANT US TO
DUMP IT, LET US KNOW AND WE WILL INTERRUPT REAL TIME DATA
AND DUMP IT.

SC IS THIS A CHANGE FOR OUR NORMAL OPER-
ATING PROCEDURES FOR THE FLIGHT? I AM NOT READING YOU ANY
MORE.

CAPCOM OKAY. WALT, WHAT WE HAVE LOST IS THE
PM DOWNLINK. WE ARE ON THE FM DOWNLINK NOW, WHICH MEANS
WE ARE TIME-SHARING DSE WITH REAL TIME DOWNLINK.

SC ROGER. HAVE WE LOST THAT PERMANENTLY?

CAPCOM IS HASN'T BEEN DETERMINED YET. WE
ARE GOING TO DO A LITTLE BIT OF CHECKING HERE.

SC OKAY. WELL, I'LL TAKE THE TAPE RE-
CORDER BACK AND - ON 59 HOURS AND 39 MINUTES.

CAPCOM OKAY.

SC YOU ARE STILL GOING TO KEEP THE BOOK-
KEEPING ON IT?

CAPCOM OKAY.

CAPCOM APOLLO 7, HOUSTON. LOS HONEYSUCKLE,
PICK YOU UP AT GUAYMAS.

PAO THIS IS APOLLO CONTROL HOUSTON. WE
HAVE FINALLY LOST CONTACT VIA CARNARVON STATION. WE ARE
69 HOURS 42 MINUTES IN THE FLIGHT. THE WEATHERMAN HAS SENT
US HIS HAPPY REPORT THIS MORNING AND IT GOES LIKE THIS.
IN THE WESTERN ATLANTIC AREAS, THE WEATHER WILL BE PARTLY
CLOUDY, WINDS WILL BE EASTERLY 10 TO 15 KNOTS, SEAS ABOUT
4 FEET, TEMPERATURES IN THE HIGH 70'S. IN THE EAST ATLANTIC,
MOSTLY CLEAR TO PARTLY CLOUDY SKIES, EASTERLY WINDS 12 TO
15 KNOTS, SEAS 4 FEET, TEMPERATURE IN THE MID-70'S. IN THE
WESTERN PACIFIC AREAS WHERE APOLLO MIGHT LAND IF IT HAD TO,
EASTERLY WINDS 12 TO 15 KNOTS, SEAS 4 TO 5 FEET, AND THE
TEMPERATURE IS RANGING FROM THE LOW 70'S IN THE NORTH TO
THE LOW 80'S IN THE SOUTHERNMOST LANDING AREAS. IN THE
NORTHERN PART OF MID-PACIFIC LANDING ZONE, WEATHER IS MOSTLY
CLOUDY WITH SCATTERED SHOWERS, WINDS ARE EASTERLY 15 TO 18
KNOTS AND WITH SEAS AN AVERAGE OF 6 FEET. THE TEMPERATURES
ARE IN THE MID-70'S AND THE SOUTHERN PARTS OF THE SAME ZONES

APOLLO 7 COMMENTARY, 10/14/68, GET: 693630 (CDT 0742AM) 241/2

PAO THE WEATHER IS PARTLY CLOUDY WITH
SOUTHERLY WINDS OF 15 KNOTS AND 5 FOOT SEAS. THE SPACECRAFT
CREW WILL PERHAPS HAVE THE OPPORTUNITY TO SEE A TROPICAL
DEVELOPING IN THE CARRIBEAN TODAY, THAT IS OUT IN THE AREA
OF THE WINDWARD ISLANDS. AT 69 HOURS AND 44 MINUTES INTO
THE FLIGHT, THIS IS APOLLO CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 700625 (CDT 8:12A) 242/1

PAO APOLLO CONTROL HOUSTON HERE 70 HOURS
6 MINUTES INTO THE FLIGHT AND WE ARE TALKING TO THE CREW
THROUGH GUAYMAS. HERE'S HOW IT IS GOING.
CAPCOM APOLLO 7, HOUSTON, THROUGH GUAYMAS.
SC APOLLO 7 READING 5 BY 5.
CAPCOM ROGER 5 BY. WALT, WE WANT TO DELETE
THESE COM TESTS THAT WE WERE GOING TO DO OVER THIS STATESIDE
PASS HERE, OR OVER CANARIES.
SC ROGER, UNDERSTAND.
SC HOUSTON, THIS IS APOLLO 7.
CAPCOM GO AHEAD 7.
SC ROGER, WE HAVE A (GARBLED) PROBLEM.
WE ARE UNABLE TO GET A (GARBLED)
SC AND AS A RESULT OF THIS WE ARE NOT
ALIGNED AT THIS POINT AND POSSIBLY WILL NOT BE ABLE TO SUPPORT
THE WSMR TEST. (GARBLED)
CAPCOM IF I COPY YOU, WALLY, UNDERSTAND YOU
HAVE HAD A PROBLEM IN ALIGNING THE PLATFORM AND YOU MAY NOT
BE ABLE TO SUPPORT THE WSMR TEST, IS THAT CHARLIE?
SC THAT IS CHARLIE. THE PROBLEM APPARENTLY
IS THE MARK BUTTON.
CAPCOM A PROBLEM WITH THE MARK BUTTON, ROGER,
UNDERSTAND.
SC YES, WE HAD (GARBLED) JACK, IT WAS
ATTEMPTED IN THE P51, AND STEP 4 WE HAVE A FLASHING 51 AND
CALLING FOR A MARK, WE PUSHED THE MARK BUTTON REPEATEDLY
AND IT WILL NOT GO ON TO THE NEXT DISPLAY. APPARENTLY IT'S
NOT ACCEPTING THE MARK, OR ELSE THE MARK BUTTON IS FILLED,
I'M NOT SURE WHICH. I DID CHECK - I DID CHECK A BIT IN
FLAGWOOD 74, THE L53 FLAG, AND THAT WAS SET WHEN THE 51
WAS FLASHING. I ALSO DID A CNC SALES CHECK AND THAT TURNED
OUT OKAY AND WE DID A HALTING 53, BY THAT I MEAN WE JUST
RAN THROUGH THE PROGRAM WITHOUT ACTUALLY MANEUVERING. IT
SEEMED TO WORK FINE. WE DID PUNCH THE ENTER BUTTON, BUT
THE COMPUTER PROGRESSED THROUGH THE PROGRAM.
CAPCOM OKAY, ROGER APOLLO 7. LOOKS LIKE WE'RE
READING YOUR DISKY NOW. YOU'RE STILL ON PROGRAM 51 WITH
NOUN 70?
SC NEGATIVE. WE'VE GOT 2 IN THERE RIGHT
NOW. DO YOU WANT ME TO CALL IT BACK UP?
CAPCOM OKAY, YES, I GUESS WE MISSED A LOCK
ON DATA.
SC OKAY.
CAPCOM ROGER, UNDERSTAND, COPY THAT YOU HAD
A FAILED PRE MOD PROCESSOR AND YOU'RE GOING TO RUN THE
REST OF THE FLIGHT IN AUXILIARY.
SC NEGATIVE. WE ARE -
CAPCOM WALT, WE'RE WORKING ON A TROUBLE SHOOTING
PROCEDURE ON THIS. I'M SORRY I MISSED PART OF YOUR TRANSMISSION.

APOLLO 7 COMMENTARY, 10/14/68, GET: 700625 (CDT 8:12A) 242/2

CAPCOM WE'LL BE TROUBLE SHOOTING THIS AND WE
WILL GET YOU A READING ON IT SHORTLY.

SC HEY JACK -

CAPCOM JUST A MINUTE WALT.

CAPCOM APOLLO 7, HOUSTON.

SC GO HOUSTON.

CAPCOM ROGER. WALT WE HAD A PROBLEM LAST NIGHT
WITH THE NORMAL PM WHERE WE LOST VOICE AND TELEMETRY SUB
CARRIER OF THE NORMAL PM AND WE'RE DEVISING A TROUBLE SHOOTING
PROCEDURE NOW. WE'D LIKE FOR YOU TO STAY IN THIS PRESENT
CONFIGURATION UNTIL WE'VE GOTTEN THAT PROCEDURE UP TO YOU.
YOU CAN USE THE TAPE RECORDER AS YOU WANT AS LONG AS YOU
ARE IN LOW BIT RATE.

SC OKAY. I PICKED UP THE TAPE RECORDER
WHEN IT WAS ALREADY PLAYED OUT. I REWOUND IT, IT'S STANDING
BY FOR A DUMP NOW IN CASE HE HAS SOMETHING ON IT. DO YOU
WANT A DUMP?

CAPCOM WALT, DID YOU HAVE VERY MUCH OF A VOICE
TRANSCRIPTION ON THAT TAPE RECORDER?

SC I DON'T KNOW, THE WHOLE TAPE HAS BEEN
RECORDED, SO IT'S GOING TO TAKE YOU ABOUT 8 MINUTES FOR A
COMPLETE DUMP.

CAPCOM OKAY, STANDBY.

CAPCOM APOLLO 7, HOUSTON.

SC ROGER GO.

CAPCOM ON THE TAPE RECORDER, THERE'S NOTHING
THERE THAT WE FEEL WE'D LIKE TO DUMP IT FOR UNLESS YOU HAVE
MADE SOME VOICE TRANSMISSION IN THERE THAT WE DON'T KNOW
ABOUT.

SC THE ONLY THING WE MIGHT LOSE THAT I CAN
THINK OF WOULD BE SOME OF THIS FILM LOG AND I THINK WE CAN
COVER THAT ANOTHER WAY.

CAPCOM OKAY, WE WON'T DUMP IT THEN.

SC OKAY, WE'LL GO AHEAD AND ONLY DATA RUN
WHEN WE WANT TO RECORD SOMETHING. THAT WAY WE WILL LIMIT
THE AMOUNT OF TIME WE TIED UP FOR DUMPING.

CAPCOM ROGER.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 10:16:25 (CDT 02:22 AM) 243/1

CAPCOM APOLLO 7, HOUSTON.
CAPCOM APOLLO 7, HOUSTON.
CAPCOM APOLLO 7, HOUSTON.
CAPCOM APOLLO 7, HOUSTON.
CAPCOM APOLLO 7, HOUSTON.
CAPCOM APOLLO 7, HOUSTON.
CAPCOM APOLLO 7, HOUSTON.
CAPCOM APOLLO 7, HOUSTON.
SC ROGER, HOUSTON, APOLLO 7. HOW DO YOU
READ? OVER.
CAPCOM I READ YOU FINE. WE'VE GOT A FEW
THINGS TO TRY, DONN, TO CHECK THE MARK BUTTON.
SC WHAT DID YOU SAY AGAIN, JACK?
CAPCOM WE HAVE SOMETHING WE WOULD LIKE YOU
TO DO TO VERIFY THE OPERATION OF THE MARK BUTTON. WHILE
IN PROGRAM 00, WE WOULD LIKE TO HAVE YOU PRESS THE MARK
BUTTON AND VERIFY WHETHER YOU GET A PROGRAM ALARM.
SC OKAY, HERE GOES. I DO NOT GET A PRO-
GRAM ALARM.
CAPCOM OKAY. IF YOU DON'T GET A PROGRAM
ALARM NOW, PRESS THE MARK REJECT BUTTON WHILE IN PU THERE,
AND SEE WHETHER YOU GET A PROGRAM ALARM.
SC ROGER, PRESSING MARK REJECT, I GET
NO PROGRAM ALARM.
CAPCOM ROGER, COPY THAT. DURING THIS NEXT
NIGHT PASS, WE WOULD LIKE YOU TO TRY P51 AGAIN. IF YOU
DON'T GET ANY RESPONSE FROM THE MARK BUTTON, THEN TRY P53
AND P54.
SC JACK, DO YOU HAVE ANY (GARBLE)
CAPCOM ROGER, COPY.
SC ROGER. (GARBLE) GOT THOSE UPDATES
ON OUR FULL STATUS. THIS IS THE REASON I'M CONCERNED ABOUT
IT AND I SURE DO (GARBLE) TV (GARBLE) PROBLEM.
CAPCOM OKAY, WALLY, STAND BY, WE ARE GOING
TO DISCUSS THAT END.
SC OKAY. REALIZE THAT YOUR NEW 53 IS
(GARBLE) AND USE THE (GARBLE) FOR BURNS.
CAPCOM ROGER, WE UNDERSTAND.
SC PRETTY BUSY GETTING SET UP HERE.
GUESS YOU WANT TO WATCH OUR (GARBLE) TV.
CAPCOM OKAY, WE WILL DISCUSS THAT WALLY.
WE WILL BE BACK TO YOU. IN THE MEAN TIME WALT, WE WOULD
LIKE TO HAVE YOU READ OFF THE POSITIONS OF YOUR S-BAND
NORMAL AND S-BAND OFF SWITCHES HERE SO WE COULD START THE
TROUBLESHOOTING PROCEDURE ON THIS PM.
SC S-BAND NORMAL SWITCHES ARE IN VOICE,
PCM AND RANGING, S-BAND OFF IS STILL IN TAPE AND I GUESS
I MAY AS WELL TURN THE TAPE SWITCH OFF. I STILL HAVE POWER

APOLLO 7 COMMENTARY, 10/14/68, GET: 701625 (CDT 08:22A) 243/2.

SC SWITCHES, SCE NORMAL PMP ON OFF, OVER.
CAPCOM ROGER, WE COPY.
END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 702625 (CDT: 8:32A) 244/1

SC POWERS WHICH IS THE SEE MODE
ON OFF; OVER.
CAPCOM ROGER; WE COPY. WHAT ARE THE POSITIONS
OF YOUR TRANSPONDERS WALT?
SC SECONDARY OF THE TRANSPONDER AND POWER
UP ABOVE IN HIGH.
CAPCOM OKAY, COPY. WE'LL BE BACK -
SC (GARBLE)
CAPCOM GO AHEAD.
SC OVER A PLACE NOW; WHY DON'T I TURN THE
FAN OFF AND TAPE SWITCH ON?
CAPCOM WE'D RATHER HAVE YOU JUST LEAVE IT ON
WALT.
SC OKAY.
CAPCOM APOLLO 7, HOUSTON.
SC ROGER HOUSTON. GO.
CAPCOM OKAY, IF WE CAN'T GET THROUGH THE P51
AND 52 USING THE MARK BUTTON, GO AHEAD AND USE THE COAS AND
GET 53 AND 54 FOR THE IMU ALIGNMENT.
SC ROGER TOM. MY CONCERN IS; ARE YOU
WILLING TO EXPEND THE SERVICE MODULE FUEL FOR THE (GARBLE)
TRANSPONDER TEST? OR ARE YOU ASKING ME TO BE WILLING TO?
CAPCOM WELL, THE WHOLE THING WALLY; WE WANT
TO GET THE PLATFORM ALIGNED FIRST AND SEE WHAT WE'VE GOT.
WE'LL TALK ABOUT THE REST OF IT DOWN THE LINE OVER CARNARVON.
SC I THINK WE'VE GOT A PROBLEM AND I GO
ALONG WITH JUST THE (GARBLE) ALIGNMENT, TRUE.
CAPCOM WE'LL TRY THE COAS ONE TIME; IT'S WORTH
IT ONE TIME IN CASE THAT WE CAN'T GET THE OPTICS GOING.
SC THAT'S IT.
CAPCOM ALL RIGHT.
SC WILL YOU GIVE US A TOTAL NUMBER OF POUNDS
OF RCS PROPELLANTS REMAINING; I CAN PUT IT IN MY (GARBLE)
CAPCOM YES, OKAY, WALT. WE'RE GOING TO GIVE
YOU THIS OVER CARNARVON.
SC STANDING BY.
CAPCOM ROGER. APOLLO 7, HOUSTON. YOUR TOTAL
USABLE RCS FUEL NOW IS 750 POUNDS.
SC THAT IS 750 POUNDS GOES ON MY CHART AT
70 HOURS INTO THE FLIGHT. I WANT TOTAL NUMBER OF FUEL BE-
CAUSE I THINK, AT THIS NIGHTSIDE HERE, THE UNUSABLE IS AL-
READY TAKEN OFF THE BOTTOM.
CAPCOM OKAY. NOW THE 750 IS USABLE.
SC WELL, WOULD YOU TAKE A LOOK AT YOUR
COPY OF MY ONBOARD CHART AND GIVE ME A NUMBER THAT I CAN
STICK ON THAT?
CAPCOM OKAY WALT. WE'LL PASS THAT OVER TO YOU
OVER TANANARIVE; WE'RE ABOUT TO LOSE YOU HERE. TANANARIVE
AT 13 MINUTES.
SC OKAY.

APOLLO 7 COMMENTARY, 10/14/68, GET: 702625 (CDT: 8:32A) 244/2

PAO THIS IS APOLLO CONTROL HOUSTON, 70 HOURS, 33 MINUTES INTO THE FLIGHT. AND WE HAVE LOST CONTACT BY THE CANARY STATION, AND WE WILL PICK UP AGAIN AT TANANARIVE AND CONCLUDE THAT CONVERSATION ABOUT ONBOARD USABLE. THE PRECISE GAGING HERE, OTHER AFFECTS ARE BEING FIGURED IN HERE; YOU HEARD THE FLIGHT DIRECTOR TELL THE CAPCOM TO GIVE HIM 750 POUNDS WHICH NUMBER WAS PASSED UP. NOW IN ADDITION TO THAT THERE IS A GAGING FACTOR, CERTAIN OTHER ALLOWANCES AND THE PRECISE OVERAGE ESTIMATE IS ALSO BEING CALCULATED NOW. IN THE COURSE OF THAT ON, YOU HEARD A TROUBLE SHOOTING PROCEDURE REAL TIME WHEREIN DON EISELE WAS ASKED TO PUSH THE MARK BUTTON ON SOME OF HIS EQUIPMENT RELATED TO THE GUIDANCE AND NAVIGATION SYSTEM. THIS GEAR IS DOWN IN THE LOWER EQUIPMENT BAY AND THE MARK BUTTON EFFECTIVELY HAS THE CAPABILITY OF PUTTING INTO THE COMPUTER CERTAIN ANGLES AND OTHER MATHEMATICAL INFORMATION ABOUT A GIVEN STAR WHEN IT'S PROPERLY SIGHTED THROUGH THE GNN OPTICS. IN OTHER WORDS, THE PILOTS LOOK AT A STAR WHEN THEY ARE SATISFIED THEY HAVE THE RIGHT STAR IN THE WINDOW, THEY PRESS THE MARK BUTTON AND THE INFORMATION REGARDING ANGLE AND SUCH IS AUTOMATICALLY TRANSFERRED TO THE COMPUTER. THIS FUNCTION APPARENTLY IS NOT TAKING PLACE. THE SECOND STEP IN THE TROUBLE SHOOTING PROCEDURE WAS TO HIT THE MARK REJECT BUTTON, BOTH OF WHICH SHOULD HAVE PRODUCED A WARNING BUZZER, BUT APPARENTLY NEITHER WORKED. OTHER DEVICES CAN BE USED OF COURSE TO GET THIS INFORMATION. THE CABIN TEMP THIS MORNING IS 69 DEGREES. AND AT 70 HOURS AND 35 MINUTES INTO THE FLIGHT, THIS IS APOLLO CONTROL, HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 704610 (CDT 8:52A) 245/1

PAO APOLLO CONTROL HOUSTON HERE AT 70 HOURS
46 MINUTES INTO THE FLIGHT. WE ARE IN TOUCH WITH APOLLO 7
THROUGH TANANARIVE AND HERE'S HOW THAT'S GOING.
CAPCOM APOLLO 7 HOUSTON.
SC GO AHEAD HOUSTON.
CAPCOM ROGER. WALT, THE READING THAT YOU SHOULD
BE HAVING ON YOUR CHART FOR RCS FUEL IS 808 POUNDS.
SC ROGER 808 TEMPERATURE SUPPOSED TO BE
750 AND GAINING,
CAPCOM ROGER.
CAPCOM APOLLO 7 HOUSTON
SC GO AHEAD.
CAPCOM OKAY, I WANT TO CHECK OUT THE ALINEMENTS
GOING OUT. WE'VE ALREADY WORKED OUT WITH STEVE HERE A REAL
SLICK REAL COOL WAY OF DOING 53 AND 54 USING THOSE OPTICS
DOWN BELOW THAT SHOULD COST US VERY LITTLE FUEL. AND BE
ABOUT AS ACCURATE AS 51 AND 52.
SC VERY GOOD. WE'VE DONE AN ALINEMENT.
LET ME READOUT TO YOU.
CAPCOM OKAY, DONN, HAVE YOU GOT YOUR BOOK OUT
FOR P53?
SC STANDBY ONE.
SC OKAY GO.
CAPCOM OKAY, ON P53 YOU'LL ENTER 53 IN STEP 1
AND STEP 2. WHEN YOU ACQUIRE THE TWO STARS WE WILL USE
THE SEXTANT AND TELESCOPE DOWN BELOW, AND WHEN YOU GET IT
IN THE SEXTANT YOU WILL NOTE THE SHAFT AND TRUNION ANGLES
THAT YOU HAVE THERE. YOU WILL HAVE TO CALL VERB 16, NOUN 91.
GO BACK AND ENTER ABOVE AS VERB 06 NOUN 92 IN STEP 3. YOU
CAN PROCEED AND THEN YOU'LL HOLD ATTITUDE AT ENTER. IF
THE ATTITUDE HOLD IS BROUGHT ON IT SHOULD BE ABOUT AS
ACCURATE AS WE HAD BEFORE. OVER.
SC OKAY (GARBLED)
CAPCOM OKAY
SC ROGER TOM. HOW MUCH MORE TIME THIS
PASS?
CAPCOM WE'VE GOT ABOUT 2 MORE MINUTES.
SC OKAY. DO YOU WANT TO GO THROUGH AND
READ THAT ONE AGAIN?
CAPCOM WE'VE GOT 4 MINUTES. DO YOU WANT ME
TO READ IT OVER?
SC GARBLED.
CAPCOM APOLLO 7, SAY AGAIN.
SC YES, TOM, WILL YOU GO THROUGH THAT
AGAIN A LITTLE BIT SLOWER. I WAS A LITTLE BIT BEHIND IN
COPYING DOWN THE PROCEDURES. I'M READY TO GO AGAIN.
CAPCOM OKAY. WE GO THROUGH STEP 1 AND STEP 2
OF P53, AND YOU CAN USE THE COURSE ALINE OPTION IF YOU WANT

APOLLO 7 COMMENTARY, 10/14/68, GET: 704610 (CDT 8:52A) 245/1

PAO APOLLO CONTROL HOUSTON HERE AT 70 HOURS
46 MINUTES INTO THE FLIGHT. WE ARE IN TOUCH WITH APOLLO 7
THROUGH TANANARIVE AND HERE'S HOW THAT'S GOING.
CAPCOM APOLLO 7 HOUSTON.
SC GO AHEAD HOUSTON.
CAPCOM ROGER. WALT, THE READING THAT YOU SHOULD
BE HAVING ON YOUR CHART FOR RCS FUEL IS 808 POUNDS.
SC ROGER 808 TEMPERATURE SUPPOSED TO BE
750 AND GAINING,
CAPCOM ROGER.
CAPCOM APOLLO 7 HOUSTON
SC GO AHEAD.
CAPCOM OKAY, I WANT TO CHECK OUT THE ALINEMENTS
GOING OUT. WE'VE ALREADY WORKED OUT WITH STEVE HERE A REAL
SLICK REAL COOL WAY OF DOING 53 AND 54 USING THOSE OPTICS
DOWN BELOW THAT SHOULD COST US VERY LITTLE FUEL. AND BE
ABOUT AS ACCURATE AS 51 AND 52.
SC VERY GOOD. WE'VE DONE AN ALINEMENT.
LET ME READOUT TO YOU.
CAPCOM OKAY, DONN, HAVE YOU GOT YOUR BOOK OUT
FOR P53?
SC STANDBY ONE.
SC OKAY GO.
CAPCOM OKAY, ON P53 YOU'LL ENTER 53 IN STEP 1
AND STEP 2. WHEN YOU ACQUIRE THE TWO STARS WE WILL USE
THE SEXTANT AND TELESCOPE DOWN BELOW, AND WHEN YOU GET IT
IN THE SEXTANT YOU WILL NOTE THE SHAFT AND TRUNION ANGLES
THAT YOU HAVE THERE. YOU WILL HAVE TO CALL VERB 16, NOUN 91.
GO BACK AND ENTER ABOVE AS VERB 06 NOUN 92 IN STEP 3. YOU
CAN PROCEED AND THEN YOU'LL HOLD ATTITUDE AT ENTER. IF
THE ATTITUDE HOLD IS BROUGHT ON IT SHOULD BE ABOUT AS
ACCURATE AS WE HAD BEFORE. OVER.
SC OKAY (GARBLED)
CAPCOM OKAY
SC ROGER TOM. HOW MUCH MORE TIME THIS
PASS?
CAPCOM WE'VE GOT ABOUT 2 MORE MINUTES.
SC OKAY. DO YOU WANT TO GO THROUGH AND
READ THAT ONE AGAIN?
CAPCOM WE'VE GOT 4 MINUTES. DO YOU WANT ME
TO READ IT OVER?
SC GARBLED.
CAPCOM APOLLO 7, SAY AGAIN.
SC YES, TOM, WILL YOU GO THROUGH THAT
AGAIN A LITTLE BIT SLOWER. I WAS A LITTLE BIT BEHIND IN
COPYING DOWN THE PROCEDURES. I'M READY TO GO AGAIN.
CAPCOM OKAY. WE GO THROUGH STEP 1 AND STEP 2
OF P53, AND YOU CAN USE THE COURSE ALINE OPTION IF YOU WANT

APOLLO 7 COMMENTARY, 10/14/68, GET: 704610 (CDT 8:52A) 245/2

CAPCOM
THE TELESCOPE.

TO. BUT WE ACQUIRE THE STARS WITHIN

SC

ROGER.

CAPCOM
TELESCOPE THEN GO AHEAD AND GET IT INTO THE SEXTANT.

OKAY. ONCE WE GET THE NAV STAR IN THE

SC

OKAY. I RECEIVE (GARBLED)

CAPCOM
THEN YOU CAN HIT VERB 16 NOUN 91 TO READ THE SHAFT AND TRUNION
OF THAT STAR.

OKAY. WHEN YOU GET IT INTO THE SEXTANT

SC

ROGER.

CAPCOM
STEP 3, YOU SEE FLASHING VERB 06 NOUN 92 YOU CAN ENTER NOW
92 WHICH IS THE VALUE YOU HAVE READ OUT.

OKAY, WITH THAT VALUE YOU GO BACK IN

SC

ROGER.

CAPCOM

THEN PROCEED.

SC

PROCEED.

CAPCOM
YOUR MARK.

THEN YOU CAN USE THE ENTER BUTTON FOR

PAO

THIS IS APOLLO CONTROL HOUSTON AT 70
HOURS 52 MINUTES INTO THE FLIGHT THROUGH TANANARIVE THROUGH
WHICH WE LOST CONTACT. ABOUT A MINUTE AGO YOU HEARD TOM
STAFFORD GIVE APOLLO 7 AN ALTERNATE WAY OF GETTING THE SHAFT
AND TRUNION, THE TWO ANGLES REQUIRED TO DO A NAVIGATIONAL
PLOTTING ON A STAR - HE GAVE THEM AN ALTERNATE WAY TO GET
THAT INFORMATION INTO THE ONBOARD COMPUTER. EARLIER WE HAD
ESTABLISHED THAT THE MARK BUTTON, OR THE MARK DEVICE THROUGH
WHICH THAT INFORMATION IS NORMALLY INSERTED INTO THE COMPUTER
IS - WE ESTABLISHED THAT IT IS INOPERATIVE. WE ARE NOW GOING
THROUGH THE DATA INSERTION KEYBOARD, WHICH ON CHECKING WE
DISCOVER IS ANOTHER WAY TO PUT THAT INFORMATION IN. AT
70 HOURS 53 MINUTES INTO THE FLIGHT THIS IS APOLLO CONTROL
IN HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 711705 (CDT 09:22A) 246/1

PAO THIS IS APOLLO CONTROL HOUSTON 71 HOURS
17 MINUTES INTO THE FLIGHT. OVER CARNARVON A FEW MINUTES
AGO, WE HAD SOME CONVERSATION. WE - THE CREW WAS QUITE
BUSY DOING STAR ALIGNMENT AND GETTING OUR ATTITUDES SET UP
FOR THE NEXT PASS ACROSS THE STATES. THEY - THE TRANSPONDER,
THE RADAR TRANSPONDER TEST OUT OF WHITE SANDS, THEY ARE TO
BE BLUNT END FORWARD, SINCE THE 00 ATTITUDES, THAT IS ALIGNED
STRAIGHT UPRIGHT, BLUNT END LEADING, AS THEY COME ACROSS
THE WHITE SANDS MISSILE RANGE NEAR LOS CRUCES, NEW MEXICO.
AND PRECISELY ONE ALIGNMENT THEY WILL HAVE, I THINK THEY
WILL SIMPLY GO AMISS, THE FLIGHT PLAN SHOWS THEY GO INTO
FREE DRIFT AFTER THE WHITE SANDS PASS. WE PLANNED TO TELL
THEM, AS THEY STARTED ACROSS THE STATES, TOM STAFFORD CALLED
SEVERAL TIMES AND THEY WERE BUSY AND DIDN'T GET THE WORD
VIA THE HONEYSUCKLE STATION IN EAST AUSTRALIA, BUT WE DO
WANT TO TELL THEM THAT WE ARE PLANNING A MINOR BURN LATER
TODAY TO ADJUST THEIR APOGEE AND TO MAKE OUR TOTAL ONBOARD
FUEL REDLINES A LITTLE MORE ACCEPTABLE ALL THE WAY AROUND.
THEY ARE NOT OUT OF ALIGNMENT WITH THE OVERALL PROGRAM AS
PLANNED BUT THE AFFECT OF AN ADJUSTING BURN WOULD BE TO
LOWER APOGEE SOMEWHAT AND TO BRING THOSE REDLINE VALUES
EVEN INTO MORE CONSERVATION VIEWS. HERE IS THE TAPE BY
CARNARVON.

CAPCOM APOLLO 7, HOUSTON.
SC GO AHEAD, HOUSTON.
CAPCOM ROGER, APOLLO 7. HOW IS THE ALIGNMENT
COMING?
SC WE ARE STILL STAR READING RIGHT NOW.
CAPCOM OKAY, UNDERSTAND YOU ARE STILL IN
PROGRAM 53.
SC WE ARE JUST TRYING TO ACQUIRE STAR
REPORT TIME.
CAPCOM OKAY.
CAPCOM APOLLO 7, HOUSTON. I'LL GO AHEAD
AND BRIEF YOU ON WHAT WE'VE GOT PLANNED.
SC WAIT, LET'S PUT DOWN WHAT (GARBLE)
CAP YES, YES OKAY, I'LL JUST STAND BY
HERE.
SC OKAY, I WOULD LIKE TO (GARBLE)
CAPCOM ALL RIGHT.
SC HOUSTON, APOLLO 7.
CAPCOM GO AHEAD, WALLY.
SC OKAY (GARBLE)
CAPCOM THAT WAS TOO FAST. SAY AGAIN.
SC DONN IS IN THE (GARBLE) RIGHT NOW,
BUT IS IT NECESSARY FOR HIM OR COULD I TAKE IT?
CAPCOM NO, IT'S FOR THE WHOLE CREW AND THE
MAIN THING IS TO GET THE PLATFORM ALIGNED AND WALLY, IF YOU

APOLLO 7 COMMENTARY, 10/14/68, GET: 711705 (CDT 09:22A) 246/2

CAPCOM WOULD TURN UP THE S-BAND AT 710845
WE WILL TALK TO YOU THROUGH HONEYSUCKLE.
SC VERY GOOD. WE DID NEED THE ARM TO
CURVE ON THIS TV CAMERA, WE ARE TRYING TO GET IT OUT NOW.
CAPCOM OKAY, WE WANT TO SEE HOW THE PLATFORM
ALIGNMENT COMES OUT AND WE WILL TALK TO YOU OVER HONEYSUCKLE.
SC OKAY. I'VE GOT (GARBLE)
CAPCOM OKAY.
CAPCOM APOLLO 7, HOUSTON.
SC ROGER HOUSTON.
CAPCOM OKAY, RIGHT NOW WHEN DONN IS READING
THE NOUN 91, IS HE READING - IS HE GOING TO MONITOR REAL
TIME WITH VERB 16 OR VERB 06?
SC I AM USING 16, TOM, AND I AM MEANING
TO FREEZE IT WHEN I GET RIGHT ON IT.
CAPCOM OKAY, THAT SOUNDS GOOD, DONN. SOUNDS
REAL GOOD.
CAPCOM APOLLO 7, THIS IS HOUSTON THROUGH
HONEYSUCKLE. HOW DO YOU READ?
CAPCOM APOLLO 7, THIS HOUSTON THROUGH HONEY-
SUCKLE.
CAPCOM HELLO, APOLLO 7, THIS HOUSTON THROUGH
HONEYSUCKLE, HOW DO YOU READ WALLY?
CAPCOM HELLO, APOLLO 7, THIS IS HOUSTON, HOW
DO YOU READ?
CAPCOM HELLO, APOLLO 7, HOUSTON, OVER.
CAPCOM APOLLO 7, THIS IS HOUSTON STANDING
BY THROUGH HONEYSUCKLE.
CAPCOM APOLLO 7, THIS HOUSTON, HOW DO YOU
READ?

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 10/14/68, (CDT: 9:42) 247/1

PAO THIS IS APOLLO CONTROL HOUSTON. 71 HOURS, 37 MINUTES INTO THE FLIGHT. WE ARE TRYING TO ESTABLISH COM WITH THE CREW BY THE HUNTSVILLE STATION, AND THE SIGNAL IS VERY SHAKEY, AS YOU RECALL IN THE EARLIER PASSES, THE HUNTSVILLE COM HAS NOT BEEN THE BEST AND IT IS NO BETTER TODAY. IN A FEW MINUTES WE EXPECT TO ACQUIRE THROUGH GUAYMAS. IN A VERY CLOUDY COMMUNICATION, CLOUDY VOICE COMMUNICATION WITH APOLLO 7 A FEW MINUTES AGO, THE CREW COMMANDER ADVISED THAT THEY WERE GO FOR THIS PASS, GO FOR THE TRANSPONDER TEST AT WHITE SANDS, AND GO FOR THE TELEVISION THROUGH CORPUS. WE SHOULD ACQUIRE BY THE GUAYMAS STATION - STAND BY 1 - WE'LL ACQUIRE AT 738 WHICH IS RIGHT NOW AND NOW WALLY IS COMING IN LOUD AND CLEAR.

SC SOUNDS LIKE IT'S (GARBLE) COMING IN PRETTY GOOD, HUH? (GARBLE) AT ABOUT .18 DEGREES.

CAPCOM THAT'S NOT BAD.

SC (GARBLE) GO AHEAD AND DID AN ALIGNMENT TO THE (GARBLE) WAS 58 MINUTES.

CAPCOM OKAY, THAT' WHAT WE -

PAO NOW WE HAVE ESTABLISHED GOOD COMMUNICATIONS WITH THE CREW; LET'S CUT IN ON THAT CONVERSATION NOW.

CAPCOM WE WANT THE DSC TO STOP AT 7146 PLUS 00.

SC ROGER; WE GOT IT.

CAPCOM OKAY. NOW AFTER WE FINISH, WHEN WE COME UP FOR THE TV PASS, FOR WALT, MAKE SURE THAT THE TAPE POSITION IS OFF; OVER.

SC ROGER.

CAPCOM TAPE OFF NOW.

CAPCOM OKAY, WALT, AGAIN, THE TAPE SHOULD STOP THE DSC AND THE TAPE OFF AT 71 PLUS 46.

SC THE TAPE IS STOPPED NOW AND THE DSC IS RUNNING AND I CAN KEEP THE DCS RUNNING; CAN I KEEP THE DSC RUNNING WITH THE TV ON?

CAPCOM YEAH, YOU SURE CAN WALT; NO PROBLEM.

SC ROGER.

CAPCOM APOLLO 7, HOUSTON. LOOKS LIKE WE HAVE A REAL PRETTY DAY DOWN HERE.

SC ROGER; THAT'S THE WAY IT LOOKS. HOUSTON, THIS IS APOLLO 7.

CAPCOM GO AHEAD.

SC ROGER; WHAT TIME DO YOU WANT THE TV TURNED ON?

CAPCOM SAY AGAIN.

SC AT WHAT TIME DO YOU WANT THE TV TURNED ON?

CAPCOM IN ABOUT - ROGER, WE ARE READY FOR TV NOW. TURN IT ON.

SC TV GOING ON.

PAO THIS IS APOLLO CONTROL HERE. WE JUST HEARD WALT CUNNINGHAM ACKNOWLEDGE HE WAS TURNING ON THE TV. WE ARE LOOKING AT A RATHER SNOWY TV SCREEN AND WE SEE NOTHING AT THIS POINT.

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PAO STILL NOTHING - A LITTLE SNOW PATTERN. WHICH IS CONSIDERED JUST NORMAL TV LINE NOISE. MOST OF THE FLIGHT CONTROLLERS HAVE THE PROPER CHANNEL PUNCHED UP. AND NOW WE ARE GETTING SOME INDICATION FROM THE NETWORK CONTROLLER THAT THE SIGNAL IS TOO WEAK TO READ. WE ARE 71 HOURS AND 43 MINUTES INTO THE FLIGHT. AND WE ARE ABOUT, NEARLY 1 MINUTE BEYOND THE TIME OF THE PLANNED CORPUS ACQUISITION. HERE COMES THE PICTURE AND IT'S WHITE. WE LOOK AT EISELE, NICE SHOT. LOOKS STRAIGHT UP, AND HE'S MOVING. HE'S REALLY QUITE CLEAR; LET'S ALL HAVE A LOOK AT IT.

CAPCOM YEAH, WE'RE PICKING IT UP, I CAN READ IT; JUST A MINUTE. IT SAYS, "FROM THAT LOVELY APOLLO," SOMETHING - HE DOESN'T WRITE - "HIGH ON TOP." IT LOOKS GOOD; I CAN SEE WALLY HANDLE IT NOW, AND DON HAS A SMILE ON HIS FACE AND THERE'S WALT. THE DEFINITION IS PRETTY GOOD DOWN HERE; I CAN SEE CENTER HATCH. ACTUALLY I AM AMAZED; IT LOOKS REAL GOOD. HEY DON, HOW ABOUT SAYING SOMETHING SINCE YOU'RE PAYING.

SC SAY AGAIN.

CAPCOM HEY, I CAN READ YOU; YOU'RE LOUD AND CLEAR. IT REALLY LOOKS GOOD; I AM AMAZED.

SC IT'S COMING IN - YOU WANT US TO PUT -

CAPCOM LEAN BACK A LITTLE BIT, YOU ARE TOO CLOSE TO THE CAMERA; THERE YOU ARE. WE'LL HAVE CECIL STAFFORD DIRECTING.

SC ROGER.

SC I FORGOT TO SHAVE THIS MORNING.

SC LOST MY RAZOR.

CAPCOM SOME OF THE REPRODUCTIONS HERE ARE REAL GOOD; I CAN LOOK OUT THROUGH WALLY'S RENDEZVOUS WINDOW; I CAN SEE THE COAST UP THERE, THE ORBIT RATE BALL.

SC WE'RE LOOKING RIGHT DOWN THE GULF COAST.

CAPCOM OKAY, WHAT'S THE NEXT ONE? LITTLE CLOSER WALLY.

CAPCOM IT SAYS, "KEEP THOSE CARDS AND LETTERS COMING IN FOLKS." AND IT'S LOUD AND CLEAR.

SC YES SIR, A PRETTY SHOW FOR THE WHOLE FAMILY. WOULD YOU LIKE TO GET A LOOK OUT THE WINDOW WITH THE TV CAMERA; I CAN GIVE YOU THE WHOLE ISLAND RIGHT HERE.

CAPCOM OKAY, LET'S TAKE A LOOK AND SEE HOW NEW ORLEANS IS THIS MORNING.

PAO APOLLO CONTROL HERE. YOU WERE LISTENING PRIMARILY TO TOM STAFFORD TALK WITH THE CREW; DEKE SLAYTON THREW IN A COUPLE OF LINES. HERE WE ARE WITH A VIEW OUT THE WINDOW.

SC COMING INTO VIEW NOW.

CAPCOM OKAY, WE'RE LOOKING.

SC (GARBLE)

CAPCOM OKAY.

PAO THE CREW REPORTS THAT THEY ARE CHANGING

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LENSES AND THAT THEY ARE RIGHT OVER LAKE PONCHATRAIN OUTSIDE NEW ORLEANS.

SC WE'RE ARE PASSING NOW OVER MOBILE BAY.
CAPCOM OKAY, WE'RE STARTING TO GET IT.

LOOKS LIKE THERE'S A FEW CLOUDS DOWN THERE. YEAH, WE CAN SEE IT. IS THAT THE COAST LINE YOU'RE POINTING RIGHT NOW?

SC GOING OVER MOBILE NOW, QUICKLY, AND

APOLLO 7 (GARBLE)

CAPCOM OKAY, WALLY, CAN YOU FOCUS ONE SPOT FOR A MINUTE? WE CAN SEE THE ORBITAL RATE COMING IN REAL FAST. THERE YOU GO. TRY TO HOLD IT ON ONE SPOT. NOW YOU CAN SEE THE COAST LINE.

SC THERE'S ENGINE ROLL HERE.

CAPCOM OKAY.

SC WE HAD A BEAUTIFUL DAY HERE; I CAN GIVE YOU A GOOD SHOT OF THE CAPE TODAY.

CAPCOM ALL RIGHT. YEAH, THERE'S THE COAST LINE; IT'S COMING IN GOOD.

SC ROGER.

CAPCOM REAL GOOD.

SC (GARBLE) THAT WE USED IN LINE WITH WHAT?

CAPCOM ALL RIGHT.

PAO THAT'S THE FLORIDA PENINSULA WE JUST

CROSSED IN ABOUT 1 MINUTE.

CAPCOM OKAY, ARE YOU PASSING OVER FLORIDA NOW?

SC AFFIRMATIVE.

CAPCOM OKAY, IF YOU CAN JUST HOLD IT. THE BIG THING ON THAT LONG LENS IS JUST TO HOLD IT STILL FOR ONE SPOT AND THEN MOVE TO ANOTHER IT LOOKS LIKE. YOU CAN SURE SEE ORBITAL MOTION.

SC TOM, WE USED (GARBLE) OUT AGAIN.

CAPCOM YOU'RE COMING IN GARBLED WALLY; I COULDN'T HEAR YOU.

SC THIS IS WHAT CONSTELLATION WE USED FOR

THE ALIGNMENT.

CAPCOM OKAY, STAND BY, WE'LL GET IT.

SC HERE'S THE ISLAND.

CAPCOM I THOUGHT YOU SAID -

SC WE DID.

PAO APOLLO CONTROL HERE. AMONG THE MORE INTERESTED VIEWERS OF THESE LIVE PICTURES AS THEY COME IN IS WALLY SCHIRRA'S WIFE, JO SCHIRRA, WHO I JUST OBSERVED LIGHTED HER SECOND CIGARETTE IN THE COURSE OF THIS PASS. SHE'S WITH MARJORIE SLAYTON, THE WIFE OF THE FLIGHT CREW OPERATIONS DIRECTOR HERE IN THE CONTROL CENTER.

CAPCOM LOOKS LIKE WE FOUND OUT WHAT'S WRONG WITH THE MARK BUTTON.

SC VERY GOOD.

CAPCOM OKAY, IT LOOKS LIKE THERE IS AN IMPROPER

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EXIT FROM A PROGRAM YESTERDAY AND WITH THE IMU'S ALIGNED WE
SELECT PROGRAM 20; IF YOU GOT A PIECE OF PAPER WE'LL COPY IT
DOWN TO YOU.

SC READY.

PAO APOLLO CONTROL HERE - IT LOOKS LIKE WE
ARE OUT ON THE EDGE OF THE CAPE ACQUISITION HERE; HERE WE
COME IN SHARP AGAIN, IT LOOKS LIKE THEY BROUGHT THE CAMERA
BACK INSIDE.

CAPCOM YOU ARE IN VERB 57 ENTER. AFTER THAT
YOU WILL KEY ENTER AND THEN YOU WILL SELECT PROGRAM 00. NOW
WHAT THAT DOES IS CAUSE A RESET OF FLIGHT WORK 2 BIT 14 WHICH
IS PREVENTING THAT MARK FROM GETTING IN.

SC (GARBLE)

CAPCOM P00.

PAO AND APOLLO CONTROL HERE. WE HAVE LOST
THE PICTURE; APPARENTLY HAVE LOST LOCK - HERE'S SOMETHING MORE
FROM THE CREW.

SC (GARBLE)

CAPCOM ROGER; THAT SHOULD RESET THAT FLIGHT WORK
AND YOU SHOULD BE ALL SET TO USE PROGRAM 51 AND 52 -

PAO THAT'S AFFIRMATIVE; NOW WE HAVE LOST LOCK;
THE SPACECRAFT IS OUT NEAR BERMUDA. HOWEVER, WE ARE NOW READY
TO GIVE YOU THE NASA INSTANT REPLAY OF THAT ENTIRE PASS. COULD
WE SEE THE TAPE FROM THE - I AM SORRY - IT IS NOT QUITE READY
YET. THE PICTURE CAME IN REMARKABLY CLEAR AND IT WAS SOME
TIME AFTER CUNNINGHAM REPORTED TURNING THE SWITCH ON. WE
LOOKED AT IT QUITE AWHILE AND IT SEEMED TO ME, WE'LL HAVE TO
GO BACK AND LISTEN -

END OF TAPE

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PAO ...WE LOOKED AT IT QUITE AWHILE, AND IT SEEMED TO ME, WE'LL HAVE TO GO BACK AND LISTEN TO THE TAPE ITSELF; BUT IT SEEMED TO ME THE CLARITY CAME UP ABOUT 200 PERCENT WHEN WE CHANGED LENS. THEN ANOTHER LENS CHANGE WAS MADE AS WALT CUNNINGHAM PUT IT OUT THE RIGHT HATCH, THE RIGHT SIDE WINDOW. STANDBY 1 AND SEE IF WE ARE READY WITH THE TAPE.

SC THAT LAST LAND WE SAW WAS AN EXAMPLE OF (GARBLE) WHAT MADE UP OUR OBSCURE DPO'S.

CAPCOM OKAY.

SC THIS IS STILL THE FIRST PHASE.

CAPCOM ROGER.

PAO HERE IS THE VIDEO TAPE BEING RUN ON ALL, AT LEAST NEWS CENTER MONITORS.

SC WHEN YOU PASS UP THE TOTAL RCS PROPELLANT REMAINING, I WOULD LIKE TO GET A READOUT FOR EACH QUAD ALSO.

CAPCOM APOLLO 7, HOUSTON.

SC GO AHEAD.

CAPCOM OKAY, WHAT WE'LL PLAN TO DO IS PUT YOU THE NAV LOAD FOR THIS MANEUVER UP OVER THE CANARIES AND WE'LL BE PASSING OVER THAT IN ABOUT ANOTHER 4 OR 5 MINUTES.

SC ROGER, STANDING BY.

CAPCOM SO, IF YOU GET A CHANCE, GO AHEAD AND SELECT PROGRAMS 00.

SC WE HAVE ALREADY TRIED TO (GARBLE).

CAPCOM OKAY.

CAPCOM APOLLO 7, HOUSTON THROUGH CANARY.

SC ROGER

CAPCOM ROGER, I READ YOU 5 BY.

SC JACK, WOULD YOU SAY AGAIN THE BURN TIME, FOR BURN 3.

CAPCOM RIGHT, 7548. WE'RE GOING TO BE SENDING YOU UP SOME NAV LOADS AND I'LL BE PASSING YOU UP A MANEUVER PAD HERE.

SC FINE.

CAPCOM APOLLO 7, HOUSTON, IF YOU WILL GO TO ACCEPT, WE'LL SEND YOU UP A NAV LOAD.

SC ROGER, ACCEPT.

CAPCOM WALT, YOU MIGHT LET ME KNOW WHEN YOU'RE READY TO COPY YOUR MANEUVER PAD.

SC COPY.

CAPCOM ROGER, SPS 3075475860 MINUS 00550 PLUS 02000 PLUS 004101601 PLUS 09030200730584 MINUS 086 MINUS 0460 PLUS 09.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68 GET: 720230 (CDT 10:07A) 249/1

CAPCOM 0 PLUS 09 303484 323 075 05 ALL BALLS PLUS 1330 MINUS 05642 1256 000 000 000. REMARKS, SCS CONTROL 2 SECOND TO JET ULLAGE USING QUADS B AND D. YOU WILL BE OUT OF PLANE TO THE SOUTH SLIGHTLY RETROGRADE, SLIGHTLY PITCH DOWN, THE SEXTANT STAR WILL NOT BE VISIBLE AFTER 075 PLUS 35 PLUS 00.

SC ROGER. I'LL HIT THE REMARKS FIRST. WE WON'T BE DOING A 2 JET ULLAGE ON SCS (GARBLED) BURN 3 075 47 5860 MINUS 00550 PLUS 02000 PLUS 00410 1601 PLUS 0903 02007 30584 MINUS 06 MINUS 046 009 30 3484 323 075 05 0000 PLUS 1330 MINUS 05642 1256 ALL BALLS ON THE ROLL, PITCH AND YAW, IT'S SCS BURNS FOR 20 SECONDS AND (GARBLED) ON THE 2 JET ULLAGE. OUT OF PLANE SOUTH SLIGHTLY RETROGRADE AND SEXTANT (GARBLED) 35 HOURS 35 MINUTES.

CAPCOM ROGER. THE REASON WE ARE DOING A 2 JET ULLAGE, WALLY, IS TO EVEN UP THE RCS FUEL. WHEN WE DO THIS ALL THE QUADS WILL BE EVEN AND WE WILL BE IN FAT SHAPE FOR AN SCS RCS DEORBIT RED LIGHT.

SC YOU SAID A 2 JET SCS (GARBLED) I CAN'T DO IT.

SC JACK, THE ONLY 2 JET ULLAGE WE'RE GOING TO DO IS ON A G AND N BURN.

CAPCOM ROGER. WE'LL COME BACK WITH YOU OVER THAT - OVER TANANARIVE. AND WE HAVE THE LOADS IN AND VERIFIED THE COMPUTER IS YOURS.

SC HOUSTON, APOLLO 7 (GARBLED)

CAPCOM ROGER SAY AGAIN.

PAO THIS IS APOLLO CONTROL HOUSTON 72 HOURS 7 MINUTES INTO THE FLIGHT AND IT APPEARS WE HAVE LOST LOCK THROUGH THE CANARY STATION. THE SPACECRAFT NOW IS MOVING ACROSS AFRICA. TO RECAP A COUPLE OF THE HIGHLIGHTS OF OUR FIRST TELEVISION PASS OF APOLLO 7, YOU SAW WALLY SCHIRRA EXTEND TWO CARDS DOWN CAMERA RANGE. THE FIRST ONE READ "HELLO FROM THE LOVELY APOLLO ROOM HIGH ATOP EVERYTHING." AND A LITTLE LATER YOU SAY HIM HOLD ANOTHER CARD UP, BOTH OBVIOUSLY IN JOULAR VEIN, IT SAID "KEEP THOSE CARDS AND LETTERS COMING IN, FOLKS." WE'VE TIMED THE TOTAL TELEVISION PASS FROM RECEIPT OF THE FIRST SEEABLE TO THE LOSS OF THE SIGNAL OUT OVER THE ATLANTIC, AT 7 MINUTES. A LITTLE BIT SHORTER THAN WE HAD ANTICIPATED, BUT ALL IN ALL WE ARE AGREED THAT IT WAS A GOOD, A VERY VALID FIRST TEST. IT HAD COMMENTS IN THE CONTROL CENTER HERE FROM VARIED FLIGHT CONTROLLERS, WORDS LIKE "AMAZING", "MUCH BETTER THAN I EXPECTED", GENERALLY THAT WOULD DESCRIBE THE REACTION HERE IN THE CENTER. WE WILL PLAN VERY LIKELY TO DO AN APOGEE ADJUSTMENT BURN A LITTLE LATER TODAY. THAT WILL BE DISCUSSED, I SUSPECT, OVER CARNARVON ON THE NEXT PASS, AND THE AFFECT OF THIS WILL BE TO LOWER APOGEE, WHICH IS PRESENTLY RUNNING

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PAO ABOUT 160 BY 122 AND IT WILL HAVE THE HAPPY AFFECT OF ADJUSTING - OF BRINGING OUR RCS BUDGETS - OUR ONBOARD PROPELLANT BUDGETS TO MORE CONSERVATIVE ALINEMENT. IN THE TELEVISION PASS DONN EISELE WAS WEARING HIS SPACE SUIT. HE STILL HAS IT ON. WE COULD SEE HIS HOSES SET UP UNPRESSURIZED, AND I'M LOOKING AT A RERUN NOW AND IT'S PRETTY CLEAR THAT WALLY SCHIRRA AND WALT CUNNINGHAM ARE IN THEIR FLIGHT COVERALLS, POWDER BLUE COVERALLS. OF COURSE, WE DON'T HAVE COLOR TELEVISION YET, BUT THEY ARE BLUE IN COLOR WITH A NASA WISHBONE AND AS I UNDERSTAND IT THE PICTURE IS BEING REPLAYED TO THE NEWS CENTER SO THEY CAN HAVE A LOOK. IT'S 72 HOURS AND 10 MINUTES INTO THE FLIGHT. THIS IS APOLLO CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 723800 (CDT 10:43A) 250/1

PAO THIS IS APOLLO CONTROL HOUSTON 72 HOURS 38 MINUTES INTO THE FLIGHT. WE HAVE SOME CONVERSATION WHICH WAS TAPED BACK AT TANANARIVE. WE WILL PLAY THAT FOR YOU AND WE ARE NOW MOVING INTO THE - RAPIDLY MOVING INTO THE AUSTRALIAN AREA AND WE WILL COME RIGHT INTO THAT. FIRST, THERE IS THIS WORD ON THE TRANSPONDER TEST FROM WHITE SANDS, IMMEDIATELY PRECEDING THAT MOST SUCCESSFUL TV PASS. THE DATA AT THIS POINT IS INCONCLUSIVE. THERE IS SOME INDICATION THAT THE TEST DIDN'T WORK OR PERHAPS WE WEREN'T POINTED JUST RIGHT, OR PERHAPS THE TRANSPONDER IN THE SPACECRAFT HAD NOT BEEN TURNED ON. I SAY AGAIN, THE DATA IS INCONCLUSIVE, BUT THE TEST OBJECTIVES WERE NOT FULFILLED IN THAT PARTICULAR PASS. WE HAVE OTHER REVS ACROSS WHITE SANDS AND THE TEST, OF COURSE, CAN BE REPEATED. NOW LET'S HEAR THE CONVERSATION VIA TANANARIVE.

CAPCOM APOLLO 7, HOUSTON THROUGH TANANARIVE.

SC ROGER HOUSTON, READ YOU LOUD AND CLEAR.

CAPCOM 055. ON THE - ON THIS TWO JET ULLAGE,

WALLY, WE FELT THAT WE COULD DO A TWO JET SPS ULLAGE, RCS ULLAGE AND SAVE ABOUT 8 POUNDS OF RCS FUEL. YOU CAN DO THIS BY HAVING THE PITCH AND YAW CHANNEL SWITCHES AT A AND PULLING PITCH MAIN A CIRCUIT BREAKER. HOW DO YOU FEEL ABOUT THAT?

SC WE'VE GOT TO FLY (GARBLE) ENERGY, JACK, (GARBLE) WE WILL GIVE YOU PEOPLE A PRETTY TIGHT BURN.

CAPCOM YOU WILL STILL HAVE TWO JET ULLAGE ATTITUDE HOLD.

SC THE MAIN THING IS I DON'T THINK YOU WILL OBSERVE IT (GARBLE)

CAPCOM OKAY, IF YOU ARE UNCOMFORTABLE ABOUT IT, WE WILL GO WITH THE FOUR JETS. WE JUST THOUGHT WE COULD SAVE YOU ABOUT 8 POUNDS OF FUEL.

SC OKAY, WE WILL GO WITH FOUR JETS.

CAPCOM OKAY, UNDERSTAND.

CAPCOM APOLLO 7, HOUSTON.

SC GO AHEAD.

CAPCOM OKAY, WALLY. ON THIS AC GLITCH, WHAT THEY ARE DOING IS WE HAVE A SERIES OF TESTS BEING RUN OFF LINE FIRST, BUT WE'RE USING 106 AT THE FACTORY TO CHECKOUT ALL THE AC SYSTEMS IN THE SENSING SYSTEMS. AT THE BEACH, THEY ARE TESTING THE WHOLE LASHUP, THE CRYO STANDS, HEATERS, AND EVERYTHING AND WE SHOULD HAVE SOME DATA ON THIS BY TOMORROW.

SC OKAY TOM. I THINK YOU SHOULD REALIZE THAT ALL THAT TROUBLE OF GOING INTO THE HYBRID GEARS IS

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SC THAT KIND OF GLITCH COMING ALONG.
CAPCOM THAT'S RIGHT AND THAT IS WHY WE JUST
DECIDED TO GO AHEAD AND DO THIS BURN 3 AND GET THE PERIGEE
DOWN.

SC OKAY, WE WILL BE DOING TWO JET HERE,
WE WILL HAVE TO KICK IT OVER FOR A WHILE.
CAPCOM OKAY, THEN WE HAVE GOT PLENTY OF TIME
TO PICK IT UP LATER. NO PROBLEM ON THAT.

SC OKAY.
CAPCOM AND THEY DON'T PLAN - THEY ARE NOT
SUGGESTING RUNNING ANY TEST ON BOARD UP THERE, WHAT WITH
THE AC POWER. WE WILL DO IT ALL ON THE GROUND AND TELL YOU
WHAT WE FIND OUT.

SC OKAY. WE ARE KNOCKING OFF ALL THE FUELS
SINCE WE WANT TO STAY OUT OF GIMBAL LOCK.

CAPCOM SAY AGAIN.
SC WE ARE KNOCKING OFF ALL FUELS EXCEPT
FOR ONE IN GIMBAL LOCK.

CAPCOM OKAY. WHAT WE ARE GOING TO DO IS DELETE
TO THE PRESENT ALL FLIGHT PLAN ITEMS AFTER 72 HOURS TO PRE-
PARE FOR THIS BURN.

SC CONCUR.
CAPCOM APOLLO 7, HOUSTON. ONE MINUTE TO LOS
TANANARIVE, WE WILL PICK UP ARIA 2 IN ABOUT 2 MINUTES AND
THEN ON THROUGH TO CARNARVON.

CAPCOM APOLLO 7, HOUSTON THROUGH CARNARVON.
SC ROGER, YOU ARE LOUD AND CLEAR, JACK.
CAPCOM YOU ARE LOUD AND CLEAR, WALLY. WE
HAVE A PROCEDURE FOR TROUBLESHOOTING THAT LOSS OF THE VOICE
AND TELEMETRY SUBCARRIER THAT WE HAD. ARE YOU READY TO
GO?

SC ROGER.
CAPCOM OKAY, WE ARE JUST GOING TO WALK YOU
THROUGH IT WALT. WE WOULD LIKE YOU TO SWITCH THE S-BAND
TRANSPONDER SWITCH TO PRIMARY, PAUSING IN OFF AS YOU GO
THROUGH FROM SECONDARY TO OFF TO PRIMARY.

SC JACK, GO SLOWER THAN THAT AND I WILL
FOLLOW YOU UP AGAIN.

CAPCOM OKAY. WE WOULD LIKE TO SWITCH THE
PRIMARY S-BAND TRANSPONDER SWITCH INTO OFF, PAUSING A BIT,
AND THEN TO PRIMARY.

SC S-BAND OFF.
CAPCOM S-BAND TRANSPONDER.
SC OKAY, GONE INTO PRIMARY, THEN OFF, THEN
BACK TO PRIMARY. GOT IT?

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CAPCOM OKAY, WE GOT IT. OKAY, NOW WE ARE
GOING TO WAIT A BIT AND LOOK AT SOME DATA HERE.
SC ROGER. I INTEND TO BLOW MY NOSE.
CAPCOM ALL RIGHT, GO AHEAD.
SC HOUSTON, APOLLO 7.
CAPCOM GO AHEAD.
SC DO YOU HAVE "TUT, TUT, TUT" TO YOUR
RECEIVER?
CAPCOM NEGATIVE. NEGATIVE, WALLY.
SC OKAY, AFFIRMATIVE DIGITAL PILOT GOES
"TUT, TUT, TUT".
CAPCOM ROGER, STAND BY.
SC WHATEVER THAT WAS, IT STOPPED IT.
CAPCOM ROGER.
SC IT MUST HAVE BEEN SOMETHING WRONG
WITH CARNARVON'S GEAR TRANSMITTING.
CAPCOM ROGER.
SC OKAY JACK. CARNARVON PROBABLY HAD A
(GARBLE)
CAPCOM APOLLO 7, HOUSTON.
SC GO JACK.
CAPCOM ROGER. ON THE RESULTS OF THIS TRANS-
PONDER SHIFT THAT WE'VE GONE THROUGH. WE'VE GOT OUR VOICE
AND TELEMETRY SUBCARRIER BACK. WE ARE GO ON THE PRIMARY
TRANSPONDER. THE PROBLEM WAS IN THE SECONDARY TRANSPONDER,
SO WE ARE GO THE WAY WE ARE.
SC VERY GOOD, I'LL LEAVE IT THIS WAY.
CAPCOM WALLY, DO YOU STILL HAVE THE CLICKING
IN THE RECEIVER?
SC THAT WAS AT CARNARVON. THEY GOT ON
IT RIGHT AWAY AND CLICKED IT OFF.
CAPCOM OKAY, REAL FINE.
SC WE WERE PAYING ATTENTION TO IT, THEY
DID A VERY GOOD JOB.
CAPCOM ROGER.
SC IN FACT, I WOULD SAY THE TEAM WORKED
HARDER TODAY THAN THEY DID YESTERDAY.
CAPCOM SAY AGAIN, WALLY.
SC I SAY, THIS TEAM WORKED HARDER TODAY
THAN IT DID YESTERDAY.
CAPCOM YOU BET YOUR LIFE.
SC GOOD SHOW.
CAPCOM APOLLO 7, HOUSTON. YOU WANT TO TURN
UP YOUR S-BAND VOLUME. WE ARE JUST ABOUT TO LOSE YOU OVER
CARNARVON.
SC ROGER.
CAPCOM AND 7, LOOKS LIKE THAT RIGHT NOW WE

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CAPCOM
DRIED OUT AGAIN.

OBSERVE THE PRIMARY EVAPORATOR HAS

SC

IT FIGURES.

PAO-

AND THIS IS APOLLO CONTROL HOUSTON.

WE MAY GET SOME ADDITIONAL BY EITHER WOOMERA OR HONEYSUCKLE,
BUT RIGHT NOW IT'S PRETTY NOISY. YOU HEARD ON THE LOOP,
THE GROUND, JACK SWIGER, OUR CAPSULE COMMUNICATOR TELL
APOLLO 7 THAT WE HAD RESOLVED THE TELEMETRY DIFFICULTY
WE NOTED EARLIER IN THE DAY. THE TROUBLESOME ITEM PROVED
TO BE A SECONDARY CIRCUIT TRANSPONDER AND IT HAS BEEN RULED
INOPERATIVE. WE SWITCHED OVER TO THE PRIMARY TRANSPONDER
IN THE TELEMETRY LOOP AND WE ARE GETTING ALL THE DATA FROM
THE - IN ALL POSSIBLE MODES AND EVERYTHING IS ROSY. THIS
BROUGHT A CHEER HERE, A SMALL CHEER IN THE CONTROL CENTER,
AND WHEN THE WORD WAS PASSED UP TO THE CREW, WE COULD HEAR
WHAT SOUNDED LIKE A CHEER THERE, AT LEAST DONN EISELE
CALLED WALT CUNNINGHAM TO BE SURE HE KNEW ABOUT IT. AP-
ARENTLY WALT MAY NOT HAVE HAD HIS HEADSET ON. SO ALL IN
ALL, THINGS ARE LOOKING UP AND QUITE ROSY AT THIS POINT, AND
WE WILL CONTINUE TO MONITOR UNTIL THE SPACECRAFT MOVES OFF
THE COAST OF AUSTRALIA. AT 72 HOURS 46 MINUTES INTO THE
MISSION, THIS IS APOLLO CONTROL HOUSTON.

END OF TAPE

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CAPCOM OBSERVE THE PRIMARY EVAPORATOR HAS
DRIED OUT AGAIN.

SC IT FIGURES.

PAO- AND THIS IS APOLLO CONTROL HOUSTON.
WE MAY GET SOME ADDITIONAL BY EITHER WOOMERA OR HONEYSUCKLE,
BUT RIGHT NOW IT'S PRETTY NOISY. YOU HEARD ON THE LOOP,
THE GROUND, JACK SWIGERT, OUR CAPSULE COMMUNICATOR TELL
APOLLO 7 THAT WE HAD RESOLVED THE TELEMETRY DIFFICULTY
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INOPERATIVE. WE SWITCHED OVER TO THE PRIMARY TRANSPONDER
IN THE TELEMETRY LOOP AND WE ARE GETTING ALL THE DATA FROM
THE - IN ALL POSSIBLE MODES AND EVERYTHING IS ROSY. THIS
BROUGHT A CHEER HERE, A SMALL CHEER IN THE CONTROL CENTER,
AND WHEN THE WORD WAS PASSED UP TO THE CREW, WE COULD HEAR
WHAT SOUNDED LIKE A CHEER THERE, AT LEAST DONN EISELE
CALLED WALT CUNNINGHAM TO BE SURE HE KNEW ABOUT IT. AP-
PARENTLY WALT MAY NOT HAVE HAD HIS HEADSET ON. SO ALL IN
ALL, THINGS ARE LOOKING UP AND QUITE ROSY AT THIS POINT, AND
WE WILL CONTINUE TO MONITOR UNTIL THE SPACECRAFT MOVES OFF
THE COAST OF AUSTRALIA. AT 72 HOURS 46 MINUTES INTO THE
MISSION, THIS IS APOLLO CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 724800 (CDT 10:53A) 251/1

PAO THIS IS APOLLO CONTROL HOUSTON, WE HAVE LOST LOCK WITH THE SPACECRAFT NOW, BY AUSTRALIA AND THAT WILL BRING THE CIRCUIT DOWN, WE'LL BE BACK UP IN ABOUT 12 MINUTES FROM HAWAII. ONE ADDITIONAL NOTE, ON THE TELEVISION PASS, THE ALTITUDE OF THE SPACECRAFT AT THE TIME THAT TRANS - TELEVISION TRANSMISSION CAME THROUGH WAS APPROXIMATELY 130 MILES AND DECENDING SLIGHTLY TO PERIGEE WHICH OCCURRED OUT IN THE ATLANTIC. YOU COULD SAY THE PASS STARTED ROUGHLY AT 130 MILES - NAUTICAL MILES AND PROBABLY WAS 126 OR 127 NAUTICAL MILES AT THE CONCLUSION OF THE PASS. TOMORROWS TELEVISION SHOW, IF YOU WILL, IS PRESENTLY SCHEDULED FOR AN ELAPSE TIME OF 95 HOURS AND 25 MINUTES, THAT'S THE CORPUS CHRISTI ACQUISITION TIME. AT 72 HOURS, 52 MINUTES INTO THE FLIGHT THIS IS APOLLO CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET 730140 CDT: 11:06 252/1

PAO THIS IS APOLLO CONTROL, HOUSTON, 73 HOURS
1 MINUTE INTO THE FLIGHT. WE'RE ON THE 46TH REVOLUTION AROUND
THE EARTH AND WE JUST PUT IN A CALL THROUGH HAWAII. HERE'S
HOW IT'S GOING.

CAPCOM ALOHA. WE WOULD LIKE TO ASK YOU WHETHER
YOU WERE ABLE TO ACCOMPLISH THE (CUT OFF)

SC ROGER. I HAVE ~~THE~~ TAPE RECORDER BEING
REWOUND NOW AND IT WILL BE READY FOR DUMP. WE DID A (GARBLE)
ALIGNMENT IN OUR LAST NIGHT PASS. USED DIPHDA AND
ALDEBARAN AND GOT 5 BALLS AND THE STAR ANGLE DIFFERENCE WILL
BE ON THE TAPE.

CAPCOM ROGER, COPY.
SC I MEAN DISTORTION ANGLE WILL BE ON THE
TAPE.

CAPCOM OKAY, COPY THAT. WALT, WE WOULD LIKE
TO ASK YOU WHETHER YOU WERE ABLE TO ACCOMPLISH THE SWITCHING
OPERATION? APOLLO 7, DO YOU READ HOUSTON? APOLLO 7, DO YOU
READ HOUSTON? APOLLO 7 HOUSTON. HELLO, APOLLO 7, HOUSTON.
APOLLO 7, DO YOU READ HOUSTON?

PAO APOLLO CONTROL HERE. THIS PASS IS RUNNING
WELL SOUTH OF HAWAII. WE APPARENTLY DID NOT HAVE A GOOD
ACQUISITION OR GOOD LOCK ON THE SIGNAL, BUT THE PASS WAS
OPENED BY CAPSULE COMMUNICATOR, -- CAPSULE COMMUNICATOR,
JACK SWIGERT, WITH THE WORD ALOHA. OF COURSE, HE IS HERE
IN HOUSTON, BUT THE SIGNAL WENT OUT THROUGH HAWAII. WE WILL
CONTINUE TO STAND BY.

CAPCOM APOLLO 7, HOW DO YOU READ HOUSTON?
APOLLO 7, HOUSTON.

PAO THIS IS APOLLO CONTROL, HOUSTON, APPARENTLY
WE ARE HAVING A LITTLE GROUND COMMUNICATION PROBLEMS. A LINE
PROBLEM APPARENTLY. NETWORK FLIGHT CONTROLLER JUST ADVISED
THAT ON THE LAST REV, OUR VOICE SIGNAL FROM HOUSTON WAS NOT
REACHING HAWAII. NOW WE ARE LOCKED UP AGAIN, LET'S GO BACK.

CAPCOM TRANSMISSION ON P52. WE WOULD LIKE TO
KNOW WHETHER YOU WERE ABLE TO ACCOMPLISH THE SWITCHING
OPERATION FOR THE WSMR RENDEZVOUS RADAR DURING THE TV OP-
ERATION?

SC I HAD TO THE HEATER ON, DONN TOLD ME,
ABOUT 2 MINUTES. WE HAD NOT COUNTED ON PERFORMING THAT, AND
THE WHOLE SEQUENCE IDEA WAS A BIT (GARBLE). WE PROBABLY
SHOULD NOT EVEN HAVE ATTEMPTED IT, JACK. HOWEVER, WE DID TURN
THE HEATER ON FOR A COUPLE OF MINUTES; TURNED IT TO POWER;
WE READ OUT THE TEST METER READOUTS, AND I DON'T KNOW IF
WE PASSED THEM DOWN, BUT WE GOT THEM LOGGED ONBOARD HERE.
THE LOCK ON -- THE SIGNAL STRENGTH NEVER CAME UP ABOVE
ABOUT 1.4 VOLTS, I THINK IT WAS.

CAPCOM OKAY, WE COPY THAT.
SC DID YOU HAVE ANY RESULTS FROM WSMR?

APOLLO 7 COMMENTARY, 10/14/68, GET: 730L40 (CDT: 11:06A) 252/2

CAPCOM NEGATIVE; THERE IS NO RESULTS FROM WSMR.
SC OKAY, AND SINCE WE'RE UP PRETTY WELL
ON FUEL, NOW, WE'D LIKE TO TRY AGAIN ON THE SECOND CALLOUT.

CAPCOM WALLY, IT LOOKS LIKE WE'RE GONNA HAVE
A CHANCE ABOUT - WE MAY HAVE A CHANCE ABOUT 30 MINUTES AFTER
THE BURN TO GET, TO TRY AGAIN OVER WSMR.

SC OKAY, AND THAT MIGHT BE PRETTY GOOD.
WE'LL HAVE A (GARBLE) AND CAN MAKE OUT ON THAT ONE.

CAPCOM RIGHT.

SC YOU STAY IN BURN ATTITUDE HOUSTON AND -

CAPCOM OKAY. OKAY, WALLY, I WANTED TO ASK YOU
A QUESTION. DID YOU HAVE A PROBLEM WITH YOUR BIOMED HARNESS,
ONE TIME?

SC YES I DID. AREN'T YOU READING ME NOW?

CAPCOM WE'RE READING - CENTER NOW, YOU WANT US
TO GO TO L AND P?

SC OKAY, WE HAVE SWITCHED TO L AND P.
(GARBLE) L AND P.

CAPCOM ALL RIGHT; REAL FINE.

SC JUST TO GIVE YOU A CABLE CONNECTION WITH
CDR IS IN THE RIGHT SEAT, L AND P IS IN THE CENTER SEAT
AND CNT IS IN THE LEFT SEAT. THAT IS PER FLIGHT PLAN BURN
3.

CAPCOM ROGER; WE COPY THAT.

SC ROGER.

SC JACK, DO YOU HAVE ENOUGH TIME THIS PASS
FOR ME TO START A TAPE DUMP; IT'S REWOUND.

CAPCOM NEGATIVE WALT. WE'LL GET YOU OVER THE
STATES FOR THE TAPE DUMP.

SC (GARBLE) COMMAND OKAY?

CAPCOM AFFIRMATIVE.

SC (GARBLE) AOS A TWO WAY LOG. I AM STILL
LOS.

CAPCOM AOS AND DOWNLINK SIGNAL IS VERY WEAK.
DOWNLINK SIGNAL VERY WEAK.

PAO THIS IS APOLLO CONTROL, HOUSTON. AND
WE ARE CONTINUING TO MONITOR THROUGH THE HUNTSVILLE AREA
BUT WE REALLY DON'T EXPECT TO GET A USEFUL VOICE SIGNAL.
WE SHOULD ACQUIRE FROM CALIFORNIA, A COMBINATION OF CALIFOR-
NIA AND GUAYMAS MOMENTARILY.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 731140 (CDT 11:16A) 253/1

PAO WE SHOULD ACQUIRE FROM CALIFORNIA COMBINATION - A COMBINATION OF CALIFORNIA AND GUAYMAS MOMENTARILY. YOU HEAR WALLY SCHIRRA GIVE US THE POSITIONING OF THE MEN FOR BURN 3. THIS IS THE THIRD BURN IN OUR FLIGHT PLAN, WHICH HAD BEEN PROGRAMMED FOR ABOUT 95 HOURS. IT IS BEING MOVED FORWARD IN THE FLIGHT PLAN AND IT'S PRESENTLY PLANNED TO DO THIS BURN AT 75 HOURS AND 47 MINUTES, 75 HOURS 47 MINUTES OF ELAPSED TIME. READING, WE ARE PRESENTLY 73 HOURS AND 12 MINUTES AND AS I STARTED TO SAY SCHIRRA POSITIONED THE PEOPLE FOR THIS BURN ACCORDINGLY. IT WILL BE DONN EISELE'S BURN. HE IS OVER IN THE CREW COMMANDER'S COUCH ON THE LEFT SIDE. WALT CUNNINGHAM WILL OCCUPY THE CENTER COUCH, WHICH WOULD NORMALLY BE OCCUPIED BY DONN EISELE, AND WALLY SCHIRRA WILL BE OVER IN WALT CUNNINGHAM'S COUCH ON THE RIGHT HAND SIDE, THE RIGHT COUCH. THAT WAS THE PLANNED CONFIGURATION OF PEOPLE FOR THE THIRD BURN AND A LITTLE LATER IN THE MISSION WALT CUNNINGHAM WILL MOVE INTO THE COMMANDER'S COUCH AND HE TOO WILL GET SOME EXPERIENCE IN HANDLING A BURN. WE HAVE REESTABLISHED COM AND LET'S GO BACK TO APOLLO 7.

SC ROGER, JACK, 5C READS 5 VOLTS FULL SCALE. 5D IS 5 VOLTS FULL SCALE. 6A IS 4.9. 6B IS 5.0. 6C IS 4.8. 6D IS 4.9 VOLTS.

CAPCOM REAL FINE. WE HAVE SOME - DUE TO THIS TRANSPONDER PROBLEM WE'D LIKE TO RECONFIGURE SOME SWITCHES THERE, AND THEN WE WILL BE BACK IN THE NORMAL CONFIGURATION FOR OUR COM SWITCHES. COULD WE GET YOU TO PUT YOUR POWER PMP SWITCH TO NORMAL.

SC PMP IS SET.

CAPCOM OKAY, YOUR FORWARD REWIND SWITCH TO FORWARD.

SC FORWARD REWIND SWITCH TO FORWARD.

CAPCOM YOUR RECORD PLAY SWITCH TO RECORD.

SC RECORD.

CAPCOM YOUR TELEMETRY INPUT SWITCH TO LOW.

SC (GARBLED)

CAPCOM OKAY REAL FINE. WE'RE NOW BACK IN NORMAL CONFIGURATION.

SC OKAY. YOU ASKED ABOUT MY BIOMED. I CHECKED AND THE LEAD WAS APART AGAIN.

CAPCOM OKAY REAL FINE.

SC IT'S TOO SHORT. THEY'VE GOT TO CHANGE (GARBLED). IT WAS ALRIGHT DURING FLIGHT PREPARATIONS.

SC JACK, I STILL HAVE THE TAPES SWITCH OFF. DO YOU WANT THE TAPES SWITCH ON?

CAPCOM OKAY, WE WANT THE SWITCHES JUST LIKE YOU'VE GOT THEM.

SC OKAY, THE TAPE IS OFF AND THE TAPE IS REWOUND. NO MOTION, STANDBY FOR YOUR DUMP (GARBLED)

APOLLO 7 COMMENTARY, 10/14/68, GET: 731140 (CDT 11:16A) 253/2

SC IN THE COM SYSTEM ALSO TO TELL YOU
THAT WE COULD NOT GET THE GLYCOL EVAPORATOR BACK IN RIGHT.
CAPCOM ROGER, WE COPY THAT.
CAPCOM OKAY, APOLLO 7, DID YOU TRY AND RESERVICE
THE PRIMARY EVAPORATOR?

SC THAT'S TRUE.

CAPCOM ROGER.

CAPCOM APOLLO 7 HOUSTON.

CAPCOM APOLLO 7 HOUSTON.

CAPCOM APOLLO 7 HOUSTON.

SC GO AHEAD.

CAPCOM ROGER. TO SUMMARIZE OUR FINDINGS ON THE
COM SYSTEM, WE HAVE FOUND THAT THE SECONDARY TRANSPONDER
HAS FAILED. WE HAVE NORMAL OPERATION ON THE PRIMARY TRANS-
PONDER AND EXCEPT FOR THE SECONDARY PROBLEM OUR COM SYSTEM
IS OPERATING NORMALLY.

SC ROGER.

CAPCOM APOLLO 7 HOUSTON.

SC GO AHEAD.

CAPCOM WALLY, ON THAT BIOMED HARNESS - THAT
PROBLEM THAT YOU REPORTED. DO YOU THINK YOU'LL HAVE TIME
TO DO ANY REPAIR WORK ON IT?

SC AFRAID NOT. THE NEXT TIME YOU ARE
READING ME IF YOU AREN'T GETTING IT ASK AND I CAN PLUG IT
BACK IN. IT SEEMS TO PULL OUT WHEN WE EXERCISE, OR DURING
A SLEEP PERIOD.

CAPCOM OKAY, WE COPY.

SC IT'S NO PROBLEM TO HOOK IT UP.

SC ONE OF THE SENSORS IS LEAKING. YOU BETTER
LEAVE IT OUT OR PULL IT OFF.

SC HOUSTON, THIS IS CDR. LET ME GIVE YOU
A CHECK OF OPERATOR LIGHT, CHECK MY LEAD. DID YOU RECEIVE?

CAPCOM STANDBY WALLY.

CAPCOM APOLLO 7 HOUSTON. WE'RE READING LMP
DATA IN THE CENTER SEAT.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 732100 (CDT 11:26A) 254/1

CAPCOM APOLLO 7, HOUSTON, WE'RE READING LMP
DATA.
SC ROGER. WE SWITCHED IT OVER, AND NOW
IT'S OVER IN THE RIGHT SEAT.
CAPCOM OKAY, WE COPY THE SWITCH. OKAY, WE'RE
GETTING GOOD DATA.
SC WE'RE GETTING THAT RADIO STATION
INTERFERENCE AGAIN.
CAPCOM OKAY. APOLLO 7, OPPOSITE OMNI.
SC OUR MAGAZINE O FOR OBOE.
CAPCOM ROGER, COPY.
SC 5, 6, 7, AND 8. WERE OF THE PENSACOLA
AREA, TALLAHASSEE, JACKSONVILLE, ST. JOHN'S RIVER TO ITS
OUTLET TO THE ATLANTIC.
CAPCOM OKAY, WE COPY MAGAZINE OBOE 6, 7, AND
8.
SC THAT WAS 5, 6, 7, AND 8.
CAPCOM ROGER, 5, 6, 7, AND 8.
SC HEY JACK, WE NEED A MAP UPDATE.
CAPCOM OKAY, COMING UP.
SC THANK YOU.
SC BY THE WAY, THESE FIVE WINDOWS, ALMOST
EVERY DARN ONE OF THEM IS LOOKING AT SOMETHING.
CAPCOM I DIDN'T COPY THAT, WALLY, COULD YOU
REPEAT?
SC ROGER, THESE FIVE WINDOWS HAVE A VIEW
ALMOST ALL THE TIME. EXCEPT THE CENTER HATCH WINDOW IS
USELESS FOR ANYTHING.
CAPCOM ROGER, COPY.
SC THAT WOULD BE A (GARBLE) WINDOW TO HAVE
WORKING.
CAPCOM ROGER, WE AGREE.
CAPCOM OKAY, APOLLO 7, I HAVE YOUR MAP UPDATE.
SC ROGER, GO AHEAD.
CAPCOM OKAY, FOR REV 46 THE GET OF THE NODE IS
72 PLUS 57 PLUS 26. LONGITUDE 178.7 DEGREES EAST RIGHT
ASCENSION 05 PLUS 28
SC THANK YOU.
SC JACK, THAT READS (GARBLE)
CAPCOM SAY AGAIN APOLLO 7.
SC YOU SAY IT'S 58 OR (GARBLE) MAGAZINE
OBOE. WE'RE ON BERMUDA LOUD AND CLEAR.
CAPCOM ROGER.
SC THE WESTERN ATLANTIC IS PRETTY WELL
CLOUDED OVER.
CAPCOM OKAY, COPY THAT.
SC I WOULD SAY ABOUT 40 MILES EAST OF
BERMUDA THERE'S A LONG FRONTAL LINE. IT'S RUNNING ON A LINE

APOLLO 7 COMMENTARY, 10/14/68, GET: 732100 CDT 11:26A 254/2

SC ABOUT NORTH AND SOUTH. THE TOPS ARE
RATHER DIFFICULT TO ESTIMATE THAT'S ABOUT ALL I CAN SEE
AT THIS TIME.

CAPCOM OKAY, COPY.

PAO THIS IS APOLLO CONTROL HOUSTON. JACK
SWIGERT IS GIVING APOLLO 7 A 1 MINUTE TO LOS BY BERMUDA AND
HE GETS A ROGER BACK. LET'S TURN IN.

SC READY TO TAKE A PICTURE.

CAPCOM APOLLO 7, HOUSTON, IT APPEARS WE GOT
85 DEGREES YAW, DO YOU CONCUR?

PAO THIS APOLLO CONTROL HOUSTON AT 73 HOURS,
31 MINUTES. WE'LL TAKE THE LINE DOWN NOW AND BRING IT BACK
UP AT ASCENSION.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 732900 (CDT: 11:44A) 255/1

PAO THIS IS APOLLO CONTROL HOUSTON, 73 HOURS 39 MINUTES INTO THE FLIGHT. AND WE ARE ABOUT TO ACQUIRE THROUGH ASCENSION. BEFORE WE DO, A WORD OR TWO MORE ON THE UPCOMING BURN PRESENTLY SCHEDULED FOR 75 HOURS AND 47 MINUTES. THIS WILL BE A PERIGEE ADJUSTING BURN, NOT AN APOGEE; I BELIEVE I REFERRED TO IT AS AN APOGEE ADJUSTING BURN. IT WILL BE A PERIGEE ADJUSTMENT AND IT WILL HAVE THE EFFECT OF LOWERING OUR PRESENT PERIGEE WHICH IS ABOUT 121.5 NAUTICAL MILES DOWN TO 90 NAUTICAL MILES AND THE APOGEE WHICH IS PRESENTLY 159 WILL REMAIN ABOUT THE SAME. BUT THE TOTAL EFFECT HERE IS TO GIVE US A LITTLE BIT MORE MARGIN ON OUR ONBOARD PROPELLANT SHOULD WE HAVE TO DO A, WHAT WE CALL A HYBRID DEORBIT OR IN OTHER WORDS, USE THE SMALL 100 POUND THRUSTERS RATHER THAN THE BIG SERVICE PROPULSION ENGINE; THAT'S OUR BACKUP DEORBIT CAPABILITY AND WE HAVE TO KEEP THAT CONSTANTLY IN MIND AND KEEP PLENTY OF MARGIN THERE TO INSURE THAT WE COULD DO THAT. NOW WE HAVE SUFFICIENT MARGIN RIGHT NOW BUT WE ARE GOING TO ADD TO THAT MARGIN BY ADJUSTING THE PERIGEE DOWNWARD ABOUT 30 MILES AND WE ARE DOING THIS SOME 20 HOURS OF WHEN WE HAD ROUTINELY PLANNED TO DO IT, IN THE FLIGHT PLAN. WE ARE PUTTING A CALL IN NOW TO APOLLO 7; HERE IS THAT COMMUNICATION THROUGH ASCENSION.

CAPCOM WE COPIED THAT OUR COURSE ALIGNED.
SC APOLLO 7 HERE, LOADED.
CAPCOM OKAY, YOU'RE GOING TO NEED TO DO P51 AND 52 AGAIN - YOU GO THROUGH P51 AND THEN 40 AND THEN P52 - AS A REMINDER IT WILL NOT BE NECESSARY TO GO TO P30 HOWEVER IF YOU DO, YOU WILL HAVE TO RELOAD THE TARGETS. DID YOU COPY THAT 7? APOLLO 7, HOUSTON.
SC SAY AGAIN.
CAPCOM DID YOU COPY MY MESSAGE ABOUT THE PROGRAMS?
SC AY AGAIN JACK.
CAPCOM OKAY, YOU'LL GO TO 51 THEN 40 AND THEN P52 AS A REMINDER IT WON'T BE NECESSARY TO GO TO PROGRAM 30, IF YOU DO YOU WILL HAVE TO RELOAD THE TARGET.
SC UNDERSTAND.
CAPCOM OKAY, REAL FINE. ONE QUESTION ON THESE PRIMARY EVAPORATORS; DID YOU, DID THE STEAM PRESSURE COME UP TO NORMAL? AFTER THE SERVE - RESERVICE?
SC YES, THE RESERVICE BURN WENT (GARBLE)
CAPCOM OKAY, COPY THAT. APOLLO 7, HOUSTON.
SC GO AHEAD HOUSTON.
CAPCOM ROGER. WOULD YOU GO INCREASE FOR 45 SECONDS ON YOUR T PRESSURE CONTROL VALVE SWITCH?
SC ROGER; WE'LL TRY IT AGAIN.
CAPCOM APOLLO 7, HOUSTON. 30 SECONDS TO LOS FOR ASCENSION; WE'LL PICK YOU UP OVER TANANARIVE IN ABOUT 18 MINUTES. WE'D LIKE TO WATCH OUR RESERVICE OVER CARNARVON.
SC ROGER; (GARBLE) UNDERSTAND ON PRESSURE VALVE.

APOLLO 7 COMMENTARY, 10/14/68, GET: 73:39:00 (CDT: 11:44A) 255/2

CAPCOM WE COPY THAT.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 740246 (CDT 12:13P) 256/1

PAO THIS IS APOLLO CONTROL HOUSTON 74
HOURS AND 02 MINUTES INTO THE FLIGHT. THE SPACECRAFT IS
JUST BEGINNING A SWING ACROSS THE INDIAN OCEAN. WE RECORDED
THIS CONVERSATION THROUGH TANANARIVE.

CAPCOM APOLLO 7, HOUSTON THROUGH TANANARIVE.
TANANARIVE M & O, HOUSTON CAPCOM.

TAN THIS IS CAPCOM TANANARIVE.

CAPCOM ARE WE GOING OUT DOWN THERE?

TAN AFFIRMATIVE.

CAPCOM OKAY(GARBLE).

CAPCOM APOLLO 7, HOUSTON THROUGH -

TAN THIS IS CAPCOM TANANARIVE.

CAPCOM ROGER, ARE WE GOING OUT DOWN THERE?

TAN AFFIRMATIVE.

CAPCOM OKAY(GARBLED)

TAN OKAY, THAT'S GOOD, THANK YOU.

CAPCOM APOLLO 7, HOUSTON THROUGH TANANARIVE.

SC OKAY HOUSTON, DO YOU READ ME NOW?

CAPCOM I READ YOU FINE NOW, WALLY.

SC (GARBLE)

CAPCOM ROGER.

CAPCOM APOLLO 7, HOUSTON, 45 SECONDS LOS
TANANARIVE. WE WILL PICK YOU UP OVER CARNARVON IN ABOUT
8 MINUTES.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 741120 (CDT 12:16P) 257/1

PAO THIS IS APOLLO CONTROL HOUSTON 74 HOURS 11 MINUTES INTO THE FLIGHT. WE'VE GOT SOME CONTACT VIA CARNARVON AND WE'VE ALSO GOT SOME GOOD NEWS HERE ON THE GROUND. WE WATCHED THE PRIMARY EVAPORATOR - THAT WATER BOILER WHICH WAS BALKY EARLIER IN THE FLIGHT, THEN THE TROUBLE SEEMED TO GO AWAY YESTERDAY, IT ALL SETTLED OUT, AND IT KIND OF KICKED UP AGAIN THIS MORNING. NOW IT'S BEHAVING MORE LIKE IT SHOULD. TIME AND AGAIN THE LITTLE TROUBLES THAT WE'VE HAD CONSISTENTLY HAVE BEEN IN THE ELECTRICAL ENVIRONMENT COMMUNICATIONS AREA, ALL OF WHICH SPELLS EECOM IN THE CONTROL CENTER. THAT'S OUR NAME FOR THAT PARTICULAR CONTROLLER, BUT FROM CARNARVON NOW LETS CUT OVER TO THAT CONVERSATION.

SC THIS IS APOLLO 7.

CAPCOM APOLLO 7 READ YOU 5 BY.

SC ROGER. WE JUST RESYNCHRONIZED OUR MET OF THE MPC IT WAS RUNNING 5 SECONDS SLOW. THE MET OF THE LEB WAS RIGHT ON.

CAPCOM OKAY, COPY THAT. AND WALLY, WE ARE STANDING BY TO WATCH FOR YOUR PRIMARY EVAPORATOR RESERVICE AND -- IF YOUR READY FOR IT.

SC JACK AS YOUR READING IT, THE STEAM PRESSURE HAS COME UP.

CAPCOM OKAY, WE COPY THAT NOW, WE SEE IT. THE OTHER THING IS THE BURN 3 FLIGHT PLAN ACTIVITY IS OF THE SCS ATTITUDE REFERENCE CHECK AND THE SLA STAMPING -- SCS SLA STAMPING WE WOULD JUST LIKE TO REMIND YOU OF THOSE.

SC ROGER.

PAO THIS IS APOLLO CONTROL HERE WE HAVE A LITTLE MACHINE DIFFICULTY WITH OUR TAPE DEVICE IN BUILDING 1. IT WILL BE FIXED MOMENTARILY WHEN WE SWITCH TO ANOTHER MACHINE. AND I'M SURE I'LL BE GIVEN THE SIGNAL WHEN THE MACHINE IS FIXED. WE'RE UP AND READY NOW.

CAPCOM APOLLO 7, WE COPIED YOUR CLOCK PROBLEMS. WE WOULD LIKE TO GIVE YOU A GET HACK 074 PLUS 12 PLUS 03 IN ABOUT 15 SECONDS.

SC HERE WE'VE GOT A 1665 ON THE BOARD.

CAPCOM OKAY.

SC THE WATER BOILER LIGHT IS ON AGAIN.

CAPCOM COPY. ABOUT THAT CHECK, DUE TO YOUR WATER BOILER COMMENT, I'LL GIVE IT TO YOU AT 074 PLUS 13 PLUS 00.

SC YOU CAN TAKE CARE OF THE TIME. I'D RATHER HAVE THAT INSTEAD. AREN'T YOU READING ME ON DSKY?

CAPCOM YES, WE HAVE A DELAY HERE, WALLY, THERE'S 4 3 2 1 MARK. 074 PLUS 13 PLUS 00. WE WILL READ THE DSKY BUT WE HAVE A DELAY HERE SO WE'RE NOT QUITE ACCURATE.

SC MIGHT ADD TO THAT, CONSIDERATION WE'RE 7/100 OF A SECOND OFF.

APOLLO 7 COMMENTARY, 10/14/68, GET: 741120 (CDT 12:16P) 257/1

PAO THIS IS APOLLO CONTROL HOUSTON 74 HOURS 11 MINUTES INTO THE FLIGHT. WE'VE GOT SOME CONTACT VIA CARNARVON AND WE'VE ALSO GOT SOME GOOD NEWS HERE ON THE GROUND. WE WATCHED THE PRIMARY EVAPORATOR - THAT WATER BOILER WHICH WAS BALKY EARLIER IN THE FLIGHT, THEN THE TROUBLE SEEMED TO GO AWAY YESTERDAY, IT ALL SETTLED OUT, AND IT KIND OF KICKED UP AGAIN THIS MORNING. NOW IT'S BEHAVING MORE LIKE IT SHOULD. TIME AND AGAIN THE LITTLE TROUBLES THAT WE'VE HAD CONSISTENTLY HAVE BEEN IN THE ELECTRICAL ENVIRONMENT COMMUNICATIONS AREA, ALL OF WHICH SPELLS EECOM IN THE CONTROL CENTER. THAT'S OUR NAME FOR THAT PARTICULAR CONTROLLER, BUT FROM CARNARVON NOW LETS CUT OVER TO THAT CONVERSATION.

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APOLLO 7 COMMENTARY, 10/14/68, GET: 741120 (CDT 12:16P) 257/1

PAO THIS IS APOLLO CONTROL HOUSTON 74 HOURS
11 MINUTES INTO THE FLIGHT. WE'VE GOT SOME CONTACT VIA
CARNARVON AND WE'VE ALSO GOT SOME GOOD NEWS HERE ON THE
GROUND. WE WATCHED THE PRIMARY EVAPORATOR - THAT WATER
BOILER WHICH WAS BALKY EARLIER IN THE FLIGHT, THEN THE
TROUBLE SEEMED TO GO AWAY YESTERDAY, IT ALL SETTLED OUT,
AND IT KIND OF KICKED UP AGAIN THIS MORNING. NOW IT'S
BEHAVING MORE LIKE IT SHOULD. TIME AND AGAIN THE LITTLE
TROUBLES THAT WE'VE HAD CONSISTENTLY HAVE BEEN IN THE ELEG-
TRICAL ENVIRONMENT COMMUNICATIONS AREA, ALL OF WHICH SPELLS
EECOM IN THE CONTROL CENTER. THAT'S OUR NAME FOR THAT
PARTICULAR CONTROLLER, BUT FROM CARNARVON NOW LETS CUT OVER
TO THAT CONVERSATION.

SC THIS IS APOLLO 7.

CAPCOM APOLLO 7 READ YOU 5 BY.

SC ROGER. WE JUST RESYNCHRONIZED OUR MET
OF THE MPC IT WAS RUNNING 5 SECONDS SLOW. THE MET OF THE
LEB WAS RIGHT ON.

CAPCOM OKAY, COPY THAT. AND WALLY, WE ARE
STANDING BY TO WATCH FOR YOUR PRIMARY EVAPORATOR RESERVICE
AND -- IF YOUR READY FOR IT.

SC JACK AS YOUR READING IT, THE STEAM
PRESSURE HAS COME UP.

CAPCOM OKAY, WE COPY THAT NOW, WE SEE IT.
THE OTHER THING IS THE BURN 3 FLIGHT PLAN ACTIVITY IS OF THE
SCS ATTITUDE REFERENCE CHECK AND THE SLA STAMPING --
SCS SLA STAMPING WE WOULD JUST LIKE TO REMIND YOU OF THOSE.

SC ROGER.

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LITTLE MACHINE DIFFICULTY WITH OUR TAPE DEVICE IN BUILDING
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7/100 OF A SECOND OFF.

APOLLO 7 COMMENTARY, 10/14/68, GET: 741120 (CDT 12:16 P) 257/2

CAPCOM OKAY, COPY.
SC OKAY, JACK. DID YOU (GARBLED)
CAPCOM APOLLO 7 HOUSTON.
SC GO AHEAD.
CAPCOM DO YOU HAVE ANY THOUGHTS ON WHY THE
EVAPORATOR DIDN'T RESERVICE THE TIME BEFORE THIS?
SC WE GAVE IT FIVE MINUTES. THIS TIME WE
GAVE IT A LITTLE BIT LONGER. THAT MAKES IT A VARIABLE.
CAPCOM OKAY, COPY.
SC (GARBLED) THAT MAY NOT BE THE ANSWER.
SC JACK, IT CAME BACK SPONTANEOUSLY LIKE IT
DID ONCE EARLIER IN THE FLIGHT.
CAPCOM ROGER, WE COPY THAT.
SC THAT PRESSURE VALVE, OR WATER CONTROL
VALVE IS FROZEN CLOSED OR SOMETHING?
SC IT MORE OR LESS COMES BACK ON ITS OWN.
CAPCOM OKAY WE COPY.
SC WHEN I SEE IT COMING BACK I APPARENTLY
HELP IT ALONG BY THROWING A LITTLE WATER ON IT.
CAPCOM WALT, OR WALLY, DO YOU THINK IT MIGHT BE
A STICKY SOLENOID IN THE WATER CONTROL VALVE?
SC COULD BE, IT'S THAT KIND OF A TROUBLE.
CAPCOM OKAY.
CAPCOM APOLLO 7 HOUSTON, 1 MINUTE LOS CARNARVON.
HAWAII IN 18 MINUTES.
SC THAT'S WHAT WE'VE GOT HERE.
CAPCOM ROGER.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 744025 (CDT: 1:46P) 258/1

PAO THIS IS APOLLO CONTROL HOUSTON. AT 74 HOURS AND 40 MINUTES INTO THE FLIGHT WE HAVE ACQUIRED HAWAII AND HERE IS WHAT IS GOING ON.

CAPCOM APOLLO 7, HOUSTON THROUGH HAWAII.

SC YES SIR.

CAPCOM YOU ARE LOUD AND CLEAR. WE WOULD LIKE TO PASS UP THIS WSMR RENDEZVOUS RADAR TEST DATA NOW - BEFORE WE GET ALL TIED UP WITH BURN PROCEDURES.

SC OKAY. WE WERE THINKING ABOUT THAT OURSELVES. (GARBLE)

CAPCOM OKAY, LET ME KNOW WHEN YOU ARE READY TO COPY.

SC GO AHEAD.

CAPCOM OKAY, YOUR ROLL ATTITUDE WILL BE 349.3 6305.8 YAW 061. YOUR GET AOS WILL BE 76 PLUS 23; ESTIMATED GET RENDEZVOUS RADAR LOCK 76 PLUS 25; THERE IS A REMARK TO RENDEZVOUS TRANSPONDER HEATER ON, AT 76 PLUS 00.

SC ROGER, UNDERSTAND. ALTITUDE 349.3 305.8 061 00. LOS AT 76 PLUS 23, LOCK ON AT 76 PLUS 25; HEATER ON AT 76 PLUS 00.

CAPCOM ROGER; THAT YAW ATTITUDE WOULD BE BETTER AT 060.8.

SC WE WILL GET IT PRETTY CLOSE TO 060 JACK.

CAPCOM OKAY.

SC ROGER. DO YOU PEOPLE HAVE ANY "DRUTHERS" FOR S BAND ANTENNAS COVERING THESE BURNS?

CAPCOM OKAY, STAND BY; WE'LL GET IT TO YOU.

SC JACK, ON THIS SLOSH TEST - THAT'S ALL THE MORE REASON TO GO TO (GARBLE) DURING THE BURN.

CAPCOM ROGER WALLY. WE COPY.

SC THANK YOU. I'M GOING DOWN INTO ATTITUDE NOW. HEY, JACK, IS THE S4B STILL UP?

CAPCOM AFFIRMATIVE.

SC I DON'T KNOW IF WE EVER REPORTED TO YOU; WALLY AND I OBSERVED IT VISUALLY WHEN IT WAS ABOUT 400 MILES BEHIND US AND IT LOOKS AS THOUGH IT'S ALMOST IN POSITION NOW.

CAPCOM OKAY, STAND BY. WE WILL GIVE IT TO YOU EXACTLY.

SC (GARBLE)

CAPCOM APOLLO 7; THE S4B APPEARS TO BE ABOUT 700 AND SOME ODD MILES AHEAD OF YOU.

SC ROGER. AOS -

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 745600 (CDT: 0:01P) 259/1

PAO THIS IS APOLLO CONTROL HOUSTON, 74 HOURS AND 56 MINUTES INTO THE FLIGHT. WE ARE IN TOUCH WITH THE SPACECRAFT WHICH IS ALMOST DIRECTLY OVER HOUSTON AND HERE IS HOW THAT CONVERSATION IS GOING.

CAPCOM HUNTSVILLE 2 WAY LOCK SOLID RANGE.

SC APOLLO.

CAPCOM GO AHEAD.

SC I THINK WE ARE PASSING OVER BAJA, CALIFORNIA, AGAIN. I TOOK THE FRAME, MAGAZINE O (GARBLE) 55 AND 56 HAWAIIAN ISLANDS, 57 AND 58 WERE BAJA, CALIFORNIA, GULF OF CALIFORNIA.

CAPCOM ROGER, COPY THAT ONE. APOLLO 7, HOUSTON.

SC GO HOUSTON.

CAPCOM ROGER, WE WOULD LIKE FOR YOU TO TURN YOUR O2 FANS TO ON FOR 3 MINUTES HERE.

SC HEY, JACK. EVERY SEVERAL HOURS I'VE BEEN SWITCHING FANS LIKE THIS.

CAPCOM OKAY, COPY THAT. WALT, WHEN WAS THE LAST TIME YOU DID IT ON TANK 1?

SC ON TANK 1 - OH, MAYBE AN HOUR AND A HALF AGO.

CAPCOM OKAY, WE WOULD LIKE YOU TO DO IT AGAIN HERE IF YOU WOULD.

SC DONE. JACK, I GAVE YOU THE WRONG FRAME NUMBER A WHILE AGO. IT'S 65 AND IT LOOKS LIKE ABOUT 58 AND 59 WITH THE HAWAIIAN ISLANDS AND 60, 61, 62 COMING ACROSS THE GULF COAST OF MEXICO.

CAPCOM OKAY, COPY.

SC HOUSTON, APOLLO 7.

CAPCOM GO AHEAD.

SC DID YOU GET THE FUEL USAGE ON THE BACKUP ALIGNMENT TECHNIQUE?

CAPCOM I'LL SEE IF I CAN GET SOME FIGURES ON THAT FOR YOU TO PASS UP.

SC OKAY, THE FUEL WE HAD BEFORE. WE TRIED THE - BEFORE THE ALIGNMENT UP HERE - THE FUEL WE HAD WHEN WE CAME ACROSS THE STATES ON THE TV PASS.

CAPCOM OKAY, APOLLO 7, HOUSTON. YOU CAN TURN THE O2 TANK 1 FAN OFF.

SC TANK 1 FAN IS OFF. IS IT YOUR WISH ONLY TO HAVE ONE RUNNING AT A TIME FROM EITHER OF THOSE TWO BUSES OR DO YOU INTEND TO KEEP THE PUMP OFF AND PUT THEM ON FOR THE NEXT (GARBLE).

CAPCOM OKAY, WALT. WHAT WE'RE GOING TO DO, WHAT WE HAVE BEEN DOING, IS HAVING ONLY ONE FAN ON AT A TIME. WHAT WE ARE GOING TO DO OVER ASCENSION HERE WE WANT YOU TO TURN THE FAN TANK 2 OFF AND THEN YOU'LL HAVE THEM BOTH OFF AND AFTER THE BURN WE'LL TURN THE NUMBER 2 FAN BACK ON.

SC OKAY, I GOT BOTH OF THEM OFF NOW. YOU WANT NUMBER 2 BACK ON?

CAPCOM ROGER. TURN NUMBER 2 ON RIGHT NOW; WE'LL

APOLLO 7 COMMENTARY, 10/14/68, GET: 745600 (CDT: 1:01P) 259/2

TURN IT OFF IN AT ASCENSION.

SC ROGER. I JUST TOOK 63 AND 64 OF MAGAZINE "O".

CAPCOM OKAY. APOLLO 7, HOUSTON.

SC ROGER; GO.

CAPCOM ROGER. ON THAT QUESTION ABOUT THE RCS FUEL USAGE FOR THE PERIOD ACROSS THE STATES AND INCLUDING THE BACKUP ALIGNMENT WE - ABOUT ALL WE CAN ACCURATELY PREDICT IS ABOUT 5 POUNDS OF RCS FUEL USAGE.

SC YOU HAD TO PREDICT THAT? YOU COULDN'T MEASURE THAT, HUH? (GARBLE) AGAIN, WE WOULD LIKE TO HAVE AN UPDATE TO OUR ONBOARD CHARTS NOW, IF YOU HAVE IT, AND THEN ONE AFTER THE BURN, PLEASE.

CAPCOM OKAY, COMING UP.

SC JACK, WHILE YOU'RE AT IT, I'D LIKE YOU TO CONSIDER THE CHLORINATION OF OUR WATER TODAY. IT TOOK JUST ABOUT - OH, ABOUT 3 (GARBLE) BEFORE IT STARTED TASTING PALATABLE AGAIN.

CAPCOM OKAY, COPY

SC PUT CHLORINE IN TOMORROW.

CAPCOM OKAY, STAND BY. APOLLO 7, ARE YOU IN AUTO IN THE PRIMARY EVAPORATOR STEAM PRESSURE?

SC THAT'S AFFIRMATIVE AND I SEE (GARBLE)

CAPCOM OKAY.

SC THIS TIME I'M NOT GOING TO TRY TO INCREASE IT; JUST TRY TO TURN THE WATER ON.

CAPCOM OKAY, APOLLO 7; WE DON'T WANT YOU TO DO THAT.

SC OKAY. MUST BE DRIED OUT.

CAPCOM OKAY, STAND BY 1

SC OKAY, I'M FALLING (GARBLE) NOW; ATTEMPTING (GARBLE)

CAPCOM OKAY, WE CONCUR ON IT.

SC IT SEEMS TO BE COMING UP.

CAPCOM ROGER; WE COPY.

CAPCOM AND WAIT; WE SUGGEST THAT YOU LEAVE THE BACK PRESSURE VALVE CLOSED UNTIL AFTER THE BURN AND THEN WE'LL THINK IT OUT; WE'LL HAVE THE ANSWER TO WALLY'S CHLORINATION QUESTION AFTER THE BURN ALSO.

SC ISN'T THAT; WE HAD SOME PRETTY BAD WATER; IT WAS PRETTY DISAPPOINTING.

CAPCOM OKAY COPY.

SC I COULDN'T EAT THE LAST PART OF MY LAST MEAL YESTERDAY CAUSE I DIDN'T WANT TO PUT THAT WATER IN IT.

CAPCOM ROGER.

SC A LIFT OFF AGREEMENT WAS THAT IF IT TASTED BAD, WE'D STOP; WE'RE JUST PROPOSING TO KNOCK OFF ONE DAY.

CAPCOM OKAY, WE COPY.

SC ROGER.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 750600 (CDT 01:11P) 260/1

SC HOUSTON, I'VE BEEN ABLE TO GET THIS UP TO A NORMAL RANGE SO - I SUSPECTED A LITTLE MANIPULATION OF THE WATER FLOW AND JUST GOT THE MOTOR OPERATING AGAIN, THAT'S THE WAY I DID IT ONCE BEFORE.

CAPCOM ROGER, COPY. AND WALT, THE FIGURE TO UPDATE YOUR ONBOARD RCS CHART IS 800 POUNDS, 800.

SC UNDERSTAND 800 NOW AND WILL BE STANDING BY FOR ONE AFTER THE BURN. AND WHAT DOES QUAD C HAVE NOW?

CAPCOM STAND BY.

CAPCOM WE WILL PICK YOU UP OVER ASCENSION IN ABOUT 6 MINUTES, WALT.

PAO AND AT 75 HOURS 07 MINUTES INTO THE MISSION, APOLLO 7 GOES OVER THE HILL FROM ANTIGUA AND AS YOU HEARD JACK SWIGERT SAY, WE WILL PICK YOU UP AT ASCENSION IN A FEW MINUTES. THIS IS APOLLO CONTROL IN HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 751600 (CDT 1:21P) 261/1

PAO THIS IS APOLLO CONTROL HOUSTON, 75 HOURS, 16 MINUTES AND WE HAVE ESTABLISHED CONTACT WITH THE CREW BY ASCENSION AND A MOST INTERESTING PIECE OF INFORMATION RESULTS FROM THE CONVERSATION. WALLY SCHIRRA MENTIONED THAT WALT CUNNINGHAM CAME UP IN THE LINE TO CONFIRM THAT IN FACT THEY HAD SEEN AND OBSERVED AND TRACKED A STAR IN DAYLIGHT. I'LL SAY THAT AGAIN THAT THE CREW CONFIRMS THEY SAW AND TRACKED A STAR IN DAYLIGHT. HERE IS THE TAPE OF THE CONVERSATION AS WE MOVE THROUGH THE ASCENSION AREA.

CAPCOM APOLLO 7, HOUSTON. HELLO APOLLO 7, HOUSTON. HELLO APOLLO 7, HOUSTON. HELLO APOLLO 7, HOUSTON.

SC ROGER, I'M CLEAR.

CAPCOM ROGER, YOU'RE NOT COMING IN LOUD AND CLEAR, I'LL AGAIN REMIND YOU ON THE STAR CHECK THAT THE SEXTANT STARS ARE NOT VISIBLE AFTER 75 PLUS 35.

SC ROGER, WE'RE SET UP.

CAPCOM AND I JUST WANTED TO RECHECK ON WHAT THE STARS LOOK LIKE AND ALSO JACK WILL TALK TO YOU NOW ON THE GROUND.

SC OKAY, WE THINK WE HAD A STAR CHECK IN DAYLIGHT, BUT WE'RE NOT SURE.

CAPCOM OKAY.

SC THE APPROXIMATE ATTITUDE AND I LOOKED FOR THE STAR AND IT CAME IN WITH AUTO OPTICS. I'M PRETTY SURE IT WAS LINED UP AND I'M PRETTY SURE I WAS LOOKING AT THE RIGHT STAR IN THE DAYTIME USING A SEXTANT ONLY.

CAPCOM OKAY, REAL GOOD.

SC OKAY.

CAPCOM AND WALT, THE QUESTION YOU ASKED ON QUAD C FUEL, THE READOUT IS 177 LBS. YOUR OMNI ANTENNA FOR THE BURN WILL BE OMNI B, BAKER, AND WE WOULD LIKE YOU TO TURN THE O2 FANS IN TANK 2 TO OFF.

SC TANK 2 IS OFF, 177, I ASSUME THAT'S QUAD C.

CAPCOM QUAD C, CHARLIE.

SC ROGER, AND I'VE GOT A ANTENNA B FOR THE BURN.

CAPCOM APOLLO 7, HOUSTON. ONE MINUTE TO LOS ASCENSION. WE'LL PICK YOU UP AT TANANARIVE IN 10 MINUTES.

SC ROGER.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 753105 (CDT 01:36P) 262/1

PAO THIS IS APOLLO CONTROL HOUSTON 75 HOURS 31 MINUTES INTO THE FLIGHT. THE SPACECRAFT IS APPROACHING THE TANANARIVE SITE AND THE FIRST CALL IS GOING OUT TO THEM.

PAO THE SPS BURN, BURN NUMBER 3, IS PRESENTLY PROGRAMED 17 MINUTES FROM NOW, AT 7548. IT WILL BE A 9 SECOND BURN, 211 FEET PER SECOND. IT WILL BE DONE WITH THE BIG ENGINE OUT OF PLANE. THE RESULTING PERIGEE SHOULD BE 90 MILES WITH AN APOGEE OF 160. THE BURN ITSELF SHOULD TAKE PLACE OVER AUSTRALIA, ABOUT 3 MINUTES INTO THE AUSTRALIAN PASS. CORRECT THAT - WELL, 3 MINUTES INTO THE CARNARVON AREA, ACTUALLY PASS WILL TAKE IT - TAKE THE SPACECRAFT NORTHWEST OF THE AUSTRALIAN CONTINENT. IT WILL RUN PARALLEL ABOUT 500 MILES NORTHWEST AUSTRALIAN COAST, AND THEN SWING UP THROUGH THE ISLAND CHAINS THROUGH THE PACIFIC.

PAO WELL, I THINK IT'S UNLIKELY THAT WE WILL GET A CONVERSATION VIA TANANARIVE, SO LET ME TAKE THE LINE DOWN AND WAIT FOR AUSTRALIA. AT 75 HOURS 34 MINUTES INTO THE FLIGHT, THIS IS APOLLO CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY 10/14/68, GET: 754531 (CDT 1:51P) 263/1

PAO THIS IS APOLLO CONTROL HOUSTON 75 HOURS 45 MINUTES INTO THE FLIGHT AND WE'RE ONLY A FEW MINUTES AWAY FROM THE THIRD BURN - MAJOR BURN - OF THIS FLIGHT, A 211 FOOT PER SECOND BURN WHICH WILL BE DONE OUT OF PLANE WITH THE ENGINE POINTED SOUTH. THE ENGINE POINTED SOUTH. JACK SWIGERT IS NOW COUNTING THE CREW DOWN TO MARK T MINUS 2 MINUTES AWAY FROM THE BURN. ON THE STATESIDE PASS THIS NEXT REV, OR THIS PRESENT REV WHICH IS REV 48, THE RADAR TRANSPONDER TEST BETWEEN THE SPACECRAFT AND WHITE SANDS MISSILE RANGE WILL BE REPEATED. THE RENDEZVOUS TRANSPONDER HEATER WILL BE TURNED ON A GOOD 10 MINUTES BEFORE THE TEST. THAT MAY HAVE HAD SOMETHING TO DO WITH THE LACK OF DATA ON THE RUN. THERE WAS SOME QUESTION AS TO JUST WHEN THAT HEATER HAD BEEN TURNED ON IN THE OTHER ELEMENTS. THIS TIME IT'S GOTTEN A LITTLE MORE ATTENTION, AND WE'RE STANDING BY FOR THE BURN. DONN EISELE'S IN THE COMMANDER'S SEAT. WALLY SCHIRRA HAS MOVED OVER TO THE RIGHT COUCH, AND WALT CUNNINGHAM IS IN THE CENTER COUCH. ALL QUITE IN THE SPACECRAFT. SECONDS ARE COUNTED OFF. 15 SECONDS, 5, 4, 3, 2, 1, ZERO. IGNITION, AND WE SEE THRUST, BEAUTIFUL CUTOFF, SAYS CUNNINGHAM, HERE IS THEIR REPORT.

CAPCOM	APOLLO 7, HOUSTON THROUGH CARNARVON.
SC	ROGER.
CAPCOM	I'LL GIVE YOU A TIME HACK AT 2 MINUTES.
SC	ROGER, STANDING BY. THE FDAI STILL 5 5.
CAPCOM	OKAY, 10 SECONDS TO TIME HACK 6 5 4
3 2 1 MARK.	T MINUS 2 MINUTES.
SC	SPEED NORMAL. KEY CONTROLLERS ON.
CAPCOM	ONE IS ON
SC	HEAT CONTROLLER ON. LIMIT CYCLE OFF.
CAPCOM	LIMIT CYCLE OFF.
SC	STANDING BY FOR 30 SECONDS.
CAPCOM	ROGER.
SC	(GARBLE)
CAPCOM	FOR JETTO'S IN 15 SECONDS.
SC	ROGER.
CAPCOM	10 9 8 7 6 5 4 3 2 1 ZERO.
SC	BEAUTIFUL CUT-OFF.
SC	(GARBLE) CUT IT OFF 1 2 3 AND 4.
SC	DID YOU PICK UP THAT SLA STAMPING JAZZ?
CAPCOM	ROGER, COPY.
SC	THAT'S ALL THAT WE WANT. JACK, ARE YOU
PICKING UP ANY RESIDUALS?	
CAPCOM	AFFIRMATIVE WE COPY.
SC	T .3 MINUS 14.3.
COM	COPY THE DELTA V (GARBLE)
	CARE IF I TURN MY CHANNELS OFF?

APOLLO 7 COMMENTARY, 10/14/68 GET: 754531 CDT 1:51P

263/2

SC THAT WILL BE ALL.
SC THAT'S ALL OF IT. THEY'RE OFF. THEY'RE
OFF.(GARBLE) STAND BY. LOCKED AND ALL CHANNELS ARE OFF.
CAPCOM ROGER, COPY.
SC WALT SAYS HE IS SURPRISED HOW THAT THING
REALLY SLAPS YOU.
CAPCOM ROGER, I BET.
SC JACK, ON THAT SLA STAMP WE'RE GETTING
ABSOLUTELY NO FIRINGS AT ALL. AND 4 DEGREE DEAD BAND.
CAPCOM THAT'S WHAT WE LIKE TO HEAR.
SC YES, THAT SAVES A LOT OF FUEL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 755838 (CDT 02:04P) 264/1

PAO THIS IS APOLLO CONTROL HOUSTON 75
HOURS 58 MINUTES INTO THE MISSION. WE HAVE ACQUIRED THROUGH
GUAM AND WE HAVE ALSO HAD A CHANCE TO LOOK AT SOME OF THE
DATA - THAT BURN CAME EXACTLY AS PROGRAMED, THE RESULTING
ORBIT IS 90 MILES BY 160. THE CREW WAS CONGRATULATED BY
CAPCOM JACK SWIGERT. HERE IS HOW THE CONVERSATION IS GOING AS
WE MOVE THROUGH GUAM.

CAPCOM APOLLO 7, HOUSTON THROUGH GUAM.
SC ROGER.
CAPCOM THAT WAS A REAL GOOD BURN, WALLY. WE
CONFIRMED YOUR ORBIT ON RADAR, 90 BY 160.
SC ROGER.
CAPCOM AND WE WOULD LIKE TO HAVE YOUR O2
FANS TANK 2 TO AUTO.
SC DONE.
CAPCOM OKAY AND O2 FANS TANK 1 TO OFF, AND
REMAIN IN THIS CONFIGURATION UNTIL GROUND CUE.
SC ROGER, STANDING BY.
CAPCOM OKAY. AFTER THE WSMR RADAR TEST WHICH
IS COMING UP, WE WILL BE READY TO POWER DOWN AND SET UP
HOUSEKEEPING.

SC ROGER.
PAO THIS IS APOLLO CONTROL HERE. IT IS
QUESTIONABLE WHETHER WE WILL GET ANY ADDITIONAL - HERE COMES
A CALL NOW. THEY ARE BEING GIVEN 1 MINUTE TO LOS.

SC (GARBLE)
CAPCOM WE COULDN'T COPY THAT, WALLY. SAY
THAT AGAIN.

SC ROGER. WE HAVE THE TRANSPONDER HEATER
ON, WE ARE WORKING INTO ATTITUDE.

CAPCOM OKAY, REAL FINE, REAL FINE.
PAO APOLLO CONTROL HERE. WALLY SAYS THEY
ARE GETTING SET UP FOR THE TRANSPONDER RUN OVER WHITE SANDS
AGAIN, WHICH IS UPCOMING ON THIS PASS. FOLLOWING THAT
THIRD BURN, HERE ARE SOME NUMBERS ON THE REMAINING PROPEL-
LANT. SPS FUEL WEIGHT IN POUNDS REMAINING IS 2,874; SPS
OXIDIZER WEIGHT IN POUNDS REMAINING IS 4,683 - 4,683 OXIDI-
ZER, 2,874 FUEL. THEN YOU ADD THOSE TOGETHER AND YOU HAVE
YOUR PROPELLANT. IN THE QUADS, THE REACTION CONTROL SYSTEM
ENGINES - THEY READ THUSLY: QUAD A SHOWS ABOUT 175 POUNDS
OF PROPELLANT, THAT'S A COMBINATION NUMBER; QUAD B IS 201;
QUAD C IS 171; AND QUAD D AS IN DOG IS 201. APOLLO 7 IS
BEING TOLD THAT AN AIRCRAFT ARIA 3 IS OUT EAST - IS BETWEEN
THE GUAM CIRCLE AND HAWAII. IF THEY HAVE ANYTHING TO TRANS-
MIT, THEY CAN REACH US THROUGH THAT AIRCRAFT, A KC135, FIVE
OF WHICH ARE AVAILABLE FOR DEPLOYMENT IN THE SPECIFIC AREAS
BETWEEN SHIPS, GIVING US VERY EXTENSIVE TRACKING COVERAGE.

APOLLO 7 COMMENTARY, 10/14/68, GET: 755838 (CDT 02:04P) 264/2

PAO AT 76 HOURS 05 MINUTES OF APOLLO 7,
THIS IS HOUSTON.

APOLLO 7 COMMENTARY, 10/14/68, GET: 761555 (CDT 2:21P) 265/1

PAO THIS IS APOLLO CONTROL HOUSTON, 76 HOURS,
15 MINUTES. THROUGH HAWAII, WE ARE HAVING THIS CONVERSATION.
CAPCOM APOLLO 7, HOUSTON THROUGH HAWAII STANDING
BY. APOLLO 7, HOUSTON THROUGH HAWAII.

SC ROGER.

GOOD - CLOSE LOOK AT THE SPS DATA AND IT WAS RIGHT DOWN
THE LINE. REAL GOOD OPERATION.

SC ROGER, SOUNDS LIKE I GOT A GOOD ENGINE.
CAPCOM IT SURE DOES. APOLLO 7, HOUSTON.

SC ROGER.

CAPCOM OKAY, WALLY, ON YOUR QUESTION ON THE
CHLORINATION, YOU MAY DELETE THE CHLORINATION FOR TODAY.
WE'LL ASK YOU FOR SOME LATER DATA ON THE TAPES OF YOUR WATER
AS WE GO ALONG.

SC ROGER, (GARBLE). VERY GOOD.

SC JACK.

CAPCOM ALRIGHT, GO AHEAD WALLY.

SC IF THERE'S A POWER DOWN, I'D LIKE TO
LEAVE ONE OF THE BLUE BAGS THERE TO CHECK OUR SPEED-UP RATE
DURING DRIFTING FLIGHT. I'D LIKE TO START DRIFTING FLIGHT
WITH OUR RATE ALMOST TO 0 AND THEN WE'LL SEE HOW THAT
DEVELOPS.

CAPCOM ROGER, WE CONCUR.

SC WE HEARD A REPORT LAST NIGHT THAT LUNNEY
SAID IT LOOKED LIKE WE WERE VERY STABLE, BUT IT TURNED OUT
NOT TO BE TRUE.

CAPCOM WHICH ONE DO YOU PLAN TO LEAVE ON, WALLY?

SC (GARBLE) LIFTERS, WE COULD GET A CHECK ON
THIS CONTROL BOARD, WE'RE ANOTHER 2 (GARBLE) RATE HIGH, SCS
ATTITUDE LOW.

CAPCOM ROGER, WE COPY.

SC GARBLE. GOT TO PREPARE THAT SQUARE FOR
THE GTO.

SC GARBLE.

SC GARBLE, THE COMMAND, GARBLE.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 762555 (CDT: 2:31 P) 266/1

SC ROGER UNDERSTAND; THE READING IS COMING
UP.
SC (GARBLE)
SC (GARBLE) THAT'S ABOUT 1.12 VOLTS. ROGER.
(GARBLE) 145. - 1.50.
CAPCOM ROGER; UNDERSTAND. SOLID OF 15.
SC ROGER; THAT'S GOOD NEWS. SET ON 1.7
THERE.
CAPCOM ROGER.
SC - POINT IS 1.8. 1.7 (GARBLE)
CAPCOM ROGER.
SC (GARBLE) ABOUT 1.4. (GARBLE) FEEL
A LOT BETTER.
CAPCOM OKAY.
SC LOOKS LIKE WE BEAT THE GEMINI 6.
CAPCOM ROGER.
SC STILL IN HAVING LOX 1.5 IN THROUGH (GARBLE)
CAPCOM OKAY; 1.5.
SC JUST DROPPED OFF AND SHE'S DOWN. (GARBLE)
GOOD JOB. I THINK I STARTED THE OTHER LOX.
CAPCOM OKAY, START THE - HERE.
SC OKAY.
CAPCOM OKAY.
SC (GARBLE)
CAPCOM YEAH, YOU'RE GONNA BE CUTTING ACROSS DOWN
AROUND MEXICO CITY SHORTLY.
SC (GARBLE)
CAPCOM OKAY, AS SOON AS WE FIND OUT THE DATA
WALLY; WE'LL CALL IT BACK TO YOU.
SC OKAY, I'M SURE GLAD TO SEE YOU GOT
THAT ONE.
CAPCOM ROGER. APOLLO 7, HOUSTON.
SC (GARBLE)
CAPCOM ROGER. WHITE SANDS SAID THEY HAD LOCKED
ON SOLID, HAD GOOD DATA, THEY HAD YOU AT 450 MILES FOR 50
SECONDS.
SC MEXICO; YOU MEAN THEY COPIED IT?
CAPCOM YEAH, RIGHT - RATE OURSELVES PRETTY
GOOD DOESN'T IT?
SC GOOD NEWS.
CAPCOM GOOD SHOW
SC I'M GOING TO GET OUT OF THIS -
CAPCOM YUK.
SC - MODE. I CAN'T GUARANTEE (GARBLE)
TV OF THE PICTURE.
CAPCOM (LAUGHTER ONLY)
SC SOME KIND OF SMALL SUCCESS THERE.

APOLLO 7 COMMENTARY, 10/14/68, GET: 762555 (CDT: 2:31P) 266/2

CAPCOM THE DPO'S ARE LOOKING PRETTY GOOD.
SC ROGER.
CAPCOM THEY SURE LOOKED GOOD AROUND SCS BURN
TOO; THAT LOOKED BRIGHT AS THE DICKENS.
SC (GARBLE)
CAPCOM ROGER.
SC (GARBLE)
CAPCOM ROGER; WE HAVE YAW AT 70 DEGREE AT THIS
TIME.
SC (GARBLE) SO WE WON'T WORRY ABOUT THAT
AT CARNARVON.
CAPCOM ROGER; I'LL GIVE YOUR REGARDS TO MIT.
SC WE'LL DROP ANOTHER (GARBLE)
CAPCOM OKAY.
SC SOMEWHERE WE'RE PLANNING TO POWER DOWN HERE;
DOES THAT JIVE WITH YOUR REVISED?
CAPCOM THAT'S RIGHT; WE'RE GOING TO POWER DOWN
SHORTLY.
SC OKAY, WE'LL LEAVE THE (GARBLE)
UP.
CAPCOM OKAY.
END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 765000 (CDT 0253P) 267/1

PAO THIS IS APOLLO CONTROL AT 76 HOURS 50 MINUTES INTO THE MISSION. AT PRESENT TIME THE SPACECRAFT IS COMING UP ON THE ASCENSION TRACKING STATION. ACTUALLY, ~~THE SPACECRAFT WILL BE PASSING WELL SOUTH OF ASCENSION, AND~~ THIS WILL BE A VERY LOW ELEVATION PASS. WE WOULD NOT EXPECT A GREAT DEAL OF COMMUNICATIONS TO DEVELOP BETWEEN THE GROUND AND THE CREW. HOWEVER, WE WILL STAND BY FOR ANY CONVERSATIONS THAT MIGHT DEVELOP WITH THE CREW ON THIS PASS AND DURING THAT PREVIOUS STATESIDE PASS, THE CREW WAS GIVEN A GO-AHEAD TO BEGIN POWERING DOWN THE SPACECRAFT. WE JUST GOT THE CALL TO THE SPACECRAFT, CAPCOM RON EVANS WILL PICK UP THAT CONVERSATION AS IT DEVELOPS.

CAPCOM APOLLO 7, HOUSTON. YOUR WASTE QUANTITY IS NOW ABOUT 77 PERCENT AND YOU HAVE A GO TO DUMP AT YOUR CONVENIENCE.

SC ROGER. WE WILL PROBABLY WAIT (GARBLE)
RON.

CAPCOM ROGER.

PAO THIS IS APOLLO CONTROL. WE HAVE LOST SIGNAL AT ASCENSION. THE NEXT VOICE STATION TO ACQUIRE WILL BE THE TANANARIVE TRACKING STATION. DURING THAT PASS, YOU HEARD THE GROUND ADVISE THE CREW THAT THE WASTE WATER TANK WAS APPROACHING 70 PERCENT - 77 PERCENT FULL MARK AND THAT THE CREW WAS ADVISED TO DUMP THE TANK AT THEIR CONVENIENCE. DONN EISELE IS SCHEDULED HIS SLEEP CYCLE AND AS WE MENTIONED BEFORE, THE SPACECRAFT WILL BE POWERED DOWN. THIS WILL BE PRIMARILY THE GUIDANCE AND NAVIGATION SYSTEM AND THE STABILIZATION AND CONTROL SYSTEM. THESE TWO SYSTEMS WERE NO LONGER NEEDED AFTER THAT VERY SUCCESSFUL SPS BURN. HERE IN MISSION CONTROL CENTER, WE ARE PRESENTLY GOING THROUGH THE CHANGE OF SHIFT. FLIGHT DIRECTOR GENE KRANZ WILL BE REPLACING GLENN LUNNEY ON THE CONSOLE AND WE WOULD LIKE TO ADVISE THAT THE BEST ESTIMATE ON THE CHANGE OF SHIFT NEWS BRIEFING WILL BE 3:30 PM. THAT WILL BE IN THE BUILDING 1 PRESS CENTER. AT 76 HOURS 55 MINUTES INTO THE FLIGHT, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 770420 (CDT 3:07P) 268/1

PAO THIS APOLLO CONTROL AT 77 HOURS,
4 MINUTES INTO THE FLIGHT. THE SPACECRAFT IS JUST PASSED
OVER THE SOUTHERN TIP OF AFRICA AND IS MOVING TOWARD THE
TANANARIVE TRACKING STATION IN THE MIDDLE OF THE NIGHT SIDE
PASS. WE'LL STAND BY FOR CAP COM RON EVANS TO PUT IN A
CALL INTO THE CREW.

CAPCOM APOLLO 7, HOUSTON, TANANARIVE STANDING
BY.

SC ROGER, GO AHEAD.

CAPCOM ROGER.

SC GOOD AFTERNOON RON.

CAPCOM YEH, WATCHED THE TAIL END OF YOUR BURN
THERE, IT LOOKED REAL GOOD.

SC PERFECT.

CAPCOM APOLLO 7, HOUSTON. ABOUT 1 MINUTE TILL
LOS. WE'LL HAVE YOUR BLOCK DATA AT HAWAII.

PAO THIS IS MISSION CONTROL. WE'VE HAD
A LOSS OF SIGNAL AT TANANARIVE ON THAT RATHER QUIET PASS.
THE NEXT STATION TO ACQUIRE THE SPACECRAFT WILL BE THE
TRACKING SHIP MERCURY IN ABOUT 20 MINUTES. THIS IS APOLLO
CONTROL AT 77 HOURS 12 MINUTES INTO THE FLIGHT.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 773020 (CDT 3:30P) 269/1

PAO THIS IS APOLLO CONTROL AT 77 HOURS
30 MINUTES INTO THE FLIGHT. THE SPACECRAFT HAS JUST BEEN
ACQUIRED BY THE MERCURY TRACKING SHIP. HOWEVER, WE'VE BEEN
ADVISED THAT WE PROBABLY WILL NOT HAVE VOICE COMMUNICATIONS
ON THIS PASS OVER THE MERCURY. THE SHIP IS HAVING TROUBLE
WITH THE ANTENNA USED TO RELAY COMMUNICATIONS VIA THE
SATELLITE. NOW WE DO HAVE OVERLAPPING COVERAGE ON THIS PASS
WITH THE TRACKING STATION AT GUAM AND WE'LL BE STAND BY FOR
CAP COM RON EVANS TO PUT IN A CALL TO THE CREW AS THE SPACE-
CRAFT APPROACHES GUAM.

CAPCOM APOLLO 7, HOUSTON.

SC GO AHEAD, RON.

CAPCOM ROGER. I HAVE YOUR BLOCK DATA IN
NUMBER 9 TO GIVE YOU.

SC READY TO COPY.

CAPCOM ROGER. 051 DASH 3-BRAVO PLUS 308 PLUS
1380. 080 PLUS 23 PLUS 36 - 2420 - 052 DASH 3-BRAVO PLUS 308
PLUS 1380. 082 PLUS 00 PLUS 15 - 3731. 053 DASH 3-ALPHA
PLUS 266 PLUS 1370. 083 PLUS 36 PLUS 27 - 4280. 054 DASH
ALPHA-CHARLIE. MINUS 069, MINUS 0150 - 084 PLUS 22 PLUS 07 -
4400.

SC WANT US TO REPEAT THAT?

CAPCOM NEGATIVE, OUTPUT ON ME. I'LL START AGAIN
WITH 055 NOW. 055 DASH ALPHA-CHARLIE PLUS 026 MINUS 0220.
085 PLUS 55 PLUS 07 - 3988. 056 DASH ALPHA-CHARLIE PLUS 118
MINUS 0300. 087 PLUS 28 PLUS 31 - 3674, OVER.

SC ROGER, READ THAT. 051 DASH 3-BRAVO
PLUS 308 PLUS 1380. 080 PLUS 23 PLUS 36 - 2420. 052 DASH
3-BRAVO PLUS 308 PLUS 1380. 082 TO 00, 15 - 3731. 053 3-ALPHA
PLUS 266 PLUS 1370. 083 TO 36 TO 27 -4280. 054 ALPHA-CHARLIE
MINUS 0690 MINUS 0150. 084, 22, 07 - 4400. 055 ALPHA-CHARLIE
PLUS 026 MINUS 0220. 085, 55, 07 - 3988. 056 ALPHA-CHARLIE
PLUS 118 MINUS 0300. 087, 28, 31 -3674, OVER.

CAPCOM APOLLO 7, HOUSTON, YOU READ BACK CORRECT.

SC GO AHEAD, RON.

CAPCOM APOLLO 7, HOUSTON, LET'S CHECK THE ONE
ON FIFTY-FIRST REV. THE DELTA-VC SHOULD BE 3420.

SC ON 051 3-BRAVO.

CAPCOM ROGER, ON 051 3-BRAVO.

SC 342 ON 51 REV, ROGER.

CAPCOM ROGER, JUST ABOUT LOS. WE WOULD LIKE
TO START BATTERY B CHARGING OVER HAWAII AFTER WE PICK UP DATA.

SC ACROSS.

PAO THIS IS APOLLO CONTROL WE HAD LOSS OF
SIGNAL FROM GUAM. DURING THAT PASS THE GROUND PASSED UP TO

APOLLO 7 COMMENTARY, 10/14/68, GET: 773020(CDT 3:30P) 269/2

SPACECRAFT INFORMATION WHICH THE CREW WOULD USE FOR REV 51 THROUGH 56 IN THE EVENT A CONTINGENCY SITUATION DEVELOPED REQUIRING RE-ORBIT AND SPACECRAFT GOES OUT OF TOUCH WITH GROUND STATIONS. THIS IS A ROUTINE BLOCK UPDATE WHICH IS PASSED UP REGULARLY TO THE CREW. THEY WERE ALSO ADVISED TO BEGIN RECHARGING BATTERY B. THIS WOULD BE TO REPLACE ELECTRICAL ENERGY REMOVED FROM THAT BATTERY DURING THE SPS BURN SOME 2 HOURS AGO. THIS IS APOLLO CONTROL AT 77 HOURS 39 MINUTES INTO THE MISSION.

END OF TAPE

PAO THIS IS APOLLO CONTROL AT 78 HOURS
25 MINUTES INTO THE FLIGHT. WE'VE HAD A RELATIVELY QUIET
PERIOD OF TIME HERE IN THE CONTROL CENTER SINCE THE PRESS
CONFERENCE BEGAN. THE SPACECRAFT COMPLETED A PASS OVER THE
HAWAII, HUNTSVILLE, GUAYMAS. AND WE HAVE A SMALL AMOUNT OF
CONVERSATION WITH THE CREW THAT DEVELOPED DURING THOSE PASSES
THAT WE'LL PLAY BACK FOR YOU NOW.

CAPCOM APOLLO 7, HOUSTON THROUGH HAWAII.

SC ROGER.

CAPCOM ROGER, WE HAVE DATA YOU CAN COMMENCE
THAT B CHARGE ANY TIME.

SC ROGER, COMMENCING NOW. IS THERE ANY-
THING IN PARTICULAR YOU'RE OBSERVING THERE FOR VOLTAGE CHARGE.

CAPCOM OKAY. APOLLO 7, HOUSTON, WE JUST WANT
TO LOOK AT THE VOLTAGE AND THE CURRENT. WE WOULD ALSO LIKE
TO GET YOUR ONBOARD READING OF THE CURRENT WHEN YOU START IT
UP.

SC ROGER, IT'S KIND OF INTERESTING. THE
CHARGER IS SHOWING EC AMPS AT ZERO.

CAPCOM THAT IS INTERESTING.

SC WOULDN'T BE DEFECTIVE, IS IT?

CAPCOM NOT QUITE.

SC NOW WE'RE ON BATTERY B, IT'S SHOWING
2.2 AMPS. (GARBLED)

CAPCOM I DON'T WANT A KEY HOLE NOW, WALT, I
CAN'T COMPARE IT.

SC GO AHEAD.

CAPCOM I WANT A KEY HOLE OVER HAWAII. WE
CAN'T COMPARE IT. WE'LL PICK UP DATA HERE SHORTLY.

SC OKAY. I WAS PRETTY SURE THE VOLTS
GIVE WAY TWO LIGHT AMPS.

CAPCOM ROGER.

CAPCOM WALT, WE'RE SHOWING THE 2.18 AMPS NOW
AND 37.4 VOLTS.

HTV HUNTSVILLE, TWO ALONG EVALUATE RANGE.

CAPCOM APOLLO 7, HOUSTON.

CAPCOM APOLLO 7, HOUSTON, ABOUT 1 MINUTE TILL
LOS.

SC ROGER, WE CAN PRODUCTION NOW ON
IMPERIAL PHOTOGRAPHY.

CAPCOM ROGER.

SC WE'RE TRYING TO SHOW JUST HOW MOBILE
YOU CAN BE INSIDE OF THIS THING.

CAPCOM VERY GOOD. WALT, FOR YOUR INFORMATION
THERE THE CUT-OFF ON THAT CHARGE WILL BE .4 AMPS OR AMP
HOURS REPLACED.

APOLLO 7 COMMENTARY, 10/14/68, GET: 782500 (CDT: 4:30P) 270/2

SC I UNDERSTAND SOUNDS LIKE TRY TO GET TO
4.4 AMPS FIRST OR LOOK FOR AMP HOURS, RIGHT?

CAPCOM ROGER.

PAO THIS IS APOLLO CONTROL. THE SPACECRAFT
~~IS NOW ORBITING OUT~~ ACROSS THE SOUTH ATLANTIC TOWARD SOUTHERN
TIP OF THE AFRICAN CONTINENT. AND WE EXPECT ACQUISITION WITH
THE TANANARIVE TRACKING STATION ABOUT 8 OR 9 MINUTES FROM
NOW. THIS IS APOLLO CONTROL AT 78 HOURS 30 MINUTES INTO THE
FLIGHT.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 784040 (CDT 4:45P) 271/1

PAO THIS IS APOLLO CONTROL AT 78 HOURS 41 MIN-
UTES. CAPCOM, RON EVANS, HAS JUST PUT IN A CALL TO THE CREW
FROM THE TANANARIVE TRACKING STATION AND WE WILL STAND BY
FOR ANY CONVERSATION THERE.

PAO THIS IS MISSION CONTROL. IT DOESN'T
APPEAR THAT WE ARE GOING TO HAVE ANY CONVERSATION WITH THE
CREW ON THIS PASS OVER TANANARIVE. THINGS HAVE BEEN VERY
QUIET ON THIS SHIFT SINCE FLIGHT DIRECTOR GENE KRANZ TOOK
OVER. ACTIVITIES INVOLVE MAINLY WITH EACH OF THE INDIVIDUAL
FLIGHT CONTROLLERS REVIEWING THE SYSTEMS HE IS RESPONSIBLE
FOR ON THE SPACECRAFT AND REPORTING TO THE FLIGHT DIRECTOR.
AND WE MIGHT ADD, THAT ALL THOSE SYSTEMS APPEAR TO BE
FUNCTIONING VERY WELL AT THIS TIME. THIS IS APOLLO CONTROL
AT 78 HOURS 45 MINUTES INTO THE FLIGHT. WE WILL PICK UP
NEXT AT THE TRACKING SHIP MERCURY.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 790140 (CDT 5:05P) 272/1

PAO THIS IS APOLLO CONTROL AT 79 HOURS
2 MINUTES. WE'RE COMING UP NOW ON THE TRACKING SHIP MERCURY.
WE DO EXPECT TO HAVE COMMUNICATION WITH THE CREW ON THIS PASS
OVER THE MERCURY, AND WE'LL HAVE SOME OVERLAPPING COVERAGE
FROM GUAM. WE'LL STAND BY AS WE WAIT FOR CAP COM RON EVANS TO
PUT IN A CALL TO THE CREW.

CAPCOM APOLLO 7, HOUSTON, MERCURY.
SC HOUSTON, APOLLO 7, DO YOU READ?
HOUSTON, APOLLO 7, OVER.

CAPCOM APOLLO 7, HOUSTON. ROGER, WE READ YOU
AND WE REQUEST YOUR BATTERY CHARGER CURRENT?

SC THAT CAN WAIT. WE HAD ANOTHER PROBLEM
WHEN WE LEFT YOU AWHILE AGO. WE COULD HEAR YOU CALL US OVER
TANANARIVE, BUT WE COULDN'T RAISE YOU. THE SPS BURN LEFT A LARGE
PUDDLE OF WATER ON THE AFT BULKHEAD. AT FIRST WE WERE VERY
CONCERNED ABOUT WHETHER IT WAS WATER GLYCOL OR WATER WE'RE PRETTY
SURE IT WAS REPLACE WATER. WE CHECKED FURTHER AND DISCOVERED THAT
IT WAS UNDERNEATH THE TWO PAD. SINCE THAT TIME WE MOPPED IT UP USING
THE WATER HOSE ELECTRICAL SYSTEM. THE WATER CAME FROM THE
COOLANT LINES THAT WE USED TO USE AND THE WATER COOLANT LINES
AND ITS CONDENSATION. WE TOOK A FOLLOW-UP AND THE SMALL PERFORATOR
PANEL TO DETERMINE HOW TO WORK THE PROBLEM. HOUSTON, APOLLO.

CAPCOM ROGER, WE COPIED PART OF THAT I THINK,
WALT. LOOKS LIKE YOU'VE GOT WATER ON YOUR AFT BULKHEAD AND
IT CAME FROM THE WATER COOLANT LINE. I'M NOT SURE OF YOUR
CONDITION AT THE PRESENT TIME, IF IT'S STILL COMING IN OR
NOT.

SC IT'S ALL MOPPED UP. IT'S CONDENSATE
WATER WE'RE POSITIVE. IT WILL PROBABLY OCCUR AGAIN. WE FEED
A FULL STORY ON THE TAPE TO THE DUMP. ROGER, GO AHEAD.

CAPCOM ROGER, I UNDERSTAND IT'S ALL ON THE
VOICE TAPE FOR THE DUMP ALSO.

SC RIGHT, AND THE BATTERY CHARGE OCCURRED.
I'M SHOWING ABOUT .6 AMPS. LOOKED TO ME LIKE IT JUMPED UP
REAL FAST HERE AND THEN TOOK A LONG TIME ON THE PLATEAU.

CAPCOM ROGER, WE CONCUR. WE'RE READING .55
NOW, WALT.

SC OKAY, I'LL LET YOU TAKE THE EGB POSTED
BECAUSE I NEVER GOT BELOW .5 LAST TIME AND YOU GOT DOWN TO
ABOUT .41.

CAPCOM ROGER, WE UNDERSTAND. WE'RE ESTIMATING
ABOUT 10 HOURS TO GET DOWN TO .41.

SC OKAY, WHY DON'T YOU AND THE REST OF THE
GANG HAVE A DRINK FOR US TO CELEBRATE DONN AND MY FIFTH
ANNIVERSARY IN THE PROGRAM TODAY.

CAPCOM HEY, GREAT BY GOLLY WILL DO.

APOLLO 7 COMMENTARY, 10/14/68, GET: 790140 (CDT 5:05P) 272/2

SC AT THIS RATE I'LL BE AN OLD MAN BY MY SECOND FLIGHT.

CAPCOM WALT, WE COULD ALSO USE YOUR SERVICE MODULE RCS QUANTITY READINGS, AND THEN WE WILL CORRECT THEM FOR YOU.

CAPCOM ROGER, I'LL GIVE TO YOU. WE HAVEN'T BEEN TOO CONCERNED WITH ONBOARD READ-OUTS, SINCE WE'RE GOING WITH YOUR QUANTITIES.

CAPCOM ROGER.

SC THE 54 RCS-B IS READING - WELL THE SAME AS IT WAS. RCS-B IS READING 60. (GARBLED) B IS READING 65, OVER.

CAPCOM ROGER, SAY AGAIN CHARLIE.

SC ROGER, CHARLIE IS READING 60.

CAPCOM ROGER, 54 NOTHING OR 93, AND 60 AND 65.

SC ROGER, WE HAVE IT. I THINK WE'D BE INTERESTED IN GS QUANTITIES FOR EACH OF OUR QUAD.

CAPCOM ALRIGHT, WE'LL WORK IT OUT AND SEND IT BACK.

SC AND I DON'T THINK WE EVER GOT A TOTAL QUANTITY FOR OUR HOW GOES IT THROUGH A NUMBERS ON MY RCS PROFILE AS I CARRY IN MY CHECKLIST.

CAPCOM ROGER, WE'RE LOOKING UP ON ALL THAT. AND WE'VE GOT A STATUS COMING UP TO YOU. IT'LL BE COMING UP A LITTLE LATER.

SC WE THANK YOU. AND WE HAVE OUR OWN ESTIMATE OF THE NEW SERVICE MODULE RCS RED LINE. INTERESTING TO SEE WHAT YOU GUYS COME UP WITH.

CAPCOM ROGER. WALLY, YOU MIGHT LIKE TO KNOW THAT PARTIES OR HARNESSSES BECOME DISCONNECTED AGAIN. WE DON'T READ THE HEART RATE DOWN THERE.

SC OH.

PAO THIS IS APOLLO CONTROL. THE SPACECRAFT HAS APPARENTLY GONE OVER THE HORIZON FROM THE TRACKING SHIP MERCURY, AND WE NEVER DID ACQUIRE FROM THE GUAM STATION. AS YOU HEARD ASTRONAUT WALT CUNNINGHAM REPORTED TO THE GROUND WHAT HE CHARACTERIZED AS A MINOR PROBLEM. HE REPORTED A PUDDLE OF WATER HAD COLLECTED ON THE SPACECRAFT AFT BULKHEAD. HE SAID IT HAD APPARENTLY HAD CONDENSED OFF THE RELATIVELY COOL ENVIRONMENTAL CONTROL WATER COOLANT LINES AND HAD CONDENSED OUT INTO THE FORM OF A PUDDLE. AND THEY REPORTED THAT THEY MOPPED IT UP. CUNNINGHAM ALSO AS YOU HEARD REPORTED THAT TODAY IS THE FIFTH ANNIVERSARY FOR HIMSELF AND ASTRONAUT DONN EISELE WITH THE SPACE PROGRAM. WE'LL NEXT ACQUIRE THE SPACECRAFT PERHAPS AT HAWAII. THAT WILL BE A VERY LOW ELEVATION

APOLLO 7 COMMENTARY, 10/14/68, GET: 790140 (CDT 5:05P) 272/3

PASS IF WE ACQUIRE AT ALL AS THE SPACECRAFT MOVES SOUTH OF
THE HAWAIIAN ISLANDS AND THEN MOVE DOWN OVER THE TRACKING
SHIP REDSTONE. THIS IS APOLLO CONTROL AT 79 HOURS 11 MINUTES.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 792000 (CDT 5:25P) 273/1

PAO THIS IS APOLLO CONTROL AT 79 HOURS 20 MINUTES, THE SPACECRAFT WILL BE ACQUIRED BY HAWAII SHORTLY, AND WE'LL STAND BY FOR ANY CONVERSATIONS THAT DEVELOP WITH THE CREW ON THIS PASS.

CAPCOM APOLLO 7, HOUSTON. OPPOSITE OMNI.

CAPCOM APOLLO 7, HOUSTON.

SC ROGER, OPPOSITE OMNI.

CAPCOM ROGER, WALT WE'D LIKE TO REQUEST 02 TANK ONE FANS ON FOR ABOUT FIVE MINUTES NOW, THEN OFF.

SC ROGER, TANK ONE FANS ON.

CAPCOM IF YOU GET A CHANCE, LOOK DOWN ON THE GROUND THERE YOU MIGHT BE ABLE TO SEE A BIG FIRE.

SC WHERE AT?

CAPCOM YOU MAY NOT SEE IT TELL THE NEXT PASS, IT'S OVER IN HAWAII.

SC ROGER.

SC YOU SAY THAT BIG FIRE IS TO THE WEST?

CAPCOM YEA, THAT'S AFFIRMATIVE, WE'LL TRY TO GIVE YOU SOME POINTING DATA FOR THE NEXT PASS OVER.

SC THANK YOU.

CAPCOM HUNTSVILLE TWO WAY LOG, DOWN LINK WEAK, TO WEAK FOR VALID RANGE.

CAPCOM HUNTSVILLE TWO WAY LOG, VALID RANGE.

SC HOUSTON, APOLLO 7.

CAPCOM HOUSTON GO.

SC ROGER, WE ALSO JUST DISCOVERED WATER COMING OUT OF OUR BLUE HOSES, AT LEAST THE ONE IN THE CENTER COUCH, I HAVEN'T CHECKED THE OTHER THREE YET, BUT WE'VE GOT QUITE A BIT OF VISIBLE MOISTURE FLOWING OUT OF IT.

CAPCOM ROGER, COMING OUT OF THE BLUE 02 HOSE, IS THAT WHAT YOU SAID?

SC AFFIRMATIVE, AND WE'VE TEMPORARILY TURNED OFF THE TEMPERATURE PRESSURE SO WE COULD CLEAN UP - CLEAN IT UP.

CAPCOM ROGER.

SC I KNOW THERE'S GOING TO BE A PROBLEM HERE, I ONLY WISH IT WAS A PROBLEM.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 793000 (CDT 5:35P) 274/1

HTV HUNTSVILLE LOS.

PAO WELL, WE HAVE HAD LOSS OF SIGNAL. NOW FROM THE HUNTSVILLE. YOU HEARD THE CREW ADVISE THAT THEY HAVE WATER COMING OUT ONE OF THE OXYGEN HOSES AND HAVE TURNED OFF THE SUIT COMPRESSOR WHICH APPARENTLY HAS STOPPED THE FLOW AND IS ALLOWING THEM TO CLEAN IT UP. WE HAVE NO FURTHER EVALUATION AT THIS TIME. FLIGHT DIRECTOR GENE KRANZ IS DISCUSSING THE SITUATION WITH THE FLIGHT CONTROLLERS. IT DOESN'T APPEAR TO BE A SERIOUS PROBLEM, HOWEVER, AT THIS POINT. OUR NEXT PASS WILL BE OVER THE TANANARIVE TRACKING STATION. WE ARE SCHEDULED TO ACQUIRE THERE AT 80 HOURS 12 MINUTES AND WE WILL PICK UP THE PASS AT THAT POINT. THIS IS APOLLO CONTROL AT 79 HOURS 33 MINUTES INTO THE FLIGHT.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 793730 (CDT 5:40P) 275/1

PAO THIS IS APOLLO CONTROL, 79 HOURS 37 MINUTES. WE HAVE A FEW MORE DETAILS ON THE SITUATION WHICH WALT CUNNINGHAM REPORTED TO THE GROUND A SHORT WHILE AGO CONCERNING WATER COMING FROM ONE OF THE OXYGEN HOSES, AND FORMING A PUDDLE ON THE FLOOR OF THE SPACECRAFT. APPARENTLY THIS IS THE SAME NATURE OF PROBLEM AS WE NOTED A SHORT WHILE EARLIER, AND THAT IS MOISTURE IN THE CABIN CONDENSING OFF COOL SURFACES AND FORMING PUDDLES ON THE FLOOR. THE PRIMARY CONCERN IS THE INCONVENIENCE IT CAUSES THE CREW RATHER THAN ANY SIGNIFICANT PROBLEMS WITH THE SPACECRAFT, ITSELF. WE DO HAVE A HUMIDITY SURVEY COMING UP ON THE FLIGHT PLAN SHORTLY, AND THIS WOULD GIVE SOME INDICATION OF WHAT THE HUMIDITY IS IN THE CABIN. HOWEVER, FLIGHT DIRECTOR, GENE KRANZ, ADVISES THAT THE HUMIDITY IN THE CABIN HAS BEEN RUNNING WELL WITHIN THE COMFORT LEVEL AND APPARENTLY THE CONDENSATION IS A PROCESS THAT OCCURS WHEN MOISTURE, WHICH IS NATURALLY IN THE AIR AND THE ATMOSPHERE OF THE CABIN, COMES IN CONTACT WITH EXPOSED COOL SURFACES. WE WILL CONTINUE TO FOLLOW THE SITUATION AND ADVISE IF ANY FURTHER DEVELOPMENTS RELEVANT TO IT OCCUR. THIS IS APOLLO CONTROL AT 79 HOURS 39 MINUTES.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 801330 (CDT 6:15P) 276/1

PAO THIS IS APOLLO CONTROL AT 80 HOURS 14 MINUTES. THE SPACECRAFT IS ABOUT TO COME INTO RANGE OF THE TANANARIVE TRACKING STATION AND WE WILL PICK UP ANY CONVERSATIONS THAT COME OUT OF THIS PASS OVER TANANARIVE.

CAPCOM APOLLO 7, HOUSTON. (PAUSE) APOLLO 7, HOUSTON THROUGH TANANARIVE.

SC ROGER, WE CAN SLIDE BY ONE.

CAPCOM ROGER. WE SURE COULD USE YOUR BATTERY MANIFOLD PRESSURE - SYSTEMS TEST 4A.

SC WE READ THE TEMPERATURE ABOUT A HALF AN HOUR AGO WHEN WE USED IT TO DUMP SOMETHING AND IT STAYED 1.4 UNTIL YOU OPENED THE VENT AND WHEN YOU OPENED THE VENT IT READS ABOUT POINT FIVE.

CAPCOM ROGER.

SC READ? DID YOU READ THAT, RON?

CAPCOM APOLLO 7, HOUSTON. ROGER, READ ONE POINT FOUR AND ZERO POINT FIVE WHEN YOU OPENED THE VENT.

SC ROGER, AND WE CHECKED OUR LITHIUM HYDROXIDE CANISTERS. THEY ARE DRY. WE HAVE CHECKED THE SUIT CIRCUIT WATER (GARBLED) AND IT'S FUNCTIONING IN AUTO 1 AND AUTO 2. IT'S REMAINING IN AUTO 2.

CAPCOM ROGER. HAVE YOU COME TO ANY SPECIFIC POINT IN THE MALFUNCTION PROCEDURES?

SC NOT YET.

CAPCOM APOLLO 7, HOUSTON. (PAUSE) APOLLO 7, HOUSTON.

SC GO.

CAPCOM ROGER. LOOKS LIKE OUR BATTERY IS CHARGING CURRENT DECREASING A LITTLE FASTER THAN PREDICTED AND WE WOULD LIKE YOUR ONBOARD READING.

SC ROGER. I AM READING POINT 5 AMPS.

CAPCOM ROGER. POINT 5. WE WILL KEEP YOU ADVISED ON IT. WALT, THAT VOLCANO SHOULD BE ABOUT 30 DEGREES DOWN AND 20 DEGREES LEFT OF LOCAL VERTICAL AT 80 PLUS 57.

SC 80 PLUS 57 AND 30 DEGREES DOWN AND 20 DEGREES LEFT.

CAPCOM ROGER. LOCAL--

SC GARBLED

CAPCOM ROGER, 30 DEGREES LEFT, 20 DOWN AND 30 LEFT. NOW BELAY THAT. 30 DEGREES DOWN AND 20 LEFT OF LOCAL VERTICAL.

SC 30 DOWN AND 20 LEFT AND 80 HOURS 57 MINUTES.

CAPCOM AFFIRMATIVE. (PAUSE) APOLLO 7, HOUSTON.

APOLLO 7 COMMENTARY, 10/14/68, GET: 801330 (CDT 6:15P) 276/2

CAPCOM ONE MINUTE LOS. MERCURY AT 35.
SC ROGER, MERCURY 35.
PAO WE HAVE HAD LOSS OF SIGNAL NOW FROM
TANANARIVE. THE NEXT STATION TO ACQUIRE THE SPACECRAFT WILL
BE THE TRACKING SHIP MERCURY AND WE EXPECT ACQUISITION THERE
IN ABOUT 16 MINUTES. THIS IS APOLLO CONTROL AT 80 HOURS
21 MINUTES.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 803630 (CDT 6:40P) 277/1

PAO THIS IS APOLLO CONTROL, AT 80 HOURS
36 MINUTES. THE SPACECRAFT WILL BE COMING WITHIN RANGE
OF THE TRACKING SHIP MERCURY, AND WE'RE STANDING BY FOR A
CALL FROM CAPCOM RON EVANS TO THE CREW.
CAPCOM ROGER, I'LL HAVE FLIGHT PLAN UPDATE FOR
YOU IN 1 MINUTE.
SC (GARBLE)
CAPCOM ROGER. 82 PLUS 00; FUEL CELL OXYGEN
PURGE.
SC ROGER, WE READ YOU, RON.
CAPCOM ROGER.
SC (GARBLE) OCCURING AT VOLCANO 8057.
CAPCOM ROGER, VOLCANO TIME 80 PLUS 57.
SC ROGER
CAPCOM APOLLO 7, HOUSTON. BASED ON THE TREND,
IT LOOKS LIKE WE'LL TERMINATE THAT B CHARGE, PROBABLY OVER
HAWAII.
SC ROGER.
SC WE ARE STILL GETTING WATER OUT OF OUR
THREE HOSES.
CAPCOM ROGER, I UNDERSTAND.
CAPCOM WALLY, IS THERE ANYWAY YOU CAN MAYBE GIVE
US AN ESTIMATE OF HOW MUCH WATER IS COMING OUT THERE?
SC RON, THE FIRST TIME WE (GARBLE) OUT OF
THERE, ABOUT A SPOONFUL FROM THE CENTER ONE, AND WE WERE
GETTING ABOUT 6 TEASPOONFULS - WE'RE GETTING ABOUT HALF OF
THAT OUT OF THE LEFT ONE AND JUST A LITTLE MOISTURE OUT OF
THE RIGHT ONE.
CAPCOM ROGER, COPY.
CAPCOM APOLLO 7, HOUSTON. WHILE WE'RE AT IT,
ANY ESTIMATE ON THE QUANTITY THAT WAS ON THE BULKHEAD.
SC YEAH, PLENTY. QUITE A LARGE AMOUNT.
CAPCOM YEAH, I'D SAY SO.
CAPCOM APOLLO 7, HOUSTON. REQUEST BIOMED TO
POSITION THREE.
SC ROGER.
CAPCOM 30 SECONDS LOS, HAWAII AT 53.
SC HAWAII 53. WHAT ISLANDS ARE WE GOING
BY?
CAPCOM ROGER, BE GOING SOUTH OF THE BIG ISLANDS.
SC ROGER.
PAO THIS IS MISSION CONTROL. WE'VE HAD LOSS
OF SIGNAL NOW FROM THE MERCURY. YOU HEARD WALLY SCHIRRA,
AGAIN MENTION THE PROBLEM WITH MOISTURE COMING FROM THE
OXYGEN HOSES FROM THE SUIT SUPPLY. THE INITIAL ASSESSMENT
ON THAT MOISTURE FROM CUNNINGHAM WAS THAT IT WAS CONDENSATE,
AND THE FEELING HERE IN MISSION CONTROL CENTER IS THAT IT
DOES REPRESENT CONDENSATION RATHER THAN ANY LEAK FROM THE
SPACECRAFT. THE CREW WAS ADVISED THAT THEY WILL BE IN GOOD

APOLLO 7 COMMENTARY, 10/14/68, GET: 803630 (CDT 6:40P) 277/2

PAO POSITION TO VIEW THE VOLCANO ERUPTING
ON HAWAII. NOW THAT IS THE VOLCANO KILAUEA AND I DON'T VOUCH
FOR THAT PRONUNCIATION. THEY WILL BE COMING UP WITHIN - UH
WITHIN RANGE OF THE VOLCANO APPROXIMATELY 80 HOURS 57 MINUTES
ELAPSED TIME AND IT'S PREDICTED THEY WILL HAVE A CLEAR VIEW
OF THE AREA. THIS IS APOLLO CONTROL AT 80 HOURS 45 MINUTES.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 805430 (CDT 7:00P) 278/1

PAO THIS IS APOLLO CONTROL, 80 HOURS 54
MINUTES, WE'VE JUST ACQUIRED THE SPACECRAFT FROM HAWAII AND
WE'LL STAND BY FOR ANY COMMENTS FROM THE CREW OR CONVERSA-
TION ON THIS PASS.
CAPCOM APOLLO 7, HOUSTON, HAWAII, VIA S-BAND.
CAPCOM APOLLO 7, HOUSTON. HAWAII M&O VHF FOR
A BIT.
CAPCOM APOLLO 7, HOUSTON.
SC ROGER.
CAPCOM ROGER, S-BAND VOLUME UP.
SC ROGER, ON S-BAND.
CAPCOM ROGER, HAWAII OF M&O VHF OFF NOW.
CAPCOM WE'RE STANDING BY THIS PASS.
CAPCOM APOLLO 7, HOUSTON, I RECOMMEND TERMINATE
BATTERY CHARGING ON B.
SC ROGER, TERMINATE. I'D LIKE TO GET A
REPORT FROM YOU ON HOW MUCH WE HAVE IN B IF YOU GET A
CHANCE AND ALSO A.
CAPCOM WELCO.
SC ROGER, WE GOT A GOOD SWEEP DOWN THE
ENTIRE CHAIN. THE BIG ISLAND ITSELF IS PRETTY WELL CLOB-
BERED WITH CLOUDS AND YOU DON'T ACTUALLY SEE KILAUEA.
CAPCOM ROG, THAT'S A HECK OF A NOTE.
SC IT'S THE CLEAREST WE'VE EVER SEEN IT
OUT HERE OVER HAWAII THOUGH, WE GOT VERY NICE PICTURES OF
THE ENTIRE CHAIN, WE TOOK THEM, BUT WE DON'T KNOW HOW GOOD
THEY ARE.
CAPCOM ROGER.
CAPCOM APOLLO 7, HOUSTON, 30 SECONDS LOS,
MERCURY AT 82 PLUS 10.
SC ROGER, MERCURY AT 82 PLUS 10.
SC HOUSTON, THIS IS APOLLO 7.
CAPCOM GO.
SC HOUSTON FROM APOLLO 7.
CAPCOM SAY AGAIN.
SC GARBLE.
CAPCOM GO.
PAO WE HAVE LOSE OF SIGNAL NOW, FROM HAWAII.
THE CREW ADVISED ON THAT PASS THAT THEY WERE NOT ABLE TO
OBSERVE KILAUEA, WHICH IS ERUPTING AT THIS TIME. THEY SAID
THEY DID GET A GOOD VIEW OF THE ENTIRE HAWAIIAN CHAIN
HOWEVER AND REPORTED THAT WEATHER IN THAT AREA WAS UNUSUALLY
CLEAR ALTHOUGH THE MAIN ISLAND OF HAWAII WAS APPARENTLY
CLOUDED OVER, BLOCKING THEIR VIEW OF THE VOLCANO THERE.
WE HAVE A VERY LONG PASS - DRY PERIOD NOW BEFORE WE COME
UPON ANOTHER STATION WITH VOICE COMMUNICATION, THAT WILL BE
THE TRACKING SHIP MERCURY ALMOST A FULL REV FROM HAWAII
HERE, WE'LL ACQUIRE MERCURY AT 82 HOURS AND 10 MINUTES

APOLLO 7 COMMENTARY, 10/14/68, GET: 805430 (CDT 7:00P) 278/2

PAO GROUND ELAPSED TIME. THIS IS ONE OF
THE QUIETEST PASSES DURING A - THE DAYS OPERATIONS WHEN THE
SPACECRAFT IS PASSING DOWN OVER THE SOUTHERN PART OF THE
WESTERN HEMISPHERE AND MISSING A LARGE PART OF THE GROUND
STATIONS. AT 81 HOURS 2 MINUTES, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 813930 (CDT 7:40P) 279/1

PAO THIS IS APOLLO CONTROL AT 81 HOURS 39 MINUTES. AT PRESENT TIME THE SPACECRAFT IS APPROACHING THE SOUTHWESTERN COAST OF AFRICA, ON WHAT WILL BE ONE OF THE REVOLUTIONS WITH THE SMALLEST NUMBER OF CONTACTS WITH GROUND STATIONS DURING THE DAY. WE WILL GO FROM THE STATION AT HAWAII ALL THE WAY BACK AROUND THE TRACKING SHIP MERCURY OFF - BETWEEN JAPAN AND THE PHILLIPINE ISLANDS IN THE PACIFIC OCEAN BEFORE WE EXPECT TO ACQUIRE AGAIN. WE WILL BE PASSING NORTH OF THE TANANARIVE STATION, BUT I DO NOT EXPECT THAT WE WILL BE WITHIN RANGE TO ACQUIRE AT THAT STATION. AT THE PRESENT TIME THE PLOTBOARDS HERE IN THE CONTROL CENTER SHOW THE S-IVB THE SECOND STAGE OF THE LAUNCH VEHICLE TO BE LEADING THE COMMAND SERVICE MODULE BY APPROXIMATELY 1200 MILES. THE S-IVB AT LAST REPORT WAS IN ORBIT 116 NAUTICAL MILES BY 147 NAUTICAL MILES AS COMPARES WITH THE ORBIT FOR THE COMMAND AND SERVICE MODULE OF 160 BY 90 NAUTICAL MILES. WE WILL BE ACQUIRING THE TRACKING SHIP MERCURY AT AN ELAPSED TIME OF 82 HOURS 10 MINUTES AND WE WILL BE FOLLOWING THE PROGRESS OF EVENTS HERE IN MISSION CONTROL CENTER UNTIL THAT TIME. AT WHICH TIME WE WILL COME UP TO FOLLOW ANY CONVERSATIONS BETWEEN FLIGHT CONTROLLERS HERE IN THE CENTER AND THE SPACECRAFT. THIS IS MISSION CONTROL AT 81 HOURS 41 MINUTES.

END OF TAPE

PAO THIS IS APOLLO CONTROL, 82 HOURS 11 MINUTES INTO THE FLIGHT. THE SPACECRAFT AT THE PRESENT TIME IS APPROACHING THE TRACKING SHIP MERCURY. COMING UP NEAR THE END OF A REVOLUTION WHICH HAS HAD VARIOUS FORCE GROUND COVERAGE. OUR LAST STATION TO BE IN TOUCH WITH THE SPACECRAFT WAS THE TRACKING STATION AT HAWAII, AND WE ARE PREPARING NOW TO PUT IN A CALL TO THE CREW FROM CAPCOM - OUR CAPCOM, RON EVANS, HERE IN THE CONTROL CENTER. WE'LL STAND BY FOR ANY CONVERSATION THAT DEVELOPS WITH THE CREW OVER THE TRACKING SHIP MERCURY.

CAPCOM APOLLO 7, HOUSTON THROUGH MERCURY.
SC ROGER (GARBLE)
CAPCOM ROGER, LOUD AND CLEAR.
SC WE JUST LEFT HAWAII.
SC I ENDED UP WITH A FOULED SWITCH IN THE NUMBER 2 HAND CONTROLLER IN PITCH DOWN. WE DISCOVERED IT IN ACCELERATION COMMAND. I WILL TROUBLESHOOT IT WHEN WE GET THE COMPUTER BACK ON THE LINE AFTER WE POWER UP.
CAPCOM ROGER, A LOT OF STATIC, WALLY, SAY IT AGAIN.
SC OKAY, OVER HAWAII JUST AS WE WENT BY THE BIG ISLANDS, THE NUMBER 2 HAND CONTROLLER FOULED IN THE PITCH-DOWN DIRECTION. IT ACCEL COMMAND AND PULSED.
CAPCOM ROGER, COPY.
SC I ONLY GOT ONE PULSE IN PITCH DOWN, BUT I GOT (GARBLE) PITCH DOWN COMMAND AND ACCEL COMMAND. I GOT TO TRYING TO TROUBLE SHOOT THAT. WE'LL TRY IT IN RATE COMMAND. SO I WILL TROUBLESHOOT THAT IN THE COMPUTER BULB WHEN WE POWER UP.
CAPCOM ROGER.
SC SAY, RON, DO YOU PLAN TO GIVE US A MAP UPDATE?
CAPCOM ROGER, STAND BY. I'LL GET YOU ONE.
SC OKAY, AND HAVE THE DOCTORS DONE ANY TALKING DOWN THERE ABOUT THE POSSIBILITY OF ONE OR ALL OF US HAVING A COLD AND STOPPED UP EARS FROM REENTRY.
CAPCOM ROG. THEY'VE BEEN THINKING ABOUT IT AND THEY WILL ADVISE.
SC OKAY, WE'VE GOT SOMETHING ONBOARD HERE IN A MEDICAL KIT CALLED ANTIBIOTIC. I WAS WONDERING IF WE OUGHT TO BE TAKING IT, OR WHAT? SO FAR, WALLY'S, I GUESS, ABOUT HOLDING HIS OWN ON HIS EARS. DONN MAY BE GETTING A LITTLE BIT WORSE AND I THINK MY EARS ARE STILL CLEARING UP FAIRLY WELL.
CAPCOM ROGER. I THINK BEFORE ANTIBIOTICS, THEY'RE CONCERNED ABOUT TEMPERATURE. OR DO YOU HAVE A TEMPERATURE, YOU KNOW, BEFORE YOU GO INTO THE ANTIBIOTICS.
SC I BELIEVE I'LL START WEARING THE ORAL

APOLLO 7 COMMENTARY, 10/14/68, GET: 801030 (CDT 8:15P) 280/2

SC THERMOMETER A LITTLE BIT AND SEE WHERE
I STAND, JUST FOR THE EXPERIENCE.
CAPCOM ROGER.
CAPCOM 7, HOUSTON.
SC GO AHEAD.
CAPCOM WASTE WATER DUMP. ROG. WE'D LIKE YOU TO PROCEED, WITH THE
SC ROGER. WE READ 80 PERCENT. WHAT DO
YOU SHOW?
CAPCOM ROG. WE READ 82.9.
SC ROG. WE'LL DUMP ALL WASTE AFTER WE LOS.
CAPCOM ROGER. AND ANY FURTHER WATER PROBLEMS
OUT OF THE WATER HOSES, THERE, OR ANY RESULTS OF THE HUMIDITY
SURVEY?
SC WE HAVEN'T HAD ANY MORE WATER COMING OUT
THE HOSES FOR ABOUT THE LAST 40 MINUTES AND WE'RE PRETTY CER-
TAIN THAT WHEN THE WATER TANK IS FULL, WATER BEGINS TO CON-
DENSE OUT.
CAPCOM ROGER.
SC (GARBLE) THE LAST WATER WE GOT OUT OF
HERE.
SC ROG. OUR LAST HUMIDITY READING. ARE
YOU READY TO COPY?
CAPCOM ROGER.
SC AT WALLY'S SUIT IN THE HOSE, (GARBLE)
WET AND DRY 540-66. THE UNIT TO THE CABIN HEAT EXCHANGER
58-68. AT THE CONDENSATE (GARBLE) WE HAVE A (GARBLE) OF 52.
THE WET BALL FOR THE AREA WAS 58. THE DRY BALL FOR THE AREA
WAS 73. OVER BY THE RIGHT-HAND WINDOW WE HAD 68-72, OVER.
CAPCOM ROGER, WE COPY.
CAPCOM 7, I HAVE YOUR MAP UPDATE.
SC ROGER.
CAPCOM REV 52, GET NODE, 81 PLUS 52 PLUS 02,
LONGITUDE 42.4 EAST RIGHT ASCENSION, 05 PLUS 19.
SC ROGER.
PAO THIS IS MISSION CONTROL. WE'VE HAD LOSS
OF SIGNAL NOW, FROM THE MERCURY. DURING THAT PASS WALTER
CUNNINGHAM REPORTED THAT THEY HAD A FAILED SWITCH IN THE
NUMBER 2 HAND CONTROLLER. THIS IS ONE OF TWO CONTROLLERS
USED TO CONTROL SPACECRAFT ATTITUDES, AND HE REPORTED THAT
THEY WOULD PLAN TO TROUBLESHOOT THIS THE NEXT TIME THEY HAVE
THE COMPUTER BACK UP ON THE LINE. THE COMPUTER, AT THE PRESENT
TIME, HAS BEEN POWERED DOWN. IT WAS POWERED DOWN AFTER THAT
SPS BURN THIS AFTERNOON. THEY ALSO REPORTED ON THE CONDITION
OF THE CREW. AS FAR AS NASAL CONGESTION AND PHYSICAL CONDI-
TION IS CONCERNED, HE REPORTED THAT COMMANDER WALLY SCHIRRA,
APPEARED TO BE HOLDING HIS OWN, AND THAT DONN EISELE WAS PER-
HAPS GETTING SOMEWHAT WORSE. HE DID NOT COPY HIS COMMENTS
IN REGARD TO HIS OWN CONDITION. FLIGHT SURGEON REQUESTED

APOLLO 7 COMMENTARY, 10/14/68, GET: 821030 (CDT 815P) 280/3

PAO THAT THE CREW ATTEMPT TO OBTAIN TEMPERATURE READINGS, AND WE WOULD PERHAPS EXPECT TO SEE THAT INFORMATION COMING UP ON SUBSEQUENT PASSES. WE'LL NEXT BE ACQUIRING THE TRACKING SHIP REDSTONE IN THE SOUTH PACIFIC. THAT ACQUISITION IS SCHEDULED TO OCCUR AT ABOUT 82 HOURS 42 MINUTES GROUND ELAPSED TIME AND THERE'S ALSO A POSSIBILITY OF A VERY LOW ANGLE ACQUISITION AS WE PASS HAWAII GOING OFF THE - SOUTH OF THE HAWAIIAN ISLANDS. NOW WE WILL BE PASSING THAT POINT AT 82 HOURS 29 MINUTES GROUND ELAPSED TIME, OR ABOUT 10 MINUTES FROM NOW. THIS IS APOLLO CONTROL AT 82 HOURS 19 MINUTES INTO THE FLIGHT.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 823300 (CDT: 8:40P) 281/1

PAO THIS IS APOLLO CONTROL 82 HOURS
33 MINUTES INTO THE FLIGHT. NOW WE'VE JUST HAD A BRIEF
ACQUISITION FROM THE HAWAIIAN TRACKING STATION. AND WE'LL
PLAY BACK THE TAPES OF THE AIR-TO-GROUND COMMUNICATIONS FROM
THAT PASSING IN THEIR ENTIRETY NOW.

CAPCOM APOLLO 7, HOUSTON, HAWAII STAND BY.

SC (GARBLED)

CAPCOM APOLLO 7, HOUSTON, YOU'RE REAL WEAK.

SC ROGER, READ YOU LOUD AND CLEAR.

CAPCOM ROGER.

SC (CUT OFF) ADJUST OUR SLEEP CYCLE HERE

THIS 5 AND A HALF HOURS IS NOT TOO APPEALING WITH BURN 3
ALREADY OUT OF THE WAY.

CAPCOM ROGER.

SC WE WOULD LIKE TO ADD AN HOUR AND A
HALF TO EACH OF OUR SLEEP CYCLES.

CAPCOM GO. MAY I COPY THAT WALLY.

SC OKAY, THAT WILL GIVE US EACH 7 HOURS

SO WE'LL STAY ON WATCH FOR AN HOUR AND A HALF HERE, AND
SACK IT OUT WITH DONN TOMORROW OR LATER.

CAPCOM OKAY.

SC VERY GOOD. WHAT WE'LL DO IS JUST ADD
AN HOUR AND A HALF TO EACH OF OUR SLEEPING SCHEDULES.

CAPCOM SO FAR IT LOOKS GOOD DOWN HERE.

SC ROGER.

PAO AND THAT'S LOS, LOSS OF SIGNAL FROM
THE HAWAIIAN PASS. THE NEXT STATION TO ACQUIRE IS THE
TRACKING SHIP REDSTONE AND WE'LL BE PICKING THEM UP IN JUST
ABOUT 8 MINUTES FROM NOW. THIS IS APOLLO CONTROL AT 82 HOURS
35 MINUTES.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 824250(CDT 8:45 P) 282/1

PAO THIS IS APOLLO CONTROL AT 82 HOURS 43
MINUTES AND WE'VE JUST PUT IN A CALL TO THE CREW, HERE'S
THAT CONVERSATION NOW.

CAPCOM ROGER, WE HAD IT JUST ABOUT ALL FIXED
AND THEN YOU GUYS USED SOME OVER HAWAII.

SC SORRY ABOUT THAT.

CAPCOM IT'S ALL RIGHT.

CAPCOM APOLLO 7, HOUSTON, OPPOSITE OMNI.

CAPCOM APOLLO 7, GARBLE.

SC WHY DON'T YOU SEE IF JACK CAN PASS US UP
A LIMA SIERRA UPDATE TOMORROW AFTERNOON SOMETIME.

CAPCOM SAY AGAIN, WALT.

SC WHY DON'T YOU SEE IF JACK CAN PASS US
UP A LIMA SIERRA UPDATE TOMORROW AFTERNOON SOMETIME.

CAPCOM WELCO.

SC IT'S COMPLETELY DRY UNDERNEATH THE SUIT
BAG AT THIS TIME.

CAPCOM ROG, THAT'S GOOD TO HEAR THAT. I WAS
A LITTLE CURIOUS OF HOW IT STAYED IN ONE PLACE DOWN THERE.

SC GARBLE.

CAPCOM MISSED THAT. ASCENSION AT 08.

SC GARBLE.

CAPCOM ROG, I UNDERSTAND.

SC GARBLE.

PAO THIS IS MISSION CONTROL, THE SPACECRAFT
IS NOW GONE OVER THE HORIZON AND OUT OF RANGE OF THE TRACKING
SHIP REDSTONE, THE NEXT STATION TO ACQUIRE WILL BE THE
STATION AT ASCENSION AND WE'LL BE COMING UP THERE IN ABOUT
19 MINUTES FROM NOW AT 82 HOURS 51 MINUTES INTO THE MISSION
THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 890900 (CDT 9:12P) 283/1

PAO THIS IS APOLLO CONTROL, 83 HOURS AND 9 MINUTES INTO THE FLIGHT. AT THE PRESENT TIME WE ARE COMING UP ON THE TRACKING STATION AT ASCENSION AND WE'LL STAND BY AS RON EVANS PUTS IN A CALL TO THE CREW.

CAPCOM APOLLO 7 HOUSTON THROUGH ASCENSION.

SC ROGER, LOUD AND CLEAR

CAPCOM ROGER, I HAVE SOME DATA FOR YOU, IF YOU ARE READY TO COPY.

SC GO AHEAD

CAPCOM ROGER, YOUR TOTAL USABLE SERVICE MODULE RCS FUEL IS QUAD A, 48 PERCENT, BRAVO 57 PERCENT, CHARLIE 48 PERCENT, AND DELTA 57 PERCENT.

SC WHAT DOES THAT ALL TOTAL UP TO IN POUNDS RON, DO YOU HAVE THAT?

CAPCOM ROGER, FOR YOUR CHART UP DATE ITS 687 POUNDS AT 83 HOURS. I HAVE YOUR NEW RED LINES IF YOU'D LIKE THOSE TOTALS ALSO.

SC FORTY EIGHT PERCENT USABLE, I'M NOT SURE THAT I KNOW HOW MUCH I HAVE IN THAT QUAD THAT'S USABLE.

CAPCOM WALT, SAY THAT AGAIN.

SP (GARBLED) WE ALSO HAVE TO SWITCH AND I DON'T THINK ITS 48 PERCENT USABLE ITS (GARBLE) PERCENT.

CAPCOM APOLLO 7, HOUSTON, ARE YOU SAYING WHEN TO SWITCH TO SECONDARY?

SC WE HAVE SWITCHED TO SECONDARY AT 43 PERCENT AND I NEED TO KNOW AN ABSOLUTE PERCENT IN THE QUAD, NOT A PERCENT USABLE IF YOU HAVE IT.

CAPCOM ROGER, WE'LL GET IT FOR YOU.

SC AND THE NUMBER FOR THE CHART YOU SAID WAS 683?

CAPCOM 687.

SC 687, THANK YOU.

CAPCOM AND I HAVE YOUR BATTERY TOTAL.

SC GO AHEAD WITH THE BATTERY.

CAPCOM ROGER, BAT A 33.2, BAT B 30.8, BAT C 39.5.

SC ROG, YOU'RE GIVING A LOW, LOW THERE, I HOPE YOU ARE STILL CONSIDERING WITH THE CHARTS SOMETIME AROUND SIX OR SO.

CAPCOM ROG, WALT, WE'RE STILL EVALUATING THIS, WE'RE WORKING VERY CLOSELY WITH THE MANUFACTURER AND WE SHOULD HAVE SOME INFORMATION PROBABLY SOMETIME TOMORROW.

SC ROGER, THANK YOU

CAPCOM AND BE ADVISED THE VOICE QUALITY OF THE DFE IS STILL GOOD.

SC ROGER, UNDERSTAND, THANK YOU. WERE YOU GIVING ME USABLE OR A NUMBER TO GO ON MY CHART WHEN YOU GAVE ME THE CHART UPDATE?

APOLLO 7 COMMENTARY, 10/14/68, GET: 890900 (CDT 9:12P) 283/2

CAPCOM THE CHART UP DATE IS WHAT YOU'RE GOING TO CHART WITH IN THE POUNDAGE, THE PERCENTAGE WAS THE TOTAL USABLE, AS CALCULATED ON THE GROUND. NOT A CORRECTION FACTOR FOR YOUR GAUGES.

SC ROGER, OUR CHART INCLUDES 58 POUNDS UNUSABLE. DO WE ADD THAT TO THE NUMBER YOU GAVE OR DID YOU GIVE US THE NUMBER OF THE ORDINATE THERE?

CAPCOM THE NUMBER FOR THE ORDINATE. APOLLO 7 HOUSTON, WE'RE READING ABOUT 84 PERCENT ON THE WASTE WATER TO QUANTITY, JUST ABOUT LOS NOW.

SC ROGER, WE ARE GOING TO COMMENCE SOMETHING IN FIVE MINUTES.

CAPCOM ROGER. WE WILL PICK YOU UP AT MERCURY AT 44.

SC (GARBLED)

CAPCOM SAY AGAIN, WHAT?

SC THE LAST NUMBER WE HAD WAS 808, LOOKS LIKE SOMEWHERE I MISSED 20 POUNDS, LESS THAN 4.3.

CAPCOM ROGER, I UNDERSTAND

PAO THIS IS MISSION CONTROL, WE'VE HAD LOSS OF SIGNAL NOW FROM ASCENSION, THE NEXT STATION TO ACQUIRE WILL BE THE TRACKING SHIP MERCURY AND WE WILL BE PICKING UP THE SPACECRAFT THERE IN ABOUT 29 OR 30 MINUTES FROM NOW. THIS IS APOLLO CONTROL AT 83 HOURS AND 16 MINUTES INTO THE FLIGHT.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 834440 (CDT 9:50P) 284/1

PAO THIS IS APOLLO CONTROL. THE APOLLO 7 SPACECRAFT IS NOW 83 HOURS 45 MINUTES INTO ITS MISSION. WE'RE COMING UP ON THE TRACKING SHIP MERCURY ABOUT MIDWAY THROUGH A DAY SIDE PASS. ASTRONAUT DONN EISELE IS NEARING THE END OF A SEVEN HOUR SLEEP PERIOD AT 84 HOURS GROUND ELAPSED TIME. THE COMMANDER, WALLY SCHIRRA, AND LUNAR MODULE PILOT, WALT CUNNINGHAM ARE SCHEDULED TO BEGIN THEIR SLEEP PERIOD. WE'LL STAND BY NOW AS CAP COM RON EVANS PUTS IN A CALL TO THE CREW. WE'LL HAVE OVERLAPPING COVERAGE HERE FROM MERCURY ON THROUGH THE TRACKING STATION ON GUAM.

CAPCOM APOLLO 7, HOUSTON, MERCURY STANDING BY.
CAPCOM APOLLO 7, HOUSTON THROUGH MERCURY
STANDING BY.

SC ROGER, WE READ YOU LOUD AND CLEAR.
CAPCOM ROGER, SAME HERE.
PAO THIS IS APOLLO CONTROL. NOW WE'VE HAD A VERY QUIET PASS TILL NOW, BUT WE WILL CONTINUE TO MONITOR THROUGH GUAM.

CAPCOM APOLLO 7, HOUSTON, 1 MINUTE TILL LOS.
REDSTONE AT 15.

SC ROGER, WE'RE JUST BREAKING DOWN NOW
FOR THE SLEEPING PERIOD. WALLY AND I ARE GOING OFF HERE.
CAPCOM ROGER.
SC (GARBLED)
CAPCOM SAY AGAIN, WALT.
SC I WAS JUST REPEATING WE GET OFF HERE.
PAO WE'VE HAD LOSS OF SIGNAL NOW WITH THE SPACECRAFT. DUE TO PICK UP AGAIN AT THE TRACKING SHIP REDSTONE IN ABOUT 20 MINUTES. THIS IS APOLLO CONTROL AT 83 HOURS 56 MINUTES.

END OF TAPE

PAO THIS IS APOLLO CONTROL AT 84 HOURS
16 MINUTES. THE SPACECRAFT HAS JUST GONE INTO A NIGHT-SIDE
PASS AND IS COMING UP ON THE TRACKING SHIP REDSTONE. WE'LL
STANDBY HERE FOR A CALL TO THE CREW FROM THE CAPCOM RON
EVANS.

CAPCOM APOLLO 7, HOUSTON THROUGH REDSTONE.
CAPCOM APOLLO 7, REDSTONE STANDING BY.

SC READ YOU RON.

CAPCOM HEY, GOOD MORNING.

SC HOW ARE YOU?

CAPCOM GETTING ALONG GREAT, YOURSELF?

SC OH JUST FINE, I JUST GOT UP AND HAD
A GOOD NIGHTS REST. WALLY AND WALT ARE SACKING OUT NOW.

CAPCOM HEY, GOOD.

CAPCOM APOLLO 7, HOUSTON.

SC GO RON.

CAPCOM ROGER, I WANT TO CYCLE THE O2 TANK 1
FANS AT THIS TIME. TURN THEM ON AND -- FOR FIVE MINUTES AND
THEN OFF.

SC ROGER, I'VE GOT ONE ON AT THE MOMENT
TWO ARE OFF. YOU WANT ME TO TURN TWO ON FOR A BIT?

CAPCOM NEGATIVE. WE THOUGHT O2 TANK 2 WAS IN
AUTO, AND O2 TANK 1 FAN WAS OFF. WE WOULD LIKE TO TURN ON
TANK 1 FAN AT THIS TIME.

SC OKAY, BUT IT'S JUST THE OTHER WAY AROUND.

CAPCOM OKAY, STAND BY THEN.

CAPCOM OKAY, DONN, LET'S GO AHEAD AND CYCLE
2 FANS ON FOR FIVE MINUTES AND THEN OFF.

SC ROGER. WE'VE GOT A COUPLE OF REPORTS
FOR YOU.

CAPCOM ROGER, GO.

SC ROGER, WE HAD CANISTER CHANGE NUMBER 7,
AT AROUND 8230, AND BELIEVED WALLY AND WALT CHECKED THE
COMMAND MODULE RCS TEMPERATURES AT AROUND 83 HOURS AND THEY
WERE ALL FIVE VOLTS. ALL EXCEPT 6A AND THAT WAS 4.9.

CAPCOM ROG, COPY.

SC RON, WE HAVE A NUMBER OF 687 POUNDS RCS
NOW IS THAT TOTAL OR IS THAT JUST USABLE?

CAPCOM DONN, THAT IS USABLE PROPELLANT.

SC OKAY, SO I CAN ADD FOR OUR CHART UP
HERE I CAN ADD TO 58 POUNDS THEN WE HAVE INCLUDED IN IT?

CAPCOM THAT'S AFFIRMATIVE.

SC ROGER, IN THE FUTURE WHEN YOU GIVE US
THE TOTALS WOULD YOU PLEASE HAVE THE UNUSABLE ADDED IN BECAUSE
THAT'S WHAT WE PLOTTING ON THIS LITTLE CARD WE'VE GOT.

CAPCOM ROGER, YOU WANT THE ORDINATE WHEN I GIVE
YOU THE DATA. IS THAT CORRECT?

SC ROGER.

APOLLO 7 COMMENTARY, 10/14/68, GET 841550 CDT 10:20P 285/2

SC THAT MAKES US FEEL BETTER WE WONDERED
WHAT HAPPENED TO ALL THE FUEL ALL OF A SUDDEN.
CAPCOM OKAY.
CAPCOM DONN, I WANT TO MAKE SURE YOU SAVE THREE
DECONGESTENTS FOR USE PRIOR TO REENTRY.
SC ROGER, WE GOT YOU ON THAT.
CAPCOM ROGER.
CAPCOM I'VE GOT ABOUT 1 MINUTE TO LOS DONN.
SC ROGER, SAY IT.
CAPCOM YOU MIGHT BE INTERESTED TO KNOW THAT
THE LITTLE TV YESTERDAY MORNING WAS MUCH MUCH BETTER THAN
ANY GROUND TESTING I HAD EVER SEEN.
SC IS THAT RIGHT? BOY THAT'S GREAT. DID
YOU SEE IT ON THE COMMERCIAL?
CAPCOM AFFIRMATIVE, AND IT WAS REALLY GREAT.
SC THAT'S DANDY.
PAO WE'VE HAD LOSS OF SIGNAL NOW AT THE
REDSTONE. AS YOU HEARD ASTRONAUT DONN EISELE HAS JUST GOTTEN
UP FROM HIS 7 HOUR SLEEP PERIOD. AND REPORTED THAT HE HAD
A GOOD NIGHTS SLEEP, BUT WALLY SCHIRRA AND WALT CUNNINGHAM
ARE NOW SACKED OUT AS HE PUT IT, BEGINNING THEIR 7 HOUR
SLEEP PERIOD. THEY'RE SCHEDULE TO SLEEP FROM 84 HOURS TO
91 HOURS. THE NEXT STATION TO ACQUIRE THE SPACECRAFT WILL BE
ASCENSION AS WE COME UP ON THE START OF THE 54 REVOLUTION
AT 84 HOURS 25 MINUTES THIS IS APOLLO CONTROL

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET 844130 (CDT 10:45 P) 286/1

PAO THIS IS APOLLO CONTROL AT 84 HOURS 42 MINUTES INTO THE MISSION WE'RE COMING UP NOW ON THE ASCENSION TRACKING STATION, JUST AT THE BEGINNING - AT THE END RATHER OF A NIGHT SIDE PASS WE'LL BE COMING OUT AT THE SPACECRAFT, WE'LL BE COMING OUT INTO DAYLIGHT, PROBABLY BEFORE THE ASCENSION PASS IS COMPLETED. DURING THIS PASS WE'RE SCHEDULED, ACCORDING TO THE FLIGHT PLAN TO GET AN UPDATE TO THE ONBOARD CONTINGENCY LANDING INFORMATION, THIS IS INFORMATION THAT IS ROUTINELY PASSED UP TO THE CREW SEVERAL REVOLUTIONS AHEAD AND WOULD GIVE THEM THE NECESSARY INFORMATION SHOULD - SHOULD A DEORBIT BECOME NECESSARY WHILE THEY WERE OUT OF COMMUNICATIONS WITH ONE OF THE GROUND TRACKING STATIONS. WE'LL STAND BY NOW FOR ANY CONVERSATION WITH THE CREW OVER THE ASCENSION STATION.

CAPCOM ASCENSION STANDING BY.
CAPCOM APOLLO 7, HOUSTON, OPPOSITE OMNI.
SC ROGER.
CAPCOM APOLLO 7, HOUSTON, ONE MINUTE LOS,

MERCURY AT 18.

SC ROGER.

PAO WE'VE HAD LOSE OF SIGNAL NOW, WITH THE SPACECRAFT, FROM THE ASCENSION TRACKING STATION, A VERY QUIET PASS THERE, WE HEARD FROM DONN EISELE I THINK TWICE, ONCE AT THE BEGINNING ACKNOWLEDGING THE CAPCOMS INITIAL ACQUISITION REPORT AND THEN ROGER AT THE END AS WE WERE ABOUT TO LOSE WAS LOCK WITH THE SPACECRAFT. HERE IN MISSION CONTROL CENTER WE'RE IN THE MIDST OF CHANGING SHIFTS. FLIGHT DIRECTOR JERRY GRIFFIN WILL BE COMING ON REPLACING FLIGHT DIRECTOR GENE KRANZ AND WE'RE LOOKING TOWARD A CHANGE OF SHIFT PRESS BRIEFING AT THE PRESENT TIME TO OCCUR AT APPROXIMATELY ELEVEN THIRTY. AT 84 HOURS 52 MINUTES INTO THE MISSION THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 851800 (CDT 11:20) 287/1

PAO THIS IS APOLLO CONTROL, 85 HOURS, 18 MINUTES, 25 SECONDS INTO THE MISSION OF APOLLO 7. WE ARE COMING UPON THE ACQUISITION POINT FOR THE MERCURY TRACKING SHIP THIS TIME. LET'S STANDBY FOR ANY CONVERSATION.

CAPCOM APOLLO 7, HOUSTON.

SC HOUSTON, APOLLO 7.

CAPCOM ROGER, APOLLO 7, HOUSTON, ACQUISITION MERCURY. I WOULD LIKE TO BRIEF YOU ON A USB TEST. IT INVOLVES A COUPLE OF SWITCHES.

SC OKAY, GO AHEAD.

CAPCOM RIGHT. JUST ABOUT TIME LOS MERCURY, WE WOULD LIKE POWER TMP TO OFF. AND THE S-BAND VOLUME FOR THAT GUAM PASS. AND THIS WILL BE AT ABOUT - 25 MINUTES, T-5 HOURS AND 25 MINUTES.

SC OKAY, WILL DO. POWER PMP TO OX AND S-BAND VOLUME FOR PASS.

CAPCOM RIGHT AND IF THE TEST DOESN'T WORK OUT, I WILL TRY AND COME BACK ON VHF. OTHERWISE, AT LOS GUAM, YOU CAN PUT THE POWER PMP BACK TO NORMAL.

SC ROGER, UNDERSTAND.

CAPCOM RIGHT. APOLLO 7, WE WOULD LIKE POWER PMP TO OX, ANYTIME NOW.

SC ROGER. HOUSTON, APOLLO 7.

CAPCOM GO.

SC ROGER. WOULD YOU CONFIRM THE H2 FUEL CELLS PURGE THAT ARE IN THE FLIGHT PLAN?

CAPCOM STANDBY. APOLLO 7, HOUSTON, NEGATIVE. WE ARE UPDATING THAT REAL TIME. YOU CAN DISREGARD THAT ENTRY.

SC ROGER. THAT IS WHY THE APOLLO HEATERS ARE OFF. I'VE GOT A COUPLE OF REPORTS I WOULD LIKE TO MAKE.

CAPCOM GO.

SC OKAY. WHEN WALLY WENT TO SLEEP, IT WAS ABOUT 84 HOURS, HE TOOK TWO ASPIRINS AND TWENTY CLICKS OF WATER. AND WHEN I WENT TO ASLEEP ABOUT 77 HOURS, I TOOK TWO ASPIRINS AND RIGHT TO BED AND TWENTY CLICKS OF WATER.

CAPCOM ROGER, UNDERSTAND. WALLY AT 84 HOURS, TWO ASPIRINS AND TWENTY CLICKS. DON, AT 77 HOURS, TWO ASPIRINS AND ONE ACTIFED AND TWENTY CLICKS.

SC THAT IS RIGHT.

CAPCOM THANK YOU. APOLLO 7, HOUSTON, I'LL HAVE A BLOCK DATA AT REDSTONE.

SC ROGER, UNDERSTAND, BLOCK DATA AT REDSTONE.

CAPCOM RIGHT. APOLLO 7, HOUSTON, 1 MINUTE LOS GUAM, REDSTONE AT 50.

SC ROGER, UNDERSTAND.

APOLLO 7 COMMENTARY, 10/14/68, GET: 851800 (CDT 11:20 287/2

PAO THIS IS APOLLO CONTROL, 85 HOURS, 30 MINUTES INTO THE MISSION OF APOLLO 7. WE HAVE JUST LOST ACQUISITION WITH GUAM TRACKING STATION. WE ARE ANTICIPATING ACQUISITION AT THE REDSTONE TRACKING SHIP AT 85 HOURS, 50 MINUTES. DURING THAT PASS, IT WAS INDICATED BY ASTRONAUT EISELE THAT THE SPACECRAFT COMMANDER SCHIRRA AND THE LMP PILOT, CUNNINGHAM ENTERED A SLEEP PERIOD 84 HOURS INTO THE MISSION. SCHIRRA TOOK TWO ASPIRINS AND TWENTY CLICKS OF WATER AND EISELE IN HIS SLEEP PERIOD TOOK BEFORE HIS SLEEP PERIOD TOOK TWO ASPIRINS, ONE ACTIFED, AND TWENTY CLICKS OF WATER. AT 85 HOURS, 31 MINUTES INTO THE MISSION, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 864800 (CDT 12:50) 288/1

PAO THIS IS APOLLO CONTROL, 86 HOURS,
48 MINUTES INTO THE MISSION OF APOLLO 7. WE HAVE - A TAPE
OF OUR REDSTONE PASS WHICH OCCURRED AT 8550 AND FOLLOWING
THAT JUST A VERY SHORT TAPE AT ASCENSION ISLANDS, STARTED
AT 8617. WE WILL ROLL THOSE NOW.

CAPCOM APOLLO 7, HOUSTON.

SC HOUSTON, APOLLO 7, GO.

CAPCOM ROGER, I HAVE A BLOCK DATA WHEN YOU ARE
READY TO COPY.

SC GO AHEAD, BILL.

CAPCOM ROGER. BEFORE I START, WE WOULD LIKE TO
CONFIRM THE PMP POWER BACK TO NORMAL.

SC POWER IS NORMAL.

CAPCOM OKAY, BLOCK DATA.

SC STARTING TO READ.

CAPCOM 057-2 ALPHA, PLUS 242, MINUS 0270,
08 NINER, 0620, 3382, 58-1 CHARLIE, PLUS 200, MINUS 0600,
0 NINER 0, 30, 41, 3332, 05 NINER-1 ALPHA, PLUS 270,
MINUS 0640, 0 NINER 2, 0654, 334 NINER, 060-1 ALPHA,
PLUS 310, MINUS 0644, 0 NINER 3432 NINER, 340 NINER,
061-1 ALPHA, PLUS 306, MINUS 0645, 0 NINER 5, 2000, 365 NINER,
062-1 ALPHA, PLUS 254, MINUS 0640, 0 NINER 6, 5238, 2888.
READ BACK, PLEASE.

SC ROGER. 57-2 ALPHA, PLUS 242, MINUS 0270,
089, 0620, 3382, 058-1 CHARLIE, PLUS 200, MINUS 0600,
090, 3041, 3332, 059-1 ALPHA, PLUS 270, MINUS 0640, 092,
0654, 3349, 060-1 ALPHA, PLUS 310, MINUS 0644, 0934329,
3409, 06L-1 ALPHA, PLUS 306, MINUS 0645, 095, 2000, 3659,
062-1 ALPHA, PLUS 254, MINUS 0640, 096, 5238, 2888.

CAPCOM READBACK IS CORRECT.

SC ROGER.

CAPCOM APOLLO 7, HOUSTON. WE ARE STILL SHOWING
REAL TIME ON SM AND - WOULD YOU CHECK PMP POWER NORMAL
AGAIN?

SC ROGER, I GOT IT NOW.

CAPCOM RIGHT. APOLLO 7, HOUSTON, 1 MINUTE LOS
REDSTONE, SINKING AT 17.

SC ROGER, HOUSTON.

CAPCOM APOLLO 7, HOUSTON, ACQUISITION SINKING,
STANDING BY. APOLLO 7, HOUSTON, ACQUISITION SINKING, STAND-
ING BY.

SC ROGER. YOU'RE VERY BETTER, HOUSTON.

CAPCOM ROGER, UNDERSTAND. APOLLO 7, HOUSTON,
COMING UPON LOS MERCURY AT 53.

PAO THIS IS APOLLO CONTROL, 86 HOURS,
53 MINUTES INTO THE MISSION. WE'RE COMING UPON THE MERCURY
TRACKING SHIP FOR A LIVE PASS. LET'S STANDBY.

CAPCOM APOLLO 7, HOUSTON, ACQUISITION MERCURY,
STANDING BY.

APOLLO 7 COMMENTARY, 10/15/68, GET: 864800 (CDT 12:50) 288/2

SC ROGER, HOUSTON, APOLLO 7. BILL, COULD
YOU GET ME THE STATIC VENT UPDATE FOR OUR ORBITAL MAP.
CAPCOM STANDBY. APOLLO 7, HOUSTON. THE GET
FOR THE NODE CROSSING IS 84 PLUS 49 PLUS 48.

SC ROGER, UNDERSTAND, 84 PLUS 49 PLUS 48.

CAPCOM RIGHT. AND IT WILL BE 3.1 WEST.

SC ROGER, THANK YOU.

CAPCOM AND IT IS REV 54.

SC ROGER THAT.

CAPCOM OKAY.

PAO THIS IS APOLLO CONTROL, 86 HOURS,

58 MINUTES INTO THE MISSION. WE WILL ACQUIRE GUAM AT
865941. THIS GIVES US ANOTHER MINUTE AND THAT WILL BE A
VERY SHORT PASS OF SOME 3 MINUTES. ONE POINT OF INTEREST
IS THE TELEVISION FOR TOMORROW WILL BE IN THE SIXTIETH REV-
OLUTION AT 95 HOURS, 25 MINUTES, 55 SECONDS, GROUND ELAPSED
TIME. THAT IS 92840, CENTRAL DAYLIGHT TIME, ROUGHLY
29 MINUTES AFTER 9 IN THE MORNING. LET'S STANDBY FOR ANY
POSSIBLE CONVERSATION ON THIS GUAM PASS.

CAPCOM APOLLO 7, HOUSTON ACQUISITION GUAM.
I WILL HAVE A FLIGHT PLAN UPDATE AT REDSTONE AND HAVE SEV-
ERAL ITEMS.

SC ROGER, UNDERSTAND.

PAO THIS IS APOLLO CONTROL, 87 HOURS,
2 MINUTES INTO THE MISSION. WE ARE ABOUT 10 SECONDS AWAY
FROM LOSS OF SIGNAL AT GUAM. WE ARE ANTICIPATING ACQUI-
TION AT REDSTONE AT 87 HOURS, 24 MINUTES. AT THAT TIME WE
HAD AN INDICATION FROM ASTRONAUT POGUE, THE CAPCOM, TO
ASTRONAUT EISELE THAT WE WOULD HAVE AN UPDATE FOR THEM ON
THE FLIGHT PLAN. WE ARE NOW - WELL INTO THE FIFTYFIFTH REV-
OLUTION, HEADING FOR SOUTH AMERICA. AT 87 HOURS, 2 MINUTES
INTO THE MISSION, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 872400 (CDT 1:26A) 289/1

PAO THIS IS APOLLO CONTROL, 87 HOURS 24 MINUTES INTO THE MISSION OF APOLLO 7. WE'RE COMING UP ON THE REDSTONE TRACKING SHIP AND JUST ACQUIRED.

SC HOUSTON, STAND BY. WALLY WILL BE WITH YOU IN JUST ONE MINUTE.

CAP COM APOLLO 7, HOUSTON.

SC ROGER HOUSTON, APOLLO 7, GO.

CAP COM ROGER. DONN, I HAVE A RATHER EXTENSIVE FLIGHT PLAN UPDATE AND WHAT I'D LIKE FOR YOU TO DO IS JUST FOLLOW ME WITH THE FLIGHT PLAN AND WE'LL GO THROUGH HERE FOR ABOUT 88 HOURS RIGHT ON THROUGH UP TO 100 HOURS. APOLLO 7, HOUSTON, OPPOSITE OMNI. APOLLO 7, HOUSTON, JUST LET ME KNOW WHEN YOU'RE READY TO COPY.

SC ROGER. GO AHEAD BILL, I'M READY.

CAP COM DONN, DO YOU HAVE THE FLIGHT PLAN THERE?

SC ROGER.

CAP COM OKAY.

SC ROGER, I'VE GOT IT RIGHT IN FRONT OF ME.

CAP COM RIGHT. I'D DIDN'T WANT YOU TO HAVE TO WRITE IT ON ANYTHING ELSE. AT 88 HOURS DELETE THE REFERENCE TO P-30.

SC ROGER.

CAP COM OKAY, NOW ON THE NEXT HALF OF THE PAGE FROM 88 TO 90 YOU CAN DELETE EVERYTHING ON THAT PAGE AND THERE'LL BE TWO ADDITIONS, SO YOU CAN JUST DRAW A LINE THROUGH ALL OF THOSE IF YOU WANT.

SC SHOULD BE WHAT?

CAP COM WE'LL DELETE, CANCEL ALL THE ACTIONS LISTED FROM 88 HOURS TO 90 HOURS.

SC RIGHT, I'VE ALREADY GOT THAT.

CAP COM OKAY. AT 89 HOURS THERE'LL BE A GNC POWERUP, PROGRAM FIVE.

SC WHAT TIME?

CAP COM 89 + 00.

SC ROGER, 89 HOURS POWERUP?

CAP COM ROGER. ADD 89 + 30 YOU'LL GET AN UPDATE FOR RAD DEGRADATION TEST, THERE'LL BE A STATE VECTOR AND TIME OF IGNITION. OKAY. ARE YOU READY FOR 90 HOURS?

SC AH, BILL, YOU'RE CUTTING IN AND OUT. I'M ONLY GETTING ABOUT HALF OF THIS.

CAP COM OKAY, I'LL SAY AGAIN. DID YOU GET THOSE TWO ADDITIONS? DID YOU GET THE ONE AT --

SC ALL I GOT WAS DELETE EVERYTHING FROM 88 THROUGH 90 AND THEN POWERUP AT 89.

CAP COM ROGER. OKAY AT 89 + 30 THERE WILL BE AN UPDATE FOR RADIATOR DEGRADATION. OKAY, AT -- ARE YOU

APOLLO 7 COMMENTARY, 10/15/68, GET: 872400 (CTD 1:26A) 289/2

CAP COM STILL READING?
SC ROGER. YOU WANT THE WHOLE G&N UP AT THAT TIME OR JUST THE COMPUTER?
CAP COM WELL, LET'S SEE. RIGHT, THAT'S CORRECT, THAT'S A COMPLETE POWERUP AT 89 HOURS.
SC OKAY.
CAP COM AND AT 89 + 30 THE UPDATE WILL BE FOR THE RADIATOR DEGRADATION TEST. STARTING AT 90 HOURS, YOU CAN DELETE EVERYTHING ON THAT PAGE.
SC ROGER.
CAP COM AND AT 90 HOURS AND ABOUT 10 MINUTES, YOU CAN PUT IN THERE P-51.
SC ROGER.
CAP COM AT 91 HOURS AND 42 MINUTES, A P-52.
SC WAIT A MINUTE, 91 HOURS IS IN THE DAYTIME.
CAP COM 91 42. DONN, WE'RE GETTING READY FOR LOS HERE. I'LL TALK TO YOU AT ANTIGUA.
PAO THIS IS APOLLO CONTROL, 87 HOURS 33 MINUTES INTO THE MISSION OF APOLLO 7. WE HAVE JUST LOST ACQUISITION WITH THE REDSTONE TRACKING SHIP, AH, THE UPDATES OF THE FLIGHT PLAN WILL BE COMPLETED PROBABLY WHEN THEY HAVE ACQUISITION CANARY ISLANDS AND THAT'S ANTICIPATED TO BE 87 HOURS 54 MINUTES. SO, AT THIS POINT, THE SPACECRAFT COMMANDER SCHIRRA AND LM PILOT CUNNINGHAM HAVE BEEN ASLEEP OVER 2-1/2 HOURS. WE'RE COMING UP ON THE BEGINNING OF THE 56TH REVOLUTION AT 87 HOURS 33 MINUTES INTO THE MISSION THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 875400 (CDT 1:57A) 290/1

PAO THIS IS APOLLO CONTROL 87 HOURS 54 MINUTES INTO THE MISSION OF APOLLO 7. WE'RE COMING UP ON THE ACQUISITION POINT FOR THE CANARY ISLANDS AT WHICH POINT ASTRONAUT POGUE HERE IN THE CONTROL CENTER WILL COMPLETE SENDING UP THE REVISED FLIGHT PLAN FOR THE NEXT FEW HOURS, SO LET'S STAND BY FOR CANARY ISLANDS.

CAP COM APOLLO 7, HOUSTON. APOLLO 7, HOUSTON ACQUISITION CANARIES. APOLLO 7, HOUSTON WE'D LIKE TO CONTINUE WITH THE FLIGHT PLAN UPDATE WHEN YOU'RE READY.

SC GOT 'CHA, GO AHEAD BILL.

CAP COM ROGER. I THINK WE WERE TALKING ABOUT 91 HOURS AND 42 MINUTES A P-52 AND YOU WERE QUESTIONING NIGHTTIME AND THE NIGHTTIME IS STARTING TO MOVE BACK A LITTLE BIT BECAUSE OF THE CHANGE IN THE ORBIT AND THAT SHOULD BE ALRIGHT JUST AFTER SUNSET.

SC ROGER. I DIDN'T GET THE DATA ON THAT 91:42 A 52.

CAP COM ROGER. THAT'S RIGHT 91 + 42. OKAY, ON THE SECOND COLUMN ON PAGE 236, STARTING AT 92 HOURS, AT 92:25 WE HAVE AN MCC UP DATE. YOU CAN SCRATCH THROUGH EVERYTHING EXCEPT THE GO-NO-GO. AND AT 92 + 35 ADD INITIATE RADIATOR DEGREDDATION TEST.

SC ROGER. SAY AGAIN THAT TIME FOR THAT.

CAP COM 92 + 35.

SC OKAY, GOT IT.

CAP COM RIGHT, YOU CAN DELETE THE P-THIRTY -- ALL THE REFERENCES TO SEPARATION FOR THE BURN OF COURSE YOU CAN DELETE THOSE. AT 93 + 15 ADD H2 STRAT TEST (60 PERCENT) IS WHAT THEY'LL ESTIMATE YOU HAVE AT THAT TIME. SO THAT WILL BE AT 93 + 15 H2 STRAT TEST 60 PERCENT.

SC ROGER, GOT IT.

CAP COM AND THE CANNISTER CHANGE DOES STAY IN.

SC OKAY.

CAP COM AT 94 HOURS, FUEL CELL O2 PURGE.

SC OKAY.

CAP COM NEXT PAGE. 94 HOURS + 30 UNSTOW AND SET UP TV.

SC ROGER.

CAP COM AND OF COURSE YOU CAN DELETE THE ITEMS IN THERE ABOUT THE RADIATOR DEGREDDATION TEST AND H2 HEATERS ARE ON AT 95 HOURS.

SC OKAY.

CAP COM AT 95 + 25, TV ON. THAT WILL BE AT TEXAS AOS, 95 + 25 TV ON.

SC ROG, I GOT 'CHA.

CAP COM OKAY. ON THE NEXT COLUMN, AT 96 + 40 DELETE THE REFERENCE TO THE ECS FIGURE DEGREDDATION TEST.

SC ROGER.

APOLLO 7 COMMENTARY, 10/15/68, GET: 875400 (CDT 1:57A) 290/2

CAP COM AT 97 HOURS, ADD END RADIATOR DEGRADATION TEST. YOU WILL HAVE STARTED IT UP ABOUT 92:35.

SC OKAY.

CAP COM ALSO, AT 97 HOURS, YOU'LL RECEIVE UPDATE FOR SCANNING TELESCOPE STAR COUNT. THAT'LL BE AT 97 HOURS, UPDATE SCT STAR COUNT.

SC OKAY.

CAP COM AND FOR THAT, THE SUN LINE OF SIGHT, LOS WILL BE 70 DEGREES.

SC ROGER.

CAP COM AT 97 + 40, PROGRAM 52.

SC ROGER, IS THAT OPTION THREE?

CAP COM STAND BY. BE AT C-ALIGN TIME. AT 98 HOURS, THE TEST, THE SCT STAR COUNT WILL BE PERFORMED.

SC AT WHAT TIME?

CAP COM 98 HOURS.

SC 98?

CAP COM AFFIRMATIVE.

SC I DON'T UNDERSTAND THAT. THAT'S RIGHT IN THE MIDDLE OF THE NIGHT ... ISN'T IT?

CAP COM YEAH, BUT IT CONTINUES INTO THE DAY.

SC ... THAT'S GOING TO BE A LITTLE HARD TO -- YOU REALIGN AT 97:40 AND THEN DO THE TEST AT ...

CAP COM ROGER, ADJUST ON THE FURTHER EDGE OF LOS. IF YOU READ, THAT IS AFFIRMATIVE.

SC ROGER.

PAO THIS IS APOLLO CONTROL 88 HOURS 2 MINUTES INTO THE MISSION. WE HAVE LOST ACQUISITION. THE NEXT CONTACT WILL BE WITH THE REDSTONE TRACKING SHIP AT 88 HOURS 58 MINUTES INTO THE MISSION, SOME 57-1/2 MINUTES FROM NOW. AT 88:02 THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 885800 (CDT 3:01) 291/1

PAO THIS IS APOLLO CONTROL, 88 HOURS,
58 MINUTES INTO THE MISSION OF APOLLO 7. WE HAVE HAD A
LONG DRY SPELL HERE. WE ARE COMING UP ON THE REDSTONE
TRACKING SHIP. WE SHOULD HAVE ACQUISITION IN A VERY FEW
SECONDS.

SC ROGER, HOUSTON, GO.

CAPCOM ROGER. ACQUISITION, REDSTONE. I HAVE
ONE FINAL ITEM HERE ON THE FLIGHT PLAN UPDATE.

SC READY TO GO.

CAPCOM ROGER. AT 99 PLUS 30, WE WILL HAVE A
G & N, N AND SCS POWER DOWN.

SC ROGER.

CAPCOM APOLLO 7, HOUSTON, 1 MINUTE LOS REDSTONE,
ANTIGUA AT 17. AND WHEN WE COME UPON ANTIGUA, WE WOULD
LIKE FOR YOU TO BE IN POO. WE'LL HAVE A STATE VECTOR FOR
YOU AT THAT TIME.

PAO THIS IS APOLLO CONTROL, 89 HOURS,
7 MINUTES INTO THE MISSION OF APOLLO 7. WE ARE JUST NOW
LOSING ACQUISITION AT REDSTONE. WE'RE ANTICIPATING CONTACT
WITH ANTIGUA AT 89 HOURS, 17 MINUTES. AT 8907, THIS IS
APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET 891600 CDT 3:20 A 292/1

PAO THIS IS APOLLO CONTROL, 89 HOURS 17 MINUTES INTO THE MISSION OF APOLLO 7. APOLLO 7 HAS JUST BEGUN ITS 57TH REVOLUTION AROUND THE EARTH. WE'RE COMING UP IN A VERY SECONDS TO ANTIGUA ACQUISITION. LET'S LISTEN IN.

CAPCOM APOLLO 7, HOUSTON.
SC ROGER, GO.
CAPCOM ROGER. WE HAVE A STATE VECTOR TO SEND TO YOU IF YOU COULD GO TO POO PLEASE.

SC STAND BY.
CAPCOM APOLLO 7, HOUSTON. IF YOU DON'T GET YOUR COMPUTER UP HERE, IT'S ALL RIGHT. WE CAN GIVE THIS TO YOU AT CANARY, BUT I DO HAVE A NAV CHECK I CAN GIVE YOU WHEN YOU'RE READY TO COPY IT.

SC ROGER, STAND BY. I'M STILL ON A 51 HERE.

CAPCOM OKAY.
SC ... HOUSTON, APOLLO 7.
CAPCOM GO.
SC ROGER. I'LL TAKE THAT UPDATE NOW IF YOU CAN SEND IT UP.

CAPCOM ROG.
SC GO TO ACCEPT IF YOU WANT TO UPLINK.
CAPCOM ROG.
CAPCOM AND NOW WHILE IT'S COMING UP, I HAVE A NAV CHECK HERE WHEN YOU'RE READY TO COPY.

SC ROGER.
SC READY FOR YOUR NAV CHECK, BILL.
CAPCOM ROGER. 092 05 00 00 - 1796 - 14661 1566. READ BACK.

SC ROGER. 092 05 0000 - 1796 - 14661 1566.

CAPCOM READBACK IS CORRECT,
CAPCOM APOLLO 7, HOUSTON. ABOUT 1 MINUTE LOS ANTIGUA.

SC ROGER.
CAPCOM AND IT WILL BE CANARY AT 28.

SC ROG.
PAO THIS IS APOLLO CONTROL, 89 HOURS 23 MINUTES INTO THE MISSION. WE ARE ABOUT 20 SECONDS AWAY FROM LOSS OF SIGNAL OVER ANTIGUA. WE HAVE ABOUT 5 MINUTES TO GO FOR CANARY ISLANDS TRACKING STATION ACQUISITION AT 89 HOURS 24 MINUTES. THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 892800, CDT 3:30 293/1

PAO THIS IS APOLLO CONTROL, 89 HOURS 28
MINUTES INTO THE MISSION. WE'RE COMING UP ON ACQUISITION
WITH CANARY ISLANDS TRACKING STATION. WE'LL JOIN THE CON-
VERSATION.

SC ... APOLLO 7, GO.
CAPCOM ROGER. WE WOULD LIKE FOR YOU TO TACKLE
THE - STAND BY.

SC APOLLO 7, HOUSTON. WHICH OF YOUR O2
CAPCOM TANK FANS IS OFF?

SC NUMBER 2 IS OFF.
CAPCOM NUMBER 2 IS OFF. ROGER. THAT'S WHAT
WE THOUGHT.

SC APOLLO 7, HOUSTON. WE ARE THROUGH WITH
CAPCOM THE COMPUTER.

SC ROGER.
CAPCOM APOLLO 7, HOUSTON. WE'D LIKE FOR YOU
TO CYCLE YOUR O2 TANK 2 FANS ON FOR 5 MINUTES, THEN OFF.

SC ROGER.
CAPCOM APOLLO 7, HOUSTON. ONE MINUTE LOS
CANARY. CARNARVON AT 05. HEAR THIS FOR A TIME HACK, YOU CAN
TURN THOSE FANS BACK OFF ABOUT 38.

SC ROGER.
PAO THIS IS APOLLO CONTROL, 89 HOURS 35
MINUTES. WE'RE LOOKING FOR A PASS OVER CARNARVON AT 90
HOURS AND 5 MINUTES. AT 89 35 THEN, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 900600 (CDT 4:20 A) 294/1

PAO THIS IS APOLLO CONTROL 90 HOURS 6 MINUTES INTO THE MISSION, LET'S JOIN THE CONVERSATION TO CARNARVON.

CAP COM APOLLO 7, HOUSTON.

SC HOUSTON, APOLLO 7. GO.

CAP COM ROGER. ACQUISITION CARNARVON STANDING BY.

SC ROGER.

CAP COM AH, DONN, I NOTICED YOU WERE GOING THROUGH THE MALFUNCTION PROCEDURE THERE APPEARED TO BE JUST ABOUT THE TIME WE WERE LOSING YOU AT CANARIES, DID YOU FIND OUT ANYTHING IN THAT?

SC ROGER. I FOUND OUT WHATEVER IT WAS WENT AWAY, I THINK, AT LEAST UP TO NOW.

CAP COM WHATEVER IT WAS WENT AWAY, HUH?

SC RIGHT.

CAP COM DID YOU ARRIVE AT THAT JUST FROM GOING THROUGH THIS MALFUNCTION PROCEDURE? IS THAT HOW YOU DID THAT?

SC WELL, NOT TOTALLY.

CAP COM OKAY.

SC WAIT UNTIL WALLY GETS UP HERE. HE MAY WANT TO DO IT AGAIN.

CAP COM OKAY.

PAO THIS IS APOLLO CONTROL, 90 HOURS 09 MINUTES INTO THE MISSION OF APOLLO 7. WE HAVE HAD LOSS OF SIGNAL AT CARNARVON TRACKING STATION AND IT'S A MATTER OF ABOUT 10 MINUTES BEFORE HONEYSUCKLE CREEK AT ACQUISITION SO WE'LL JUST STAND BY. (PAUSE) THIS IS APOLLO CONTROL 90 HOURS 17 MINUTES INTO THE MISSION OF APOLLO 7. IT DOESN'T APPEAR WE'LL HAVE ANY FURTHER CONTACT. WE HAVE ABOUT A MINUTE AND ONE-HALF OF ACQUISITION LEFT AT HONEYSUCKLE BUT THERE WILL PROBABLY BE NO MORE VOICE CONTACT. WE ARE ANTICIPATING ACQUISITION AT REDSTONE TRACKING SHIP AT 90 HOURS 32 MINUTES. AT 90 HOURS 17 MINUTES THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 903200 (CDT 4:37) 295/1

PAO THIS IS APOLLO CONTROL, 90 HOURS,
32 MINUTES INTO THE MISSION OF APOLLO 7. WE ARE COMING
UP ON THE REDSTONE TRACKING SHIP NOW IN THE FIFTY-SIXTH REVO-
LUTION. LET'S LISTEN IN.

CAPCOM APOLLO 7, HOUSTON, ACQUISITION REDSTONE,
STANDING-BY. APOLLO 7, HOUSTON. 1 MINUTE LOS, REDSTONE,
ANTIGUA AT 5 ZERO.

SC UNDERSTAND, ROGER. I GATHER YOU WERE
IN KIND OF A HURRY TO GET US TO WORK DOWN THERE TODAY.

CAPCOM WE'LL GO A FEW THINGS, ROGER.

SC I SUGGEST SOMEBODY FOR TOMORROW GET TO
WORK ON THE SLEEP PLAN BECAUSE I'VE HAD AN HOUR OF SLEEP
ALREADY.

CAPCOM ROGER.

SC AND THREE HAVE COLDS, I ASKED FOR AN
ACTIFED FOR EACH OF US LAST NIGHT AND THAT APPARENTLY WAS
IGNORED. HOUSTON, APOLLO 7.

CAPCOM ROGER, GO. WE'RE JUS ABOUT TO LOS.

PAO THIS IS APOLLO CONTROL, 9 HOURS,
40 MINUTES INTO THE MISSION OF APOLLO 7. WE'VE JUST LOST
ACQUISITON - AND OUR NEXT ACQUISITON POINT WILL BE AT
ANTIGUA AT 90 HOURS AND 50 MINUTES. IT APPEARS THAT SPACE-
CRAFT COMMANDER IS UP AT THIS POINT. AND THERE WAS SOME
CONVERSATION WITH CAPCOM ON THE AMOUNT OF SLEEP THAT SHOULD
BE SCHEDULED IN THE COMING DAYS OF THE MISSION. AT 90 HOURS,
41 MINUTES IN THE FIFTY-SEVENTH REVOLUTION, THIS IS APOLLO
CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 905000 CDT:4:51A 296/1

PAO THIS APOLLO CONTROL, 90 HOURS 50 MINUTES INTO THE MISSION OF APOLLO 7. WE'RE COMING UP IN ACQUISITION WITH ANTIGUA TRACKING STATION. LET'S STAND BY FOR CONVERSATION.

CAPCOM APOLLO 7, HOUSTON.

SC HOUSTON, APOLLO 7.

CAPCOM ROG. I DID CHECK ON THE FLIGHT PLAN HERE REGARDING THE WISE QUERY THERE OVER REDSTONE AND I DIDN'T GET ALL OF IT, BUT IT WAS SOMETHING ABOUT THE SLEEP CYCLE BEING SHORTENED. AND WHEN I CAME ON, THE TIME LINE SHOWED THE COMMANDER AND LMP SLEEP CYCLE EXTENDED TO 91 HOURS. IS THAT THE WAY YOU UNDERSTOOD IT?

SC THAT'S AFFIRMATIVE. IT APPEARS THAT SOMEONE MOVED THE RADIATOR TEST RIGHT IN THE MIDDLE OF IT. WE GOT THE RADIATOR TEST INITIATED AT 92 30.

CAPCOM ALL RIGHT, STAND BY.

SC WE'RE JUST GONNA HAVE TO PUT ON OUR HEADSETS AND GO TO WORK UP HERE.

CAPCOM APOLLO 7, HOUSTON. WE ACKNOWLEDGE THE ERROR ON THE GROUND HERE.

SC OKAY, LET'S HAVE THE GROUND GET TO WORK AND WORK UP THEIR SLEEP REST CYCLES. WE HAD TO INITIATE THE REQUEST, AS IT WAS TO GET ONLY 5 HOURS PER SHIFT SLEEP SCHEDULED FOR THIS LAST NIGHT. I ASKED FOR AN EXTENSION AND GOT IT. I WANT THE REST OF THESE WORK PERIODS WORKED OUT NOW. WE HAD BURN 3 AND WE HAVE TO HAVE A CHANCE TO GET SOME SLEEP.

CAPCOM APOLLO 7, HOUSTON, UNDERSTAND.

SC HOUSTON, APOLLO 7.

CAPCOM GO.

SC ROG, BILL. CAN YOU CHECK - I THINK I'D LIKE TO GO AHEAD AND TRY TO ACTIVATE OUR PRIMARY WATER BOILERS BEFORE WE COMMENCE THE RADIATOR DEGRADATION TEST. AND THEN IF WE HAVE ANY PROBLEMS WHILE DOING THE RADIATOR DEGRADATION TEST, AND OUR PRIMARY WATER BOILER GOES DOWN, FIND OUT IF IT'S OKAY TO ACTIVATE THE SECONDARY LOOP WITH A RADIATOR BYPASS. OVER.

CAPCOM ROG, STAND BY.

CAPCOM ROG, WALT. I HAVE SOMETHING HERE AND I THINK IT'S PRETTY CLOSE TO WHAT YOU SAID. I'LL GO THROUGH A RECOMMENDED PROCEDURE HERE.

SC OKAY, SOMETHING I'LL HAVE TO WRITE DOWN OR NOT?

CAPCOM NO, WHY DON'T YOU LET ME DO IT FIRST. I THINK IT COULD BE JUST WHAT YOU WANTED THERE.

SC ROGER.
STEP 1, PRIOR TO TEST, RESERVICE EVAPORATOR, IF NOT ALREADY RESERVICED. STEP 2, BEGIN THE ACTUAL TEST. STEP 3, ACTIVATE PRIMARY EVAPORATOR IN AUTO MODE. STEP 4, IF EVAPORATOR DRIES OUT, CLOSE BACK PRESSURE CONTROL VALVE AND WAIT 15 MINUTES.

CAPCOM 5, THEN RESERVICE EVAPORATOR AND REACTIVATE IN AUTO MODE. 6, IF EVAPORATOR DRIES OUT AGAIN, CLOSE BACK PRESSURE VALVE AND SHUT DOWN EVAPORATOR. 7, CONTINUE TEST. 8, IF EVAPORATOR OUT COUNT EXCEEDS 80 DEGREES FAHRENHEIT, ACTIVATE SECONDARY LOOP WITH RADIATORS BYPASSED AND CONTINUE TEST.

SC ONLY ONE QUESTION WITH THAT. THE 80 DEGREES FAHRENHEIT - THE RULE IN THE PAST HAS BEEN ACTIVATE SECONDARY LOOP IF THE TEMPERATURE OF THE GLYCOL EVAPORATOR OUTLET EXCEED 60. CAN YOU CONFIRM THAT?

CAPCOM STAND BY.

CAPCOM APOLLO 7, HOUSTON. REGARDING THE 80 DEGREE COUNT, THEY SAY THEY ARE WILLING TO GO THAT HIGH IF YOU ACTIVATE THE SECONDARY LOWER THAN THAT, IT COMPROMISES THE TEST. I SAID THAT I THOUGHT WE OUGHT TO GO AHEAD AND LOOK, WORK IT AT 60 AND THEY'RE CHECKING INTO IT.

SC OKAY, UNDERSTAND. I DON'T THINK THERE'S ANY GREAT BIG PROBLEM WITH LETTING IT GO A LITTLE HIGHER, RON. I THINK WE'VE GOT A GOOD CHANCE OF NOT HAVING TO ACTIVATE IT ANYWAY, BUT THAT'S JUST A SUGGESTION NOW.

CAPCOM OKAY.

SC BILL, I MEAN, SORRY.

CAPCOM APOLLO 7, HOUSTON.

SC ROGER. GO AHEAD, BILL.

CAPCOM HEY WALT, I HAVE A TFE RECORDING PLAN FOR THIS RADIATOR DEGRADATION TEST AND I'D LIKE TO PASS IT TO YOU OVER CANARY AT A TIME THAT IT WOULD BE CONVENIENT. IT HAS TO DO WITH LEAVING IT IN A HIGH BIT RATE FOR PORTIONS OF THE TEST.

PAO THIS IS APOLLO CONTROL, 90 HOURS, 58 MINUTES INTO THE MISSION OF APOLLO 7. WE HAVE CANARY ISLANDS ACQUISITION COMING UP AT 91 HOURS, 2 MINUTES, WHICH IS 3 MINUTES FROM NOW. WE'LL JOIN THE CREW AT THAT TIME AT CANARY ISLANDS. IN THE MEANTIME, YOU HEARD ASTRONAUT SCHIRRA TALKING TO CAPCOM POGUE HERE IN THE CONTROL CENTER CONCERNING THE SLEEP CYCLE THAT HAS BEEN SHORTENED. SCHIRRA INDICATES THAT 5 HOURS PER SHIFT SCHEDULE IS NOT ENOUGH AND HE'D LIKE A CHANCE TO GET SOME MORE SLEEP. AND THE GROUND IS GONNA CHECK INTO IT. ASTRONAUT CUNNINGHAM THEN TALKED ABOUT THE PROCEDURES ON THE RADIATOR DEGRADATION THAT IS SCHEDULED A LITTLE LATER ON IN THE FLIGHT, SOME 92 HOURS 35 MINUTES. WITH ABOUT 2 MINUTES TO WAIT UNTIL CANARY ISLANDS ACQUISITION THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 910200 (CDT 5:05 A) 297/1

PAO THIS IS APOLLO CONTROL 91 HOURS 02 MIN-
UTES INTO THE MISSION OF APOLLO 7. WE ARE COMING UP INSIDE
OF 25 SECONDS OR SO WITH CANARY ISLANDS ACQUISITION. WE'LL
STAND BY FOR FURTHER CONVERSATION.

CAP COM APOLLO 7, HOUSTON.
SC ROGER HOUSTON, GO AHEAD.
CAP COM ROGER. ACQUISITION CANARY.
SC ROGER. DID THE 02 PART COMPRESSOR
THIS MORNING ABOUT, AH, ALMOST 33 MINUTES AGO WAS 240 MILLI-
METERS OF MERCURY, READY TO COPY YOUR RECORDING UPDATE.

CAP COM ROG.
SC HOUSTON, APOLLO 7.
CAP COM GO.
SC HOUSTON, APOLLO 7.
CAP COM APOLLO 7, HOUSTON GO.
SC ROGER. WISH TO FILE REPORT THAT THE
HAND CONTROLLER IS GO.
CAP COM ROG. HAND CONTROL IS GO.
SC THAT'S AFFIRMATIVE. THE ANOMALY HAS
DISAPPEARED AND I'M QUITE SURPRISED YOU ALL WEREN'T SOMEWHAT
CONCERNED ABOUT THAT, THAT WIPED OUT OUR HYBRID DE-ORBIT FOR
AWHILE.

CAP COM WE WERE CONCERNED.
SC YOU'LL HAVE TO TIME THIS FOR ME SO
I CAN GET A CLERICAL TEST.
CAP COM ROG. THERE WAS QUITE A LOT OF CONCERN
DOWN HERE.
SC ROGER. TAKES A WHILE TO CHECK THOSE
THINGS OUT.
CAP COM ROG. ALSO --
SC GO.
CAP COM OKAY, ON THE DSC RECORDING FOR RADIA-
TOR DEGRADATION TEST, AH, I'LL READ A FEW COMMENTS FIRST FOR
RADIATOR DEGRADATION TEST SPACECRAFT WILL BE LEFT IN HIGH
BIT RATE. SPACECRAFT COM SYSTEM WILL BE SET UP FOR HIGH BIT
RATE RECORD, HIGH COMMAND. AT THE FOLLOWING TIMES, PLACE
THE TAPE RECORDER FORWARD SWITCH TO FORWARD FOR 3 MINUTES
THEN TO OFF. READY TO COPY TIMES? AT 92 + 57, 93 + 37,
94 + 29, 95 + 08, 96 + 01, 96 + 33. COMMENT - DO NOT USE
UP TELEMETRY COMMAND RESET SWITCH DURING RADIATOR DEGRADATION
TEST. NOTE: YOU CAN ONLY RECORD VOICE WHILE TAPE IS RUNNING
AS SCHEDULED ABOVE.

SC OKAY. I'VE GOT THE TIMES IN AND I'D
LIKE TO REPEAT THE LAST COMMENT. THE ATTENTION IS TO AH,
I ASSUME YOU ARE GOING TO REWIND AND LEAVE US WITH A FRESH
ROLL OF TAPE TO START WITH? AND, WE'LL PUT IT FORWARD, I
ALSO UNDERSTOOD YOU WERE GOING TO LEAVE IT WITH MY COMMAND
HERE AND I'LL HAVE TO HIT COMMAND RESET SWITCH AT THE START

APOLLO 7 COMMENTARY, 10/15/68, GET: 910200 (CDT 5:05 A) 297/2

SC OF TEST, I WILL GO TO FORWARD FOR 3 MINUTES AND THEN TO OFF AT THE FOLLOWING TIMES: 92 + 57, 93 + 57, 94 + 29, 95 + 06, 96 + 01, 96 + 33. OVER.

CAP COM ROGER. THE SECOND TIME WAS 93 + 37 AND ALSO YOU DO NOT GO TO COMMAND RESET.

SC OKAY. UNDERSTAND YOU ARE GOING TO HAVE EVERYTHING SET UP AND ALL I WILL USE IS TAPE RECORDER CLOSING SWITCH GOING FORWARD AT THOSE TIMES.

CAP COM THAT'S AFFIRMATIVE.

SC AND WE CAN RECORD AT THE TIME THE TAPE IS RUNNING. WAS THERE ANYTHING ELSE IN THAT LAST COMMENT?

CAP COM NEGATIVE. THAT'S CORRECT. YOU CAN ONLY RECORD VOICE WHILE TAPE IS RUNNING AS SCHEDULED AT THESE TIMES AND YOU DID GET --

SC ROGER AND I ASSUME YOU GOT A PLAN TO DUMP ALL THAT OUT AND GIVE US A FRESH TAPE AS SOON AS POSSIBLE AFTERWARDS. DID YOU READ MY COMMENT THAT 91 HOURS INTO THE FLIGHT O2 PARTIAL PRESSURE WAS 240 MILLIMETERS OF MERCURY?

CAP COM ROGER, AT 91 HOURS O2 PARTIAL PRESSURE 240 MILLIMETERS. ALSO, WE'RE SETTING UP FOR A 10 HOUR SLEEP CYCLE FOR TONIGHT.

SC 10 HOURS IS (PAUSE), HOW ABOUT 8? BILL, WE CAN'T DO THAT, SLEEP FIVE AND WORK NINE AND TEN THE NEXT. TRY TO GET THROUGH AN AVERAGE OF EIGHT. WE'LL GO FOR 8 WE'LL GO FOR 8 ... 20.

CAP COM OKAY.

PAO THIS IS APOLLO CONTROL 91 HOURS 11 MINUTES INTO THE MISSION OF APOLLO 7. WE HAVE LOST ACQUISITION WITH CANARY ISLANDS. WE ARE ANTICIPATING CARNARVON ACQUISITION AT 91 HOURS 37 MINUTES. DURING THIS LAST PASS, WE HEARD SCHIRRA INDICATE THAT THE NUMBER TWO HAND CONTROLLER IS GO. THAT WAS A SITUATION THAT OCCURRED YESTERDAY AND THAT WAS AT SOME 82 HOURS INTO THE MISSION WHERE THEY FOUND THAT THE PITCH DOWN ON THE NUMBER TWO HAND CONTROLLER WAS INOPERATIVE AND NOW CHECKING IT WITH THE COMMAND MODULE COMPUTER WE FIND THAT THE NUMBER TWO HAND CONTROLLER IS GO AND THAT ANOMALY HAS DISAPPEARED SCHIRRA INDICATES. CAP COM POGUE INDICATED THAT DOWN ON THE GROUND HERE IN THE CONTROL CENTER THEY HAD IRONED OUT A 10 HOUR SLEEP CYCLE FOR TONIGHT AND SPACECRAFT COMMANDER SCHIRRA CAME BACK WITH "NO, WE DIDN'T NEED 10, WOULD LIKE TO HAVE 8". SO IT LOOKS LIKE THAT'S WHAT IT WILL BE. AT 91 HOURS 12 MINUTES INTO THE MISSION, THIS IS APOLLO CONTROL.

END OF TAPE

PAO THIS IS APOLLO CONTROL, 91 HOURS,
37 MINUTES INTO THE MISSION OF APOLLO 7. WE ARE NOW COMING
UP INTO ACQUISITION, JUST GOT ACQUISITION WITH CARNARVON.
LET'S LISTEN TO THE CONVERSATION.

CAPCOM APOLLO 7, HOUSTON, ACQUISITION CARNARVON.
SC ROGER, HOUSTON.

CAPCOM APOLLO 7, I HAVE A COUPLE OF ITEMS.
FIRST, IN REFERENCE TO THE SECONDARY LOOP ACTIVATION DURING
THE RADIATOR TESTS, WE HAVE RECONFIRMED THAT 80% AS EVAP OUT
TEMP IS AN ACCEPTABLE HARDWARE LIMIT. HOWEVER, SECONDARY
LOOP MAY BE ACTIVATED BEFORE 80% F AS PHYSICAL COMFORT
DICTATES. TWO, IN REFERENCE TO THE HAND CONTROLLER ANOMALY,
WE WOULD LIKE TO KNOW WHICH CHECK OR TEST DID YOU USE TO
VERIFY THE ACCEPTABLE PERFORMANCE?

SC ROGER, WE USED THE STANDARD MALFUNCTION
PROCEDURE STARTING WITH THE C & CS APOLLO UPDATE. AFTER
PASSED THAT TEST, WENT ON WITH THE REENTRY, IT WAS ON
PAGE 15. PAGE 7, ITEM 2, ITEM 14, AND THEN THE FINAL WAS
THE TREND ITSELF IN WHICH THE COMMAND WOULD NORMALLY OCCUR.
IT DID NOT OCCUR THERE AGAIN.

CAPCOM ROGER.

SC ZERO. AND THERE WAS A DISCREPANCY WITH
THE MALFUNCTION OF THE FUEL THAT ONLY APPLIED. THIS IS A
SERIES WHERE THE CONTROLS ARE STUCK ON, WHERE THE MALFUNCTION-
ING OCCURRED, THE FUNCTION DID NOT OCCUR.

CAPCOM ROGER.

SC BY THE SAME TESTS THERE, THE APOLLO
NUMBER ONE REGISTERED AND THE DSKY WOULD BE 75 FOR PITCH
DOWN. IT WAS STUCK ON 75 WHICH ADD IMMEDIATELY; IT DOES NOT
SHOW.

CAPCOM ROGER.

SC BILL, DO YOU WANT ME TO FOLLOW THE
PROCEDURE THAT WAS PASSED UP THE FIRST TIME WE REACTIVATED
THE PRIMARY WATER VALVE I HAD SEVERAL STEPS HERE. I THINK
YOU WERE PROBABLY THERE WHEN YOU PASSED IT UP EVEN.

CAPCOM STANDBY A MINUTE.

SC DO YOU RECALL A WHAT?

CAPCOM YES, WE KNOW, WE WANT TO CONFIRM.

SC AND WHEN YOU GET IT, WE CAN USE A CHART

UPDATE, PLEASE?

CAPCOM ROGER. APOLLO 7, HOUSTON, HAVE A CHART

UPDATE.

SC GO.

CAPCOM 57 NODE AT 89 PLUS 16, PLUS 24, 71.4 1/4
WEST.

SC ROGER.

CAPCOM OKAY. APOLLO 7, HOUSTON. YES, WE WOULD
LIKE FOR YOU TO ACTIVATE JUST AS YOU DID YESTERDAY.

SC OKAY. AND IF IT CHECKS DOWN, YOU WANT

SC TO WAIT 15 MINUTES AGAIN, RIGHT?
CAPCOM AFFIRMATIVE.
SC JUST FOR MY OWN INFORMATION, WHAT IS
A 15 MINUTE WAIT, IF IT SHUT DOWN LIKE THAT?
CAPCOM STANDBY. APOLLO 7, HOUSTON, WE WILL
GET THAT ANSWER. IT WILL TAKE A FEW MINUTES.
SC OKAY, THANKS, BUT YOU UNDERSTAND I JUST
WONDERED WHY WE WAIT 15 MINUTES BEFORE WE TRY TO RESERVICE
THE THING. I DON'T QUITE UNDERSTAND IT.
CAPCOM OKAY. APOLLO 7, HOUSTON. I'VE BEEN
INFORMED THAT FLASH FREEZING IS THE REASON FOR WAITING
15 MINUTES.
SC ROGER, THANK YOU. IS THAT ANY RELATION
TO FLASH GORDON?
CAPCOM OH BOY.
SC THE FIRST OH BOY FOR THE FLIGHT.
CAPCOM RIGHT. GOT ME AGAIN.
SC THAT'S THE FIRST OH BOY WE'VE LOST FOR
THE FLIGHT. I'M HAVING BACON AND TOAST AND PEACHES AND -
CAPCOM APOLLO 7, HOUSTON, COMING UP ON LOS
CARNARVON, S-BAND VOLUME UP, PLEASE.
SC HOUSTON, APOLLO 7.
CAPCOM APOLLO 7, HOUSTON, GO.
SC ROGER. DO YOU HAVE ANY PREFERENCE ON
THE ANTENNA FOR THE RADIATOR DEGRADATION TESTS?
CAPCOM STANDBY. APOLLO 7, HOUSTON, WE ARE
WORKING ON IT. APOLLO 7, HOUSTON, THE ANTENNA FOR RADIATOR
DEGRADATION TEST WILL BE ON THE ALPHA. THERE MAY BE POSSI-
BLY BE A SWITCH TO BRAVO. BUT NOW IT LOOKS LIKE A IS A
GOOD ONE.
SC ROGER, BILL. WE'VE GOT SOME BEAUTIFUL
PICTURES OF THE GREAT BARRIER REEF IN NEW ZEALAND THIS
MORNING.
CAPCOM GOOD. HOW MANY FRAMES ROUGHLY? ALL
RIGHT, DISREGARD.
SC IT WAS ABOUT 5 FRAMES, SOME FRAMES
43 TO 47. WE WEREN'T QUITE SURE WHERE WE WERE UNTIL WE GOT
THAT CHART UPDATE. THERE WAS BETWEEN 38 - 43 TO 47 ON
MAGAZINE F.
CAPCOM ROGER. APOLLO 7, HOUSTON, 1 MINUTE
UNTIL LOS, TEXAS AT 19.
CAPCOM ROGER.
PAO THIS IS APOLLO CONTROL, 91 HOURS,
53 MINUTES INTO THE MISSION OF APOLLO 7. DURING THAT
LENGTHY PASS - FROM CARNARVON THROUGH HONEYSUCKLE CREEK, WE
HEARD ABOUT THE RADIATOR DEGRADATION TESTS. THEY ARE COOR-
DINATING WITH ASTRONAUT POGUE AT THE CONTROL CENTER ON THAT.
AND ON THE NUMBER HAND CONTROLLER CHECK AND AT THE VERY LAST
YOU HEARD THE CREW HAD BEAUTIFUL PICTURES OF THE GREAT BARRIER

APOLLO 7 COMMENTARY, 10/15/68, GET: 913700, (CDT 5:40A) 298/3

PAO REEF IN NEW ZEALAND, ABOUT 5 FRAMES.
WE ARE ANTICIPATING ACQUISITION AT TEXAS 92 HOURS 19 MINUTES
INTO THE MISSION. IT IS NOW 91 HOUR 54 MINUTES. THIS
IS APOLLO CONTROL

END OF TAPE

PAO THIS IS APOLLO CONTROL 92 HOURS 19 MINUTES INTO THE MISSION OF APOLLO 7. WE ARE JUST COMPLETING THE 58TH REVOLUTION AND WE'RE APPROACHING - SHOULD BE AT THE POINT OF TEXAS ACQUISITION. LET'S LISTEN IN.

CAP COM APOLLO 7, HOUSTON THROUGH TEXAS.

SC ROGER, JACK GO.

CAP COM AH, ROGER, STANDING BY. DONN, HOW ARE YOU THIS MORNING?

SC FINE JACK.

CAP COM APOLLO 7, HOUSTON.

SC ROGER, GO AHEAD.

CAP COM ROGER. WE'D LIKE TO KNOW WHETHER YOU HAVE SHOWN ANY RESTARTS ON THE COMPUTERS SINCE WE LAST TALKED TO YOU AT CARNARVON.

SC THAT'S AFFIRMATIVE. WE'RE NOW FLYING ATTITUDE FOR THE ... DEGRADATION. I LOADED P-30 INCORRECTLY THE FIRST TIME, AM LOADING P-30 - AM TRYING TO LOAD IT CORRECTLY. WE ENDED UP WITH AN INSOLVABLE PROBLEM HERE AND GOT A RESTART ON IT.

CAP COM OKAY. THANKS WALT.

SC ... TABULATE GETTING THE ATTITUDE. WHY DON'T WE GIVE YOU A HACK AT THE START TIME WHEN WE START THE RADIATOR DEGRADATION TEST, IT MAY BE A FEW MINUTES AFTER 92:35?

CAP COM OKAY, THAT'S FINE. (PAUSE) AH, WALT, WE SHOW TWO RESTARTS HERE SINCE WE LAST SAW YOU AT CARNARVON.

SC ...

CAP COM AH, SO.

SC WE'RE STILL IN THE P-30 AND WE PROCEEDED TO THE END - AH, TRYING TO PROCEED TO THE END OF P-30 AND IT STILL DIDN'T LIGHT THE ANSWER AND THEN WE JUST REFLECTED THROUGH.

CAP COM OKAY, FINE. (PAUSE) APOLLO 7, HOUSTON. WE'RE NOT RECEIVING ANY BIOMED DATA, DO YOU HAVE THE HARNESS HOOKED UP?

SC ROGER. WE HAVE (CUT OUT) CDR CONNECTED AND ... RADIATOR TEST.

CAP COM ROGER. UNDERSTAND.

SC ... RIGHT NOW.

CAP COM SAY AGAIN WALT?

SC HE'LL BE BACK ON BIOMED IN ABOUT ...

CAP COM OKAY, WE'LL BE STANDING BY. (PAUSE)

APOLLO 7, HOUSTON YOU HAVE A GO FOR 77 DASH 1.

SC ROGER. GO 77 ONE. WE WILL BE IN ATTITUDE AND STARTING THE DEGRADATION TEST ON TIME.

CAP COM ALRIGHT, COPY. ABOUT TO LOSE YOU OVER BERMUDA, PICK YOU UP CANARIES AT 92:36.

SC ROGER.

PAO THIS IS APOLLO CONTROL 92 HOURS 33 MINUTES INTO THE MISSION OF APOLLO 7. WE ANTICIPATE ACQUIRING AT CANARY AT 92:36, THAT'S ABOUT THREE MINUTES FROM NOW. WE WILL JUST STAY UP UNTIL WE ACQUIRE AT CANARIES AND GO THROUGH THE CANARY PASS AND AT THE END OF CANARY PASS WE'LL HAVE A WRAP UP OF THE LAST EIGHT HOURS OF ACTIVITY. AT 92:33 THIS IS APOLLO CONTROL STANDING BY FOR CANARY ISLANDS.

CAPCOM APOLLO 7, HOUSTON THROUGH CANARY.
SC (GARBLE)
CAPCOM ROGER, COPY THAT.
SC THE EVAPORATOR SEEMS TO BE WORKING
FOR NOW. I WOULDN'T - I DON'T KNOW HOW LONG WE CAN COUNT
ON IT.

CAPCOM ROGER.
CAPCOM APOLLO 7, HOUSTON. WE WOULD LIKE
TAPE RECORDER FORWARD SWITCHED TO OFF AND THEN YOUR DSE
WILL BE CONFIGURED FOR THIS PASS.

SC TAPE RECORDER FORWARD IS OFF.
SC JACK, WE HAVE THE WATER BOILER OP-
ATING, BUT IT (GARBLE) SEEMS TO BE DRIVING US AGAINST THE
(GARBLE) HERE. LOOKS LIKE IT IS GOING TO COST US MORE THAN
WE HAD THOUGHT IT WOULD.

CAPCOM ROGER.
CAPCOM APOLLO 7, 1 MINUTE LOS TANANARIVE,
CARNARU N AT 9311.

SC ROGER.
PAO THIS IS APOLLO CONTROL, 92 HOURS
43 MINUTES INTO THE MISSION. WE ARE ABOUT 20 SECONDS AWAY
FROM LOSS OF SIGNAL AT THE CANARY ISLANDS NOW. WE WILL
HAVE A RECAP HERE OF THE NIGHT'S ACTIVITIES FOR THE LAST
8 HOURS. AT 85 HOURS 18 MINUTES IN REVOLUTION 54, IT WAS
INDICATED BY ASTRONAUT EISELE THAT HE HAD TAKEN TWO ASPIRIN
AND ONE DECONGESTANT TABLET AT THE TIME OF HIS SLEEP CYCLE,
AND 20 CLICKS OF WATER. THAT EQUALS 10 OUNCES OF WATER.
THE COMMANDER OF THE SPACECRAFT, SCHIRRA, AND THE LM PILOT,
CUNNINGHAM, ENTERED THE EEP PERIOD AT 84 HOURS IN THE
MISSION. SCHIRRA HAD TAKEN TWO ASPIRIN AND 20 CLICKS OF
WATER. AGAIN, THAT IS 10 OUNCES. THEN THERE WAS A VERY
STABLE PERIOD ON DOWN THROUGH 89 HOURS 28 MINUTES AT WHICH
TIME THE CAPCOM, ASTRONAUT POGUE HERE AT THE CONTROL CENTER,
WENT THROUGH AN EXERCISE ON THE O2 TANK, THE OXYGEN TANK,
FANS. THERE WAS NO PROBLEM, IT WAS JUST INDICATING WHICH
FANS WERE ON AND WHICH FANS WERE OFF ON THE CYCLING. AT
CARNARVON, 90 HOURS 05 MINUTES, IT WAS INDICATED BY EISELE
THAT THE NUMBER 2 HAND CONTROLLER, WHICH HAD GIVEN A LITTLE
PROBLEM YESTERDAY, PITCHED DOWN POSITION I BELIEVE, MIGHT
BE OKAY AND THAT IT WOULD BE CHECKED WHEN ASTRONAUT SCHIRRA
WOKE UP. THEY WOULD CHECK THE INPUT TO THE COMMAND MODULE
COMPUTER TO SEE HOW THE HAND CONTROLLER WOULD OPERATE DUR-
ING BURN. AT 90 HOURS 32 MINUTES, ASTRONAUT SCHIRRA AWOKE
AND INDICATED THAT HE WOULD LIKE TO HAVE HIS SLEEP SCHEDULE
IRONED OUT. AT 90 HOURS 49 MINUTES, CAPCOM POGUE TALKED TO
HIM AGAIN AND SCHIRRA INDICATED THAT 5 HOURS PER SHIFT OF
SLEEP WAS NOT REALLY ENOUGH AND THAT HE WOULD LIKE A CHANCE
TO GET SOME SLEEP, MORE THAN 5 HOURS, AND HAVE THE GROUND
CHECK ON IT. HE ALSO INDICATED THAT THE NUMBER 2 HAND

APOLLO 7 COMMENTARY, 10/15/68, GET: 923400 (CDT 06:38 A) 300/2

PAO CONTROLLER IS GO. IT WAS GREEN FOR GO AND THAT THE ANOMALY HAD DISAPPEARED, SO HE HAD CHECKED THE HAND CONTROLLER. POGUE THEN INDICATED THAT 10 HOUR SLEEP CYCLES WOULD GO ON FOR TONIGHT IN THE FLIGHT PLAN. SCHIRRA INDICATED THAT THEY DIDN'T NEED 10 BUT THEY WOULD LIKE TO GET 8 HOURS OF SLEEP. THEY THEN CHECKED THE PROCEDURES AGAIN AT 91 HOURS 37 MINUTES FOR THE RADIATOR DEGRADATION TEST AND THE NUMBER 2 HAND CONTROLLER CHECK THAT SCHIRRA HAD INDICATED CAME OUT THAT THE CONTROLLER WAS GO. SCHIRRA INDICATED AT THAT TIME THAT HE HAD GOTTEN BEAUTIFUL PICTURES OF THE GREAT BARRIER REEF AT NEW ZEALAND. THAT'S ABOUT IT FOR THE EVENING. THERE WASN'T TOO ACTIVE A PERIOD, THERE. THE SPACECRAFT LOOKS TO BE IN GOOD CONDITION, WE ARE IN REV 59 RIGHT NOW. WE HAVE THE TV SCHEDULE THIS MORNING FOR 60TH REVOLUTION AT 95 HOURS 25 MINUTES 55 SECONDS INTO THE MISSION, WHICH WOULD BE 92840 CENTRAL DAYLIGHT TIME AND THAT'S IT. WITH EVERYTHING LOOKING GOOD, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 931045 (CDT: 7:20A) 301/1

PAO THIS IS APOLLO CONTROL. 93 HOURS, 10 MINUTES INTO THE MISSION. WE ARE COMING UP ON ACQUISITION RIGHT ABOUT NOW WITH CARNARVON HERE IN A VERY FEW SECONDS, SO LET'S STAND BY AND SEE WHAT OCCURS.

CAPCOM APOLLO 7, HOUSTON.

SC GO JACK.

CAPCOM OKAY, WALT, ON YOUR QUESTION ON THE FUEL USAGE AND MINIMUM IMPULSE, FUEL USAGE IS ABOUT .01 POUNDS FOR EACH ENGINE THAT PULSES, SO IF YOU ARE USING 2 JETS FOR EACH AXIS, IT'S .02 POUNDS EVERY TIME IT PULSES.

SC A HUNDRED PULSES TO A POUND.

CAPCOM YES, SO YOU ARE GOING TO GET - YOU CAN GET 100 JETS FIRINGS PER POUND.

SC ROGER; UNDERSTAND. THANK YOU VERY MUCH. WE HAD 35 MINUTES WORTH AT ABOUT 10 PULSES; 9 TO 10 PULSES A MINUTE.

CAPCOM OKAY, COPY THAT.

SC NOW WE ARE DOWN TO 2 TO 4 PULSES A MINUTE

CAPCOM ROGER; UNDERSTAND. AND WE HAVE GOT ABOUT 30 SECONDS TILL WE LOSE YOU HERE; YOU WANT TO TURN UP YOUR S BAND VOLUME, AND WE'LL PICK YOU UP OVER HSK.

SC ROGER.

PAO THIS IS APOLLO CONTROL. WE STILL HAVE ACQUISITION AT HONEYSUCKLE IN AUSTRALIA. THE QUESTION THAT ASTRONAUT CUNNINGHAM IS TALKING TO ASTRONAUT SWIGERT HERE IN THE CONTROL CENTER ABOUT, IS ONE ABOUT RCS PROPELLANT; THE AMOUNT BEING USED. THIS HAS TO BE USED BECAUSE THE RCS SYSTEM IS USED DURING THE RADIATION DEGRADATION TEST, WHICH NOW IS GOING ON TO KEEP THE SPACECRAFT IN A STEADY MODE. AND THAT'S WHY HE REFERS TO THE 9 OR 10 PULSES PER MINUTE TO BEGIN WITH, AND NOW AT 2 TO 4 PULSES PER MINUTE AND THEY ARE NOT CONCERNED MIGHTILY, BUT THEY WOULD LIKE TO KNOW HOW MUCH FUEL, HOW MUCH PROPELLANT THAT IS NOW USING. WE WILL JOIN THEM NOW AT HONEYSUCKLE AGAIN,

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 932545 (CDT 7:35A) 302/1

PAO THIS IS APOLLO CONTROL 93 HOURS 26 MINUTES
INTO THE MISSION - 27 MINUTES INTO THE MISSION. WE HAVE JUST
HAD LOSS OF SIGNAL AT HONEYSUCKLE CREEK. WE'RE ANTICIPATING
GUAYMAS AT 93 49. AT 93 27 THIS IS APOLLO CONTROL

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 935025 (CDT 07:56A) 303/1

PAO AND A GOOD, GOOD MORNING FROM THE BLACK TEAM, WHICH IS BACK ON DUTY IN THE CONTROL CENTER, 93 HOURS 50 MINUTES INTO THE MISSION. WE HAVE CALLED UP THE CREW FROM GUAYMAS AND HERE IS HOW THAT CONVERSATION IS GOING.

CAPCOM APOLLO 7, HOUSTON THROUGH GUAYMAS.

SC ROGER JACK.

CAPCOM ROGER, YOU ARE FINE.

SC ROGER.

CAPCOM I WOULD LIKE TO ASK YOU HOW THE H2 STRATIFICATION TEST WENT.

SC WE HAVEN'T DONE THAT TEST YET. IF THINGS GET PRETTY WELL SETTLED DOWN, I WILL GO AHEAD AND RUN IT, BUT IT'S NOT CRITICAL AND I'M NOT AT 50 PERCENT YET ON EITHER GAGE.

CAPCOM ROGER, UNDERSTAND. AND ALSO, I WOULD LIKE TO VERIFY THE POSITION OF - THAT THE HAND CONTROL POWER SWITCH IS AT BOTH.

SC THAT IS CORRECT.

CAPCOM OKAY, FINE.

PAO THIS IS APOLLO CONTROL. WE ARE IN THE MIDST OF A RADIATOR TEST AND THIS TEST WILL CONTINUE FOR ONE FULL REVOLUTION. ESSENTIALLY, THE MODE IS TO - THERE ARE TWO RADIATOR - BANKS OF RADIATORS ABOARD APOLLO 7 AND THEY OCCUPY ABOUT 130 DEGREE STRIP AROUND THE COMMAND MODULE. THE RADIATOR 1 BANK IS BEING ISOLATED AND POINTED DOWN TOWARD EARTH, THUS POINTING RADIATOR 2 ON THE OPPOSITE SIDE OUT TOWARD DEEP SPACE. THE TEST WILL - WE WILL WATCH VERY CAREFULLY THE PERFORMANCE, THE ABILITY OF RADIATOR 2 TO TAKE CARE OF THE LOAD OF KEEPING APOLLO 7 COOL ENOUGH DURING ONE FULL REVOLUTION AROUND THE EARTH. HERE IS SOME MORE CONVERSATION.

SC - INSPECTED RADIATOR 2.

CAPCOM APOLLO 7, AFFIRMATIVE. WE CAN VERIFY THAT, WE ARE WATCHING IT.

SC ALSO, IF EVERYTHING IS RUNNING NOMINAL ON THIS THING, WE OBVIOUSLY DON'T HAVE ANY BATTERY DEGRADATION. IS THERE ANY REASON FOR -

CAPCOM SAY AGAIN, 7. YOU GOT CUT OUT.

SC STAND BY. IS THERE ANY REASON FOR RUNNING IT THE FULL 4-1/2 HOURS IF WE FIND THAT THE RADIATORS ARE WORKING GOOD? IT WOULD BE NICE IF WE COULD SAVE THE FUEL IF WE COULD DRAW CONCLUSIONS EARLIER.

CAPCOM ROGER, 7. IF IT'S AT ALL POSSIBLE, WHEN WE LOOK AT THIS THING WE WILL TRY TO CUT IT OFF EARLY.

SC ROGER, UNDERSTAND. YOU KNOW WHAT I'M GETTING AT, JACK.

CAPCOM YES, I DO.

APOLLO 7 COMMENTARY, 10/15/68, GET: 935025 (CDT 07:56A) 303/2

PAO THIS IS APOLLO CONTROL. YOU HEARD WALT CUNNINGHAM DISCUSSING THE RADIATOR TEST. IT IS NOT A REAL CONCERN, BUT THE FACTS ARE THAT SOME 21 POUNDS OF FUEL ARE PROGRAMED TO CONTINUE TO MAINTAIN THIS ATTITUDE FOR THE RADIATOR TEST. AND THAT WAS WHAT WALT CUNNINGHAM WAS REFERRING TO WHEN HE SAID "YOU KNOW WHAT I'M GETTING AT." IT WAS FUEL USAGE, AND HIS POINT WAS, IF THE RADIATOR IS OPERATING SATISFACTORILY, WHY GO AHEAD AND TEST FULL DURATION, AND EVERY INDICATION IS THAT IT IS OPERATING QUITE SATISFACTORILY. THE CREW IS PROBABLY PERFORMING A FUEL CELL OXYGEN PURGE AT THIS POINT, AND AS THEY MOVE AROUND ON THE ATLANTIC SIDE, THEY WILL START TO UNSTOW THEIR TELEVISION EQUIPMENT FOR A TV PASS ON THE NEXT REVOLUTION.

PAO APOLLO CONTROL HERE. DURING THIS QUIET PERIOD, WE MIGHT MAKE MENTION OF THE FACT THAT IN THE COURSE OF THE NIGHT, WE RECEIVED A TELEGRAM WHICH READS AS FOLLOWS: HEY, GUYS, FIRST YOU STEAL MY SONG HOUSTON, AND NOW YOU STEAL MY QUOTE "KEEP THEM LETTERS AND CARDS COMING," AND IT'S 10 TO 1 WHEN YOU LAND YOU WILL START DRINKING. P.S. LIKE ALL AMERICANS, I'M PROUD OF YOU. SECOND P.S. I WAS HIGHER LAST NIGHT THAN YOU ARE NOW. SIGNED DEAN MARTIN.

PAO APOLLO CONTROL HERE. THE WEATHER STORY THIS MORNING GOES LIKE THIS. THE WEST ATLANTIC, PARTLY CLOUDY, EASTERLY WINDS 20 KNOTS, SEAS RUNNING TO 5 FEET, TEMPERATURE IN THE MID-70'S. IN THE EASTERN ATLANTIC, MOSTLY CLEAR, WINDS EASTERLY 12 TO 18 KNOTS, SEAS 3 TO 5 FEET, TEMPERATURES IN THE MID-70'S. IN THE WEST PACIFIC, THE WEATHER WILL BE FAIR, PARTLY CLOUDY, WINDS FROM THE NORTH TO NORTHEASTERLY AT 12 TO 15 KNOTS, SEAS ABOUT 5 FEET, TEMPERATURES RANGE IN THE UPPER 70'S. IN THE MID-PACIFIC, AREA IS FAIR TO PARTLY CLOUDY, WINDS PREDOMINANTLY SOUTH AT 15 KNOTS, SEAS 5 FEET, TEMPERATURES IN THE UPPER 70'S OR LOW 80'S. HERE IS SOME MORE CONVERSATION.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 940100 (CDT 8:06A) 304/1

CAPCOM APOLLO 7, HOUSTON.
SC ROGER.
CAPCOM ROGER, WE WOULD LIKE TO SEND YOU A NEW
STATE VECTOR. WOULD YOU GO TO ACCEPT.
SC OKAY, WHY DON'T WE TAKE A CHECK. WE'LL
TURN THE MONITORS UP ON IT, BUT (GARBLE). JACK, CAN YOU
WAIT ABOUT 1/2 HOUR TO PLAY, WE'RE USING THAT 5 BY.
CAPCOM ALRIGHT, I FIGURED THAT, BUT WHAT WE
WOULD LIKE TO DO IS TO GIVE YOU A -.
SC THAT'S OKAY JACK, I'LL TURN LOOSE BECAUSE
OF THIS.
CAPCOM OKAY. WE CAN SEND THIS AT CANARY, IF
YOU WOULD RATHER WAIT.
SC IT'S CLEAR NOW.
CAPCOM OKAY, COMING UP. APOLLO 7, I'M READY
TO GIVE YOU THE NAV CHECK PAD WHEN YOU ARE READY TO COPY.
SC HOLD ONE.
SC WE'LL TAKE IT LATER.
CAPCOM OKAY, JUST LET ME KNOW WHEN YOU ARE READY.
APOLLO 7, HOUSTON, WE ARE THROUGH WITH THE UPDATE, THE
COMPUTER IS YOURS.
SC RIGHT.
CAPCOM APOLLO 7, HOUSTON, YOU CAN TURN YOUR
02 TANK 2 FANS OFF.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 941100 (CDT 8:16A) 305/1

CAPCOM APOLLO 7, HOUSTON THROUGH THE CANARIES
STANDING BY.
SC DO YOU WANT TANK 2 FANS ON FOR 5 MINUTES?
CAPCOM ROGER, YOU CAN TURN THEM OFF NOW. DID
YOU HAVE THEM ON FOR 5 MINUTES, WALLY?
SC NEGATIVE. WE HAVEN'T TURNED THEM OFF
YET. YOU WANT THE TANK 1 FANS ON FOR 5 MINUTES, RIGHT?
WE HAVE NUMBER 2 ON NOW.
CAPCOM OKAY, WALLY. NUMBER 1 SHOULD BE IN AUTO
AND NUMBER 2 SHOULD BE ON FOR 5 MINUTES AND THEN OFF.
SC WE HAD NUMBER 2 ON FOR 5 MINUTES.
CAPCOM OKAY, THEN YOU CAN CUT THEM OFF WHENEVER
YOU ARE READY.
SC DO YOU WANT THAT ON OR AUTO? 2 WAS IN
AUTO. DO YOU WANT IT ON?
CAPCOM OKAY, AFTER 5 MINUTES, WALLY, TANK 2
FANS SHOULD BE OFF.
CAPCOM APOLLO 7 HOUSTON. WE AREN'T READING
THE CDR'S BIOMED DATA. WOULD YOU SWITCH TO LMP? OH, 7,
WE JUST GOT CDR DATA.
SC ROGER (GARBLED)
CAPCOM AND I HAVE THIS NAS CHECK DATA PAD TO
PASS UP TO YOU WHENEVER YOU ARE READY.
SC GO AHEAD.
SC GO AHEAD, JACK.
CAPCOM OKAY, THE NAS CHECK GEP IS 094 PLUS 15
PLUS 00 00 PLUS 2310 MINUS 01215 0898.
SC REPEAT THE WHOLE THING, WILL YOU PLEASE,
JACK?
CAPCOM ROGER. GEP IS 094 PLUS 15 PLUS 00 00
PLUS 2310 MINUS 01215 089.8.
SC ROGER 094 15 4 BALLS PLUS 2310 01215 0898.
CAPCOM ROGER, THAT'S GOT IT.
SC WHAT'S THE OUTLOOK IN HOUSTON TODAY?
CAPCOM ROGER, WE'RE ABOUT 30 SECONDS LOS
CANARY, TANANARIVE AT 94 PLUS 30.
SC ROGER. DO YOU HAVE NEWS IN HOUSTON?
CAPCOM OH, IT WAS REAL FINE THIS MORNING.
SC GARBLED.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 943000 (DCT: 8:36A) 306/1

PAO THIS IS APOLLO CONTROL HOUSTON, 94 HOURS,
30 MINUTES INTO THE FLIGHT. WE ARE ABOUT TO ACQUIRE THROUGH
THE TANANARIVE STATION, AND LET'S MONITOR THIS CONVERSATION.
THE CALL HAS NOT YET GONE OUT, BUT I EXPECT IT TO MOMENTARILY.

CAPCOM APOLLO 7, HOUSTON THROUGH TANANARIVE.
SC (GARBLE)

CAPCOM ROGER; YOU'RE LOUD AND CLEAR. WE MONITORED
YOUR FUEL REAL CLOSELY DURING THAT FIRST REV IN THE RADIATOR
DEGRADATION TEST, AND WE SHOW A USAGE OF APPROXIMATELY 5 POUNDS,
AND WE ARE REALLY WATCHING IT. WE'LL LET YOU KNOW. AND I'LL
LET GINO READ YOU THE MORNING NEWS.

GINO GOOD MORNING UP THERE.

SC ROGER. THIS IS SURE (GARBLE)

GINO WALLY, THIS IS GINO. I'VE GOT A LITTLE
NEWS IF YOU WANT TO READ - LISTEN.

SC (GARBLE).

GINO 7, THIS IS HOUSTON.

SC THIS IS APOLLO 7; GO.

GINO WALT, I GOTTA LITTLE MORNING NEWS HERE
IF YOU WOULD LIKE US TO SEND IT UP.

SC YEAH, GO AHEAD. GO AHEAD GINO.

GINO OKAY, THIS MORNING THE HEADLINES HAVE
STARRED YOUR BURN YESTERDAY, YOUR LAST BURN AS "PERFECT".
HOWEVER, IT GOES ON TO SAY THERE WAS A 9 MINUTE BURN.

SC BEAUTIFUL.

GINO RANDY MATSON WON AN OLYMPIC GOLD MEDAL
IN HIS SHOT YESTERDAY AND SO DID HOUSTON'S JIM HINES WHO
WON THE 100 METER DASH IN 9.9.

SC THAT'S (GARBLE)

CAPCOM AND THE ASTRO'S LOST 4 BALL PLAYERS TO
THE MONTREAL TEAM IN THE EXPANSION DRAFT IN THE NATIONAL BASEBALL
LEAGUE.

SC WHO DID THEY LOSE?

CAPCOM STAND BY. WE'LL GET THAT FOR YOU LATER;
I'M NOT SURE. ONE OF THE NEWS SERVICES ALSO PICKED SOUTHERN
CAL AS THE NUMBER 1 COLLEGE TEAM IN THE NATION, AND I THINK
DON WILL APPRECIATE THIS NEXT STATEMENT. SOMEHOW WHEN
OHIO STATE MANAGED TO SLIP BY THE BOILER MAKERS LAST SATURDAY,
THEY SLIPPED INTO THE SECOND RANKING.

SC ROGER; I'M SURPRISED THEY ARE NOT

FIRST.

CAPCOM I DON'T KNOW HOW THEY WON THAT SATURDAY.
HEY, IT LOOKS LIKE YOUR CARDS AND LETTERS ARE COMING IN HERE
REAL STRONG NOW OVER THE PAST 24 HOURS, AND YOUR TV RATINGS
ON THE MONDAY MORNING SHOW ARE PRETTY HIGH.

SC (GARBLE) ON THE TODAY SHOW, OR WERE WE
ON IT?

CAPCOM YOU ARE GOING TO HAVE A COUPLE HUNDRED
MILLION PEOPLE STANDING BY. AS A MATTER OF FACT, WITH A
LITTLE WORK, WE HAVE MANAGED TO BOOK YOU FOR ANOTHER WEEK.

APOLLO 7 COMMENTARY, 10/15/68, GET: 943000 (CDT: 8:36A) 306/2

SC WE'VE GOT OUR STRAW HATS; WE'LL TRY TO
MAKE A SHOW.
CAPCOM OKAY, WALLY; IT WAS REALLY A GOOD SHOW
YESTERDAY. THE ASTRO'S LOST BATEMAN, BRAND, DUKE AND HERRERRA.
SC (GARBLE) CATCHER. THE WEATHER LOOKS
REAL - LOOKS GOOD TODAY (GARBLE)
CAPCOM ROGER.
SC I'LL DO (GARBLE) 40 NOSE, SMALL HAND -
JUST SOUTH OF (GARBLE).
CAPCOM ROGER, WALLY.
SC SMALL AND SIMILAR TO THE (GARBLE) TYPE.
CAPCOM SOUNDS LIKE YOU GUYS ARE RIDING A REAL
CADILLAC UP HERE; THINGS HAVE BEEN GOING REAL GOOD FROM WHERE
WE SIT.
SC (GARBLE) -COMFORTABLE SUIT (GARBLE)
CAPCOM YOU ARE 1 MINUTE LOS TANANARIVE. WE'LL
SEE YOU AT CARNARVON.
PAO THIS IS APOLLO CONTROL, HOUSTON. THAT
WILL WRAP UP THE CONVERSATION BY TANANARIVE, THE MORNING
NEWS PASSED ALONG AT 94 HOURS, 36 MINUTES INTO THE FLIGHT.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 944700 (CDT 8:57A) 307/1

PAO THIS IS APOLLO CONTROL HOUSTON, 94 HOURS, 48 MINUTES INTO THE FLIGHT. WE'RE IN CONTACT WITH THE CREW BY CARNARVON AND THEY'RE GETTING AN UPDATE. THE FLIGHT PLAN FOR THE NEXT 1 HOUR SHOWS JUST TWO ITEMS, UNSTOW AND SET UP TV, WHICH SHOULD HAVE ALREADY BEEN DONE ACCORDING TO THE FLIGHT PLAN. THEN IT HAS AN ITEM TV ON AT 9525, WHICH IS TEXAS ACQUISITION. THE LOS BY MERRITT ISLAND IS SHOWN ON OUR FLIGHT PLAN AS 9537, 9537. LET'S LISTEN TO THE CONVERSATION.

CAPCOM APOLLO 7, HOUSTON THROUGH CARANRVON.
SC ROGER. JACK, WE WERE A LITTLE LATE ON THAT LAST 3 MINUTE TAPED BUSINESS. IT SHOULDN'T BE THAT TAPE, I DON'T THINK SO.

CAPCOM ALRIGHT, COPY THAT WALT.
SC JACK, CAN WE HAVE A CHART UPDATE, PLEASE?
CAPCOM COMING UP, STANDBY.

SC ROGER.
CAPCOM OKAY, READY FOR YOUR MAP UPDATE?
SC GO.

CAPCOM OKAY, FOR REV 60, THE TIME OF THE MODE IS 95 PLUS 11 PLUS 44, LONGITUDE 162.3 WEST, RIGHT ASCENSION OF 05 PLUS 02.

SC THANKS JACK. IN A CALL, THAT'S REAL GREAT THE WAY THEY COME UP WITH IT IN A HURRY. I APPRECIATE IT.

CAPCOM ROGER.
SC JACK, WE'RE GOING TO NEED AN UPDATE ON STATESIDE SO WE CAN LET DONN GO TO SLEEP FOR THE NEXT HOUR.
CAPCOM OKAY, WE'LL FIGURE THAT OUT WALLY.
SC (GARBLE) ALL (GARBLE) UP (GARBLE) REGROUP THAT. AT 10:00 AM CAPE TIME WE'RE GOING TO GO TO BED.

CAPCOM ROGER.
SC (GARGLE).
CAPCOM OKAY.

SC JACK, DO WE HAVE A TV PASS TODAY.

CAPCOM RIGHT, YOU HAVE A TV PASS, WALLY.

SC OKAY, WE'LL BE ON TOP.

CAPCOM OKAY, THE TIME OF TV WILL BE ABOUT 95 PLUS 25, WHICH IS ABOUT - OH, ABOUT 45 MINUTES FROM NOW. APOLLO 7, HOUSTON, DO YOU WANT TO TURN UP YOUR S-BAND, SO WE CAN PICK YOU UP OVER HONEYSUCKLE.

SC ROGER. THIS IS APOLLO 7.

CAPCOM GO AHEAD APOLLO 7.

SC ROGER, I'D USE THAT GRAY TAPE THAT PAUL - TAPE THAT BOB (GARBLE) TOGETHER, THAT KEPT COMING APART. IT'S NOT THAT EASY TO TAPE THE MICROPHONE TOGETHER AND THE LIGHT WEIGHT HEAD SET, WHICH STARTS COMING APART. THE GRAY TAPE IS PRETTY GOOD GEAR.

CAPCOM ROGER, COPY THAT.

APOLLO 7 COMMENTARY, 10/14/68, GET: 944700 (CDT 8:57A) 307/2

CAPCOM APOLLO 7, HOUSTON.

SC GO AHEAD HOUSTON.

CAPCOM WALLY, ON THE SLEEP CYCLE THERE, WE
HAVE 96 TO 116 BLOCKED OUT FOR A CREW SLEEP CYCLE. THIS CAN
BE USED IN ANY WAY THAT THE CREW SEES FIT FOR SLEEPING
ARRANGEMENTS.

SC VERY GOOD. WELL JACK, GOOD OLE SCENE
IN SIGHT HERE AGAIN. I HAVE PERTH AT NIGHT. HOUSTON,
DID YOU READ? HOUSTON, APOLLO 7.

CAPCOM APOLLO, HOUSTON, COPY THAT.

SC ROGER. THAT'S THE HOME OF SLOANS LAGER
WHERE THEY HAVE THAT GOOD BEER THESE DAYS.

CAPCOM ALRIGHT. WALLY, THEY HAD AN EARTHQUAKE
AT PERTH TWO DAYS AGO.

SC OH REALLY, THAT'S TERRIBLE.

END OF TAPE

APOLLO 7 COMMENTARY 10/15/68, GET: 945700 (CDT 9:02A) 308/1

CAPCOM APOLLO 7, HOUSTON, WE ARE ABOUT 1 MINUTE
FROM LOS HONEYSUCKLE, WE'LL PICK YOU UP AT HUNTSVILLE AT
95 17.

SC ROGER.
PAO APOLLO CONTROL HOUSTON HERE. 95 HOURS
EVEN. AND THAT WRAPS UP THE CONVERSATION FROM AUSTRALIA.
WE EXPECT TO ACQUIRE VIA THE GOOD SHIP HUNTSVILLE AT - LET'S
CHECK THAT - 95 HOURS AND 17 - 17 MINUTES FROM NOW. THIS
IS APOLLO CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 951650 (CDT 09:22A) 309/1

PAO THIS IS APOLLO CONTROL HOUSTON 95 HOURS 16 MINUTES INTO THE FLIGHT, AND WE ARE GETTING SOME CARRIER NOISE ON THE CIRCUIT OUT THROUGH THE HUNTSVILLE. IT HAS NOT PUT IN A CALL YET TO APOLLO 7 NOR HAVE THEY ATTEMPTED TO REACH US. MEANWHILE, THE HUNTSVILLE HAS CONFIRMED NOW AND APOLLO 7 HAS BEEN TOLD THAT WE ARE STANDING BY. WE HAVE NOT HEARD FROM THEM. THE RADIATOR TEST MEANWHILE, CONTINUES. IT WILL RUN ON, PRESENTLY SCHEDULED TO RUN THROUGH THE HUNTSVILLE, ACCORDING TO MY FLIGHT PLAN HERE. WELL, AT LEAST THROUGH PRETORIA 96 HOURS. MEANWHILE, LET'S MONITOR THE CIRCUIT GOING OUT THROUGH THE HUNTSVILLE.

PAO THAT IS CAPSULE COMMUNICATOR JACK SWIGERT YOU ARE HEARING RIGHT NOW. THE OTHER CAPCOM ON THE CONSOLE IS GENE CERNAN.

PAO IN GENERAL, THIS MORNING WE PLANNED TO ASK THE CREW TO GIVE US A GOOD LOOK AROUND THE SPACECRAFT AND SHOW US A LITTLE OF THEIR INTRAVEHICULAR ACTIVITIES, THE MOVEMENTS, THE EASE OF MOVEMENTS FROM HERE TO THERE. WE WILL WATCH AND SEE WHAT COMES OUT.

SC JACK, UNDERSTAND TV TIME NOW AT 95 + 25, OVER.

CAPCOM ROGER. YOUR TV TIME IS 95 + 25.

SC JACK, IF WE START TRANSMITTING THE TV AT 25, HOW SOON DO YOU PEOPLE SEE THAT IN THE CENTER?

CAPCOM WALT, IT HAS TO GO THROUGH THE SCAN CONVERTER AND IT DOESN'T TAKE TOO LONG. WE GET IT FAIRLY SOON.

SC (GARBLE)

CAPCOM I COULDN'T GET THAT, WALT. HUNTSVILLE ISN'T REAL GOOD, BUT WE WILL CATCH YOU AT CALIFORNIA.

SC ROGER. DO OUR FIRST TV TRANSMISSIONS GO THROUGH TEXAS AND THEN IN THE END WE ARE TRANSMITTING THROUGH THE CAPE?

CAPCOM THAT IS AFFIRMATIVE.

PAO THIS IS APOLLO CONTROL HOUSTON 95 HOURS 22 MINUTES INTO THE FLIGHT. YOU HAVE BEEN LISTENING TO JACK SWIGERT UPDATE WALT CUNNINGHAM ON THE PASS OF THE TV TRANSMISSION AND HOW WE RECEIVE THEM HERE IN THE CONTROL CENTER. THE PASS IS TO - WE EXPECT ACQUISITION AROUND 26, 27 MINUTES AFTER THE HOUR, THAT IS OF THE TELEVISION SIGNAL. TEXAS STATION SHOULD ACQUIRE 25 MINUTES, 9525. AND IF WE HAVE AN OPEN CIRCUIT, WE WILL JUST CONTINUE TO MONITOR.

PAO APOLLO CONTROL HERE. OF INTEREST IS THE FACT THAT MRS. EISELE, THE WIFE OF THE COMMAND MODULE PILOT IS HERE IN THE CONTROL CENTER THIS MORNING ALONG WITH HER PARENTS. HARRIET EISELE IS FROM GNADENHUTTEN, OHIO.

APOLLO 7 COMMENTARY, 10/15/68, GET:951650 (CDT-09:22A) 309/2

PAC THIS IS APOLLO CONTROL AT 9524. THE PEOPLE WHO MAINTAIN THE CENTER HAVE PUT THE - PUT TWO LARGE SCREENS AVAILABLE UPON OUR DATA BOARD SO ALL THE FLIGHT CONTROLLERS CAN GET A BIG LOOK AT THE PICTURES. AND AT THIS POINT, WE ARE BEGINNING TO SEE A LITTLE SNOW. IT'S 9525, WE ARE BEGINNING TO SEE A LITTLE SNOW AS WE DID YESTERDAY JUST PRIOR TO - THE NETWORK JUST ADVISED THAT HE HAD A MINOR NETWORK PROBLEM WITH OUR STATION IN GUAYMAS OR WE HAVE COVERED IT THROUGH THE GOLDSTONE, CALIFORNIA STATION. IT SHOULD NOT GIVE US A PROBLEM ON TV. WE ARE SEEING SOME SNOWY LINES ON THE SCREEN AT THIS POINT. AND EISELE HAS JUST PUT IN A CALL "DO YOU SEE ANYTHING YET?"

END OF TAPE

-7 COMMENTARY, 10/15/68, GET: 952500 (CDT 9:31A) 310/1

PAO AND EISELE HAS JUST PUT IN A CALL DO WE SEE ANYTHING YET ON THE TV AND WE DO NOT. TEXAS NOW HAS THE CARRIER LOCKED UP AND NOW WE'RE BEGINNING TO SEE A LITTLE SOMETHING THAT'S COMING THROUGH. HERE WE GO. LETS HAVE A LOOK. IT'S A LITTLE LIGHTER THAN YESTERDAY. NOW IT'S CLEARED UP.

CAPCOM WE'RE JUST GETTING - JUST STARTING TO PICK YOU UP NOW.

CAPCOM OKAY, WE'RE STARTING TO PICK YOU UP. YOU'RE LOOKING GOOD. IT'S A GOOD PICTURE. WE CAN SEE THE STRAPS IN THE CENTER SEAT ZERO G.

SC ROGER. CAN YOU SEE ME? I'M IN THE LEFT SEAT.

CAPCOM AFFIRMATIVE.

SC OKAY.

PAO THAT'S DONN EISELE TALKING, NOW HE'S HOLDING UP A SIGN.

CAPCOM "THE LOVELY APOLLO ROOM, HIGH ATOP EVERYTHING."

SC THAT'S RIGHT. COMING TO YOU LIVE FROM OUTER SPACE, THE ONE AND ONLY, ORIGINAL APOLLO EVERYTHING ROAD SHOW. STARRING THOSE GREAT ACROBATS OF OUTER SPACE WALLY SCHIRRA AND WALT CUNNINGHAM.

CAPCOM JUST A MINUTE WALLY, LET'S SEE. OH, IT'S A LITTLE MESSAGE TO DEKE SLAYTON. A LITTLE BIT CLOSER, WALLY. KIND OF LOOKS LIKE SOMETHING ABOUT "ARE YOU A, ARE YOU A - " LOOKS LIKE IT SAYS "ARE YOU A TURTLE, DEKE SLAYTON?"

SC THAT'S RIGHT.

SC YOU'VE GOT ACE READING TODAY, JACK.

CAPCOM HERE COMES ANOTHER ONE. WALT, OH, THAT A WAY, THAT'S THE WAY TO TURN IT. IT SAYS, "PAUL HANEY, ARE YOU A TURTLE?"

SC YOU'LL GET A GOLD STAR. PERFECT SCORE.

CAPCOM AND THERE IS NO REPLY FROM PAUL HANEY, HERE.

SC YOU MEAN HE'S SPEECHLESS?

CAPCOM APOLLO 7, HOUSTON. WILL YOU CLOSE THE BACK PRESSURE VALVES AND GO TO INCREASE?

SC ROGER, STAND BY.

CAPCOM IT'S A REAL GOOD PICTURE.

SC ROGER.

CAPCOM YOU MIGHT TAKE US ON A LITTLE TOUR OF YOUR CAPSULE THERE, IF YOU HAVE A CHANCE.

SC OKAY, STANDBY.

SC I THINK WE CAN WORK THAT OUT. LET'S TAKE IT OFF THE BRACKET AND PAN THE COCKPIT A LITTLE BIT.

SC AT THIS POINT WE ARE LOOKING ACROSS THE COCKPIT AND WALT CUNNINGHAM'S COUCH TOWARD DONN EISELE WHO

APOLLO 7 COMMENTARY, 10/15/68, GET: 952500 (CDT 9:31A) 310/2

SC IS PREPARING THE SPACECRAFT FOR THE RADIATOR DEGRADATION TEST. THERE YOU SEE A PEN CRUISING BY AND I NEED TO MAKE SOME NOTES, OBVIOUSLY. FROM THERE WE CONCENTRATE ON THE LEFT SEAT'S ATTITUDE CONTROL. YOU CAN SEE POSSIBLY TWO OF THE INSTRUMENTS FOR ATTITUDE CONTROL OVER THERE. IN THE SECOND PANEL WE HAVE THE SWITCHES THAT THE MACHINE, THAT ARE COMPLICATED TO FLY, AND WE MONITOR OUR SYSTEMS ON THIS SIDE. AT THIS POINT WALT CUNNINGHAM IS

PAO YOU WILL NOTICE WALT CUNNINGHAM REACHED OUT AND RECOVERED A PENCIL FLOATING THERE. A VERY POSITIVE DEMONSTRATION OF WEIGHTLESSNESS. APOLLO CONTROL HERE.

SC LOOKING ACROSS THE COCKPIT TO THE RIGHT WE HAVE MOST OF OUR ELECTRICAL POWER CONTROLS, FUEL CELL CONTROLS. THEN AS WE CONTINUE ACROSS THE COCKPIT WE'LL COME TO THE RIGHT SIDE AND THAT WINDOW WHERE YOU CAN SEE THE GULF COAST OUTSIDE AND WITH THE WEATHER AND WINDS WE'VE GOT SURF GALORE.

CAPCOM THE OUTSIDE DOESN'T SHOW TOO WELL DUE TO THE ORB RATE, WALLY.

SC THEY ARE NOW GOING TO WORK THEIR WAY DOWN INTO THE LOWER EQUIPMENT BAY BELOW THE NAVIGATION STATION. HERE YOU CAN SEE THE HEART OF THE NAVIGATION SYSTEM OF THE APOLLO SPACECRAFT, THE COMMAND MODULE THAT IS, THE SEXTANT AND TELESCOPE, THE NEAR LARGE OBJECT IS A MONOCULAR TYPE DEVICE IS THE TELESCOPE AND ADJACENT TO IT, THE SMALL INSTRUMENT IS THE SEXTANT. WE ACQUIRE A KNOWN STAR IN THE TELESCOPE AND THEN ACQUIRE IN THE SEXTANT WHERE IT CAN BE MARKED ON A RATHER CAREFULLY GRADUATED G.MBAL TO GIVE US THE EXACT POSITION OF THE STAR.

SC I'M NOW PANNING OVER TO WALLY WHO IS GOING TO GET THE TELEPHOTO LENS OUT OF ITS STOWAGE COMPARTMENT AND WE'LL ATTEMPT TO DO THE OUT-THE-WINDOW PHOTOGRAPHY.

CAPCOM WALT, THE OUT-THE-WINDOW DOESN'T SHOW UP VERY WELL, WALT, DUE TO THE ORB RATE -

SC DO YOU WANT TO SKIP THE OUT-THE-WINDOW?

CAPCOM WE'D LIKE YOU TO KEEP IT INSIDE. THE ORB RATE JUST MAKES IT IMPOSSIBLE TO SEE MUCH OUTSIDE.

SC ROGER UNDERSTAND. OKAY.

CAPCOM WALLY, THIS IS GENE. DEKE JUST CALLED IN AND WE'VE GOT YOUR ANSWER AND WE'VE GOT IT RECORDED FOR YOUR RETURN.

SC ROGER. REAL FINE. WE'LL NOW SHOW YOU THE LOWER EQUIPMENT BAY WHERE WE HAVE THE WATER CONTROL AND OXYGEN CONTROL PANELS AND ONE PANEL WHERE WE CAN ALSO CHANGE THE LITHIUM HYDROXIDE IN FLIGHT, TO CHANGE OUT WHEN NEEDED. I'VE JUST OPENED ONE OF OUR FOOD BAYS AND WHEN I PULLED THE SWITCH DOWN YOU'LL NOTICE THAT WE HAVE A REAL GOOD PACKAGE THAT IS PORTABLE. THIS BAY IS SO EMPTY. WE'LL SWITCH

APOLLO 7 COMMENTARY, 10/15/68, GET: 952500 (CDT 9:31A) 310/3

SC TO ANOTHER BAY, STARTING TOMORROW. THIS IS AN EMPTY FOOD BAY WITH FOOD ROLLED UP RATHER TIGHTLY FOR THE FIRST 4 DAYS OF CONSUMPTION. OUR DIETICIAN, RITA RAPP, WILL APPRECIATE HOW TIGHTLY WE REPACKAGED THE EMPTY PACKETS OF FOOD. AND NOW, WE WILL ROTATE THE CAMERA AROUND THROUGH THE LOWER EQUIPMENT BAY BACK OUT TOWARDS THE COCKPIT. I'M SURE THE SPAGHETTI THAT YOU SEE, WHICH IS THE COAX CABLE, THAT I'M HOLDING. WALT CUNNINGHAM IS WORKING WITH OUR EXERCISE DEVICE. USING AN (GARBLE) MOTION TO STIMULATE HIS CARDIO VASCULAR SYSTEM. YOU CAN TAKE THE SAME DEVICE IN ALL THE (GARBLE) AND USE THE ARMS IN A CURLING MOTION TO CREATE EXERCISE IN THE UPPER TORSO. I'M GOING TO SWING NOW TO THE OTHER SIDE OF THE COCKPIT, WHERE YOU CAN SEE DONN IS STILL ROTATING THE ATTITUDE OF RATHER A TIGHT (GARBLE) TO PREPARE FOR OUR RADIATOR DEGRADATION TEST. YOU CAN SEE WE HAVE OUR LIGHTER MOMENTS. HAVE YOU GOT HANEY'S ANSWER YET?

CAPCOM NO, HANEY ISN'T TALKING WALLY.

SC ROGER, AND HOW MUCH MORE TIME DO YOU WANT ON THIS MACHINE?

CAPCOM SOMEBODY TELLS ME HE ISN'T TALKING, BUT JUST BUYING.

SC HE IS BUYING, THANK YOU VERY MUCH. VERY GOOD. WE WILL NOW TAKE YOU DOWN BELOW THE COUCHES, TO OUR STORAGE AREA. THIS BOTTOM OPENS UP TO BE A SLEEP STATION. THE (GARBLE) BELOW IS A HEAD REST SWINGS OFF AND STOWS. THE LARGE BULKY BAG THAT YOU SEE OFF THE CAMERA LEFT IS YOUR (GARBLE). JACK, DO YOU STILL HAVE THE PICTURE LOOKING PRETTY WELL?

CAPCOM THE PICTURE QUALITY ISN'T AS GOOD NOW AFTER THE HANDOVER TO THE CAPE, BUT WE CAN STILL MAKE IT OUT.

SC I'M GOING TO TAKE YOU THROUGH THE AREA WHERE THE WATER IS COLLECTING. THIS IS THE AREA WHERE WATER WAS CONDENSING ON THE PIPES, JUST BELOW THE COMMANDERS LEFT SHOULDER. YOU WILL NOTICE THAT THE PANEL HERE WAS REFRIGERATED, AND WITH THE (GARBLE) THERE IS WATER CONDENSATION ON THE PIPE. WE VACUUMED IT OFF (GARBLE) AND IT FORMS A LARGE BALL OF ABOUT THE SIZE OF A PING PONG OR GOLF BALL.

CAPCOM OKAY WALLY, WE'VE LOST THE PICTURE NOW. WE COPIED THE WATER CONDENSATION AND WE SAW THE BEGINNING OF YOUR TRANSMISSION ON THE WATER CONDENSATION NOW.

SC VERY GOOD

CAPCOM THAT WAS A REAL GOOD PASS.

SC SAY JACK, WE'VE GOT THE STEAM PRESSURE UP OKAY, BUT WE DON'T SEEM TO BE ABLE TO PUT IT BACK UP IN THE BOILING RANGE AND WE ARE NOT BOILING NOW.

CAPCOM WALT, WE WOULD LIKE YOU TO RESERVICE THE PRIMARY EVAPORATOR.

APOLLO 7 COMMENTARY, 10/15/68, GET: 952500 (CDT 9:31A) 310/4

PAO THIS IS APOLLO CONTROL HOUSTON, 95 HOURS, 37 MINUTES INTO THE FLIGHT AND WE BROUGHT THE PICTURE TO AN END. YOU CAN SEE THE DEGRADATION AS WE MOVED OUT OF THE OUTER LIMITS OF THE MERRITT ISLAND CIRCLE. WE CAN THANK COMMANDER WALLY SCHIRRA FOR A TOUR OF APOLLO-7 CABIN, AND HE HELD UP A FEW SIGNS WITH SOME QUESTIONS ON IT, WHICH WERE, I SUPPOSE, MEANT TO ELICIT A CERTAIN ANSWER. WE DID GET SOME OPERATIONAL INFORMATION ON THAT PASS, WHICH WAS OF INTEREST HERE. HE WAS TRYING TO SHOW US WHAT THE WATER CONDENSATION LOOKED LIKE ON SOME OF THE MACHINERY INSIDE THE CABIN TOWARD THE END. YOU MIGHT HAVE HEARD, THE COM WAS PRETTY ROCKY THERE, BUT YOU HEARD JACK SWIGERT CONFIRM THAT WE DID UNDERSTAND HE WAS TRYING TO SHOW US THE WATER CONDENSATION. ALL IN ALL, IT WAS A VERY WORTHWHILE PASS. WE SHOULD CONTINUE TO HOLD LOCK HERE ON OUT THROUGH THE SHIP VANGUARD FOR ANOTHER 5 MINUTES. WE'LL KEEP THE LINE OPEN AND MONITORED. THERE HAS BEEN NO CONVERSATION NOW FOR SEVERAL MINUTES.

CAPCOM APOLLO 7, HOUSTON. ONE MINUTE LOS BERMUDA, WE'LL PICK YOU UP AT CANARY AT 95 PLUS 46. THAT WAS A REAL GOOD TOUR OF YOUR CASTLE THERE.

SC
THAT GO OUT LIVE?

ROGER, WELCOME ABOARD. HEY JACK, DOES

CAPCOM
SC

THAT WENT OUT LIVE.
IS DEKE SLAYTON OUT OF THE PRESS CONFERENCE

NOW?

CAPCOM DEKE ISN'T HERE RIGHT NOW, DONN, BUT HARRIET'S IN THE CONTROL ROOM AND WATCHES ALL.

SC
FOR ME.

ROGER, UNDERSTAND. TELL HER HELLO

CAPCOM
SC

YOU JUST DID, SHE'S NODDING HER HEAD.
OKAY.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 954000 (CDT: 9:31A) 311/1

PAO THIS IS APOLLO CONTROL HOUSTON, 95 HOURS,
44 MINUTES INTO THE FLIGHT. WE HAVE LOST SIGNAL THROUGH THE
SHIP VANGUARD; WE SHOULD ACQUIRE FOR A VERY PERIPHERAL PASS
THROUGH THE CANARY ISLANDS. AND MEANWHILE WE ARE CONTINUING
WITH THE RADIATOR TEST; THAT'S THE MAIN FLIGHT PLANNED ITEM.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 955220 (CDT: 9:58A) 312/1

PAO THIS IS APOLLO CONTROL HOUSTON, 95 HOURS 52 MINUTES INTO THE FLIGHT. WE HAD A VERY BRIEF CONVERSATION WITH APOLLO 7 BY THE CANARY ISLANDS AND HERE IS HOW THAT CONVERSATION WENT.

PAO I AM SORRY; WE DO NOT HAVE TAPE OF IT; IT WAS SIMPLY A CALL UP AND AN ACKNOWLEDGEMENT AND THAT WAS THAT. MY ERROR. WE EXPECT TO REACQUIRE BY TANANARIVE AT 96 03 MINUTES AFTER THE HOUR, ABOUT 10 MINUTES FROM NOW. THIS IS, ON THE TV PASS, WE CLOCKED HERE IN OUR TAPE FACILITY, 11 MINUTES WORTH OF TELEVISION TAPE. ELEVEN MINUTES, WHICH WAS 4 MINUTES MORE THAN WE HAD YESTERDAY. THIS IS AT 95 HOURS, 53 MINUTES. THIS IS APOLLO CONTROL HOUSTON.

END OF TAPE

PAO THIS IS APOLLO CONTROL HOUSTON, 96 HOURS AND 3 MINUTES INTO THE FLIGHT. WE ARE GOING TO TRY TO ADVISE APOLLO 7 THAT WE ARE STANDING BY HERE IN A MOMENT, BUT THE CIRCUIT SOUNDS NOISEY THIS MORNING THROUGH TANANARIVE. ONE COMMENT ON THE TELEVISION TAPE WHICH YOU MIGHT HAVE MISSED. IN LOOKING AT THE TAPE CAREFULLY, AND THIS CAME UP IN A CONVERSATION THE SECOND TIME WE LOOKED AT IT HERE IN THE CONTROL CENTER, YOU BEGIN TO APPRECIATE THE TRUE SIZE OF APOLLO. REMEMBER THE INTERNAL VOLUME IS NEARLY 4 TIMES THAT OF GEMINI. 320 CUBIC FEET VERSUS 80 ODB FOR GEMINI. AND THE PILOTS, AS THEY PRESENTED THEIR Q CARDS AND SO FORTH IN THE OPENING SEQUENCE, WERE COMING TO US, THEY WERE FLOATING OUT OF AN AREA UNDER THE COMMAND MODULE'S SEAT. DON EISELE WAS IN THE COMMANDER'S SEAT ON THE LEFT SIDE, AND WE SAW WALLY SCHIRRA AND THEN WALT CUNNINGHAM SORT OF STAGING FROM AN AREA IMMEDIATELY UNDER THAT SEAT AND FLOATING UP AND THEN ACROSS OUR FIELD OF VIEW. THEN OF COURSE WALLY POINTED THE CAMERA DOWN INTO THE LOWER EQUIPMENT BAY AND HE DID A WONDERFUL EXPLANATION OF THE OPTICS. NOW WE HAVE REACHED APOLLO 7; LET'S LISTEN.

SC WE'VE GOT OVER 3 HOURS AT THE LAST OF THIS TEST THAT YOU WERE (GARBLE) AND EXPECTED.

CAPCOM WALLY, WE ARE NOT READING COM VERY WELL THROUGH TANANARIVE HERE.

SC (GARBLE)

CAPCOM HOW DO YOU READ APOLLO 7? OKAY, APOLLO 7 HOUSTON.

SC ROGER. WE WILL (GARBLE) WHEN WE HAVE A PASS.

CAPCOM WALLY, WE HAVE BEEN MONITORING THE FUEL USAGE VERY CLOSELY. THEY FIND THE FUEL USAGE IS NOMINAL FOR THIS TEST. WE WOULD LIKE TO CONTINUE THE TEST AND USE THE SECONDARY EVAPORATOR AND IT REQUIRES TO LOWER THE EVAP OUT TEMPERATURE. COM IS VERY BAD HERE OVER TANANARIVE; WE WILL HAVE A REAL GOOD PASS WITH YOU THROUGH CARNARVON.

SC ROGER. THE PRIMARY EVAPORATOR IS WORKING FINE AGAIN.

CAPCOM OKAY, COPY THAT, WALT.

CAPCOM APOLLO 7, YOU'RE 1 MINUTE LOS TANANARIVE; WE'LL PICK UP ARIA 1 IN ABOUT 2 MINUTES MONITORING YOU THERE THROUGH CARNARVON.

SC ROGER. (GARBLE)

CAPCOM ROGER; OUT.

SC HEY JACK; THIS IS WALT. GIVE ME 30 CLICKS ON THE (GARBLE) MILES PER HOUR.

CAPCOM HOW MANY CLICKS WALT?

SC 30 -

CAPCOM ROGER; 30 CLICKS. (GARBLE) AND 2 - OF CDS.

SC (GARBLE) FOR C AND P

SC (GARBLE) THIS IS APOLLO 7.

APOLLO 7 COMMENTARY, 10/15/68, GET: 962025 (CDT: 10:15A) 314/1

PAO APOLLO CONTROL HOUSTON HERE AT 96 HOURS,
20 MINUTES INTO THE FLIGHT. WE JUST ACQUIRED THROUGH CARNAR-
VON AND HERE IS HOW THE CONVERSATION IS GOING.

SC WITH THE SLIDE IN PLACE, EXCUSE ME, AND
WE MADE 4 SHOTS THERE AND PROBABLY 3 OR 4 OTHER ONES THROUGH
THE FLIGHT AT RANDOM.

CAPCOM OKAY, I COPY THAT WALT.

SC JACK, GO AHEAD WITH YOUR UPDATES.

CAPCOM ROGER. BLOCK DATA 11 063-4A PLUS 305
MINUS 1599 099 PLUS 36 PLUS 59 3402 064-4A PLUS 309 MINUS
1600 101 PLUS 13 PLUS 24 3578 065-4A PLUS 269 MINUS 1600 102
PLUS 46 PLUS 04 2888 066-3A PLUS 309 PLUS 1363 104 PLUS 04
PLUS 38 3403 PLUS 067-3A PLUS 306 PLUS 1362 105 PLUS 41 PLUS 04
3607 068-3B PLUS 261 PLUS 1344 107 PLUS 13 PLUS 10 2888.

SC ROGER; THAT'S COMPLETE, YOUR BLOCK UPDATE
JACK?

CAPCOM AFFIRMATIVE.

SC ALL RIGHT; READ BACK AS FOLLOWS. DID YOU
START WITH 62 OR 63?

CAPCOM 063-4A.

SC YOU'RE 063-4A PLUS 305 MINUS 1599 099,
3659 3402 064-4A PLUS 309 MINUS 1600 101 13 24 357.8 065-4A
PLUS 269 MINUS 1600 102 46 04 2888 066-3A PLUS 309 PLUS 1363
104 04 38 3403 067-3A PLUS 306 PLUS 1362 105 41 04 3607 068-
3 PLUS 261 PLUS 1344 107 13 10 2888.

CAPCOM ROGER; THAT'S CORRECT.

CAPCOM APOLLO 7, HOUSTON. DID YOU PURGE 02?

SC I PURGED 02 AT THE REGULAR SCHEDULED TIME
WHICH WAS 7 HOURS AGO I THINK, WASN'T IT?

CAPCOM ROGER; WE COPY.

SC CHECK THE TIME ON THAT WILL YOU JACK?

CAPCOM ROGER; IT SHOULD HAVE BEEN AT 94 HOURS.

SC THAT'S RIGHT; WE PURGED AT 94 HOURS.

CAPCOM OKAY, THANK YOU.

SC WE'RE GOING THROUGH A MEAL NOW AND PROBABLY
HAVE A GRIPE; THE CRACKER TYPE FOOD; CHICKEN SANDWICHES; THEY
ARE ALL CRUMBLY AND WE HAVE A LOT OF PROBLEM WITH CRUMBS
ALL OVER THE COCKPIT. WE HAVE BEEN REJECTING A LOT OF THIS.

CAPCOM OKAY, WALLY, WE COPY THAT. YOU ARE ABOUT
1 MINUTE LOS CARNARVON, AND WE WON'T GET YOU AGAIN TILL HAWAII
AT 96 PLUS 45.

SC ROGER.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 963000 (CDT 10:25A) 315/1

PAO APOLLO CONTROL HOUSTON. WE ARE NOW 96 HOURS 31 MINUTES INTO THE FLIGHT AND I THINK WE ARE PROBABLY OUT OF COMMUNICATIONS THROUGH THE AUSTRALIAN CIRCLE, AT LEAST WE ARE PASSING OVER THE NORTHEASTERN EDGE OF THE CONTINENT OF AUSTRALIA. JUST BEFORE WE CAME INTO AUSTRALIA, YOU HEARD, IF YOU WERE MONITORING THE RELEASE LOOP, SOME EXCELLENT COMMENTARY - COMMUNICATIONS LET'S SAY THROUGH THE - ONE OF THE AIRCRAFT - ONE OF THE KC135 FLYING RADIO STATIONS WHICH WE ARE EXERCISING DURING THIS MISSION. THE AIRCRAFT WAS FLYING AT ABOUT 40,000 FEET IN THE MID-INDIAN OCEAN AND THE ATMOSPHERICS MUST HAVE BEEN VERY COOPERATIVE TODAY, BECAUSE THAT IS THE CLEAREST COMMUNICATIONS WE'VE HEARD IN THE 4 OR 5 DAYS OF THIS MISSION. THROUGH AN AIRCRAFT WE COULD HEAR THEM AND THEY SAID THEY COULD HEAR US QUITE WELL. AT 96 HOURS 32 MINUTES INTO OUR MISSION, WE NOW WILL HAVE AN OUT UNTIL THE SPACECRAFT IS ACQUIRED BY HAWAII, WHICH ACQUISITION SHOULD COME AT 96 HOURS 45 MINUTES. THIS IS APOLLO CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 965356 (CDT 10:49A) 316/1

PAO APOLLO CONTROL HOUSTON. WE ARE 96 HOURS 53 MINUTES INTO THE FLIGHT. A FEW MINUTES AGO, WE CALLED APOLLO 7 THROUGH HAWAII AND HERE IS HOW THE CONVERSATION HAS GONE.

CAPCOM APOLLO 7, HOUSTON THROUGH HAWAII.
SC ROGER. WE COMPLETED ALL OUR DATA RECORDING THROUGH YOU. ARE YOU GOING TO BE DUMPING THAT TAPE NOW?

CAPCOM APOLLO 7, HOUSTON. WE ARE GOING TO REWIND THE TAPE HERE. WE WILL DUMP IT OVER THE STATES.

SC ROGER AND CAN WE SECURE THIS TEST?
WE WILL CONTINUE FOR 30 MORE MINUTES.

CAPCOM OKAY, WE ARE GOING TO SECURE AT 97 HOURS, WALLY.

SC ROGER.

SC JACK, THIS IS WALLY.

CAPCOM GO AHEAD.

SC THIS IS REALLY A THRILLING FLIGHT CONTROL TEST. ONE SLOW ROLL IN AN HOUR AND A HALF.

CAPCOM (LAUGHTER) ROGER, COPY THAT.

CAPCOM APOLLO 7, HOUSTON.

SC GO AHEAD.

CAPCOM WALT, I HAVE THIS DAYLIGHT SCANNING TELESCOPE STAR COUNT PAD TO GIVE YOU WHENEVER YOU ARE READY TO COPY.

SC OKAY, THE DAYLIGHT SCANNING TELESCOPE STAR COUNT OR THE SEXTANT STAR COUNT, JACK?

SC JACK, HOW ABOUT GIVING ME A LITTLE MORE ON THAT ONE, THAT IS IMPOSSIBLE TO USE. HOUSTON, APOLLO 7.

CAPCOM WALLY, WE WILL GIVE YOU A HACK ON YOUR FUEL USE ON THIS - THE FUEL USAGE WE HAVE COPIED SO FAR HAS BEEN BETWEEN 17 AND 18 POUNDS, WHICH IS RIGHT ON THE NOMINAL FOR THIS TEST.

SC HOUSTON, APOLLO 7.

CAPCOM OKAY, WALT, STAND BY ONE.

SC JACK, ON OBSERVING DETAILS WE WANT TO FEEL WE'VE LEARNED SOMETHING UP HERE IN 5 DAYS THAT SOMEBODY ELSE HASN'T LEARNED YET.

CAPCOM SAY AGAIN, WALLY, I MISSED THAT.

SC LET'S ASSUME WE HAVE LEARNED SOMETHING UP HERE IN THE LAST 5 DAYS THAT WE DIDN'T KNOW BEFORE WE CAME UP.

CAPCOM OKAY, I HAVE THIS DAYLIGHT STAR COUNT PAD ASSESSMENT.

SC OKAY, WE WILL TAKE IT.

CAPCOM OKAY. GET OF SUNRISE 98 + 15, ROLL 000, PITCH 097, YAW 000. GET OF SUNSET -1298 + 56, ROLL 000, PITCH 327, YAW 000. YOUR KEY ALIGN WILL 98 + 15, AND

APOLLO 7 COMMENTARY, 10/15/68, GET: 965356 (CDT 10:49A) 316/2

CAPCOM THE ONLY REMARK -
SC WE HAVE TO DO THIS KEY ALIGN FOR THESE ANGLES? WE HAVE OUR REFS ON THAT NOW.

CAPCOM ROGER. THE KEY ALIGN IS FOR THOSE ANGLES. AND THE OTHER CHANGE ON THIS IS THAT THE SHAFT WILL BE 90 DEGREES AND A TRUNION 0 DEGREES.

SC OKAY, 0 SHAFT 90. DONN HAS GOT SOMETHING TO REPORT.

SC WE DID THIS TEST A COUPLE OF DAYS AGO, WITH A 120 DEGREES ANGLE UP AND I JUST DIDN'T SEE MUCH POINT IN IT. YOUR ABILITY TO SEE STARS IS NOT SO MUCH THE FUNCTION OF LIGHT TRANSMISSION OF THE TELESCOPE AS IT IS A MATTER OF STRAY LIGHT YOU GOT COMING IN FROM LOOSE PARTICLES FLYING AROUND OUTSIDE THAT LOOK LIKE STARS AND ALSO IN STRAY LIGHT THAT COMES UP FROM THE EARTH AND WHATNOT, DISTORTING THE TELESCOPE PICTURE. JACK THE POINT IS I DON'T THINK YOU ARE LEARNING A HECK OF A LOT FROM THIS. WE KNOW ALREADY THAT THE STARS AREN'T (GARBLE)

CAPCOM OKAY, DONN. WE'VE GOT REAL POOR COM. I CAN'T QUITE COPY. LET'S WAIT UNTIL WE GET OVER THE COAST AND WE WILL HAVE A LITTLE BETTER COM.

SC ROGER.

CAPCOM APOLLO 7, HOUSTON.

SC GO AHEAD.

CAPCOM ROGER. COMPUTER SAYS THAT THE EVAPORATOR MIGHT BE DRYING OUT AGAIN.

SC DARN RIGHT.

SC JACK, I'VE BEEN TRYING TO TELL YOU THAT WITH REALIGNMENT, WE LOSE FUEL, GET INTO A NEW ATTITUDE, FLY TWO DIFFERENT ATTITUDES TO PROVE WHAT WE HAVE ALREADY DISCOVERED IN THIS FLIGHT, THAT YOU CAN'T SEE STARS IN THE TELESCOPE EXCEPT JUST AFTER SUNRISE OR JUST AFTER SUNSET, WHICH WE HAVE BEEN TRYING TO TELL THE PROJECT OFFICE FOR ABOUT 5 YEARS.

CAPCOM ROGER, COPY THAT. WALLY, THIS TEST HERE HAS THE TELESCOPE SUNLIGHT OF SIGHT OFF AT 7 DEGREES, WHICH IS WORST CASE AND WE WOULD KIND OF LIKE TO GET THIS ONE IN.

SC THAT'S WHAT I'VE BEEN TRYING TO TELL YOU. WITH THE BEST CASE WE DIDN'T DO ANY GOOD, BUT IF YOU WANT US TO DO THE TEST, WE WILL DO IT. BUT WE ARE KIND OF TIRED OF ARGUING WITH PEOPLE THAT PRODUCE THIS ENVIRONMENT. I'M NOT TALKING ABOUT YOU, BUT THE VARIOUS THINGS YOU DON'T KNOW ABOUT TELESCOPES.

SC WE WILL TRY OUT THE TEST CAPE TIME.

SC IS THE RADIATOR DEGRADATION TEST OVER YET?

CAPCOM APOLLO 7, HOUSTON. YOU CAN DISCONTINUE THE RADIATOR DEGRADATION TEST.

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SC ROGER.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 970300 (CDT: 10:58A) 317/1

SC RIGHT OVER US HERE TODAY.
CAPCOM GO AHEAD APOLLO 7.
SC ROGER; WE ARE LOOKING AT YOUR PRETTY
WHITE (GARBLE) TODAY.
CAPCOM THAT'S AFFIRMATIVE.
SC WE (GARBLE) WEATHER.
CAPCOM APOLLO 7, HOUSTON.
SC GO AHEAD JACK.
CAPCOM ON, WHILE YOU ARE TAKING PHOTOGRAPHS,
DURING THIS STATESIDE PASS, OR THE NEXT ONES, IF YOU CAN
FIT IT IN, WE WOULD LIKE TO GET A PICTURE OF TUCSON AND A
PICTURE OF A TROPICAL STORM WHICH IS PRESENTLY JUST SOUTH
OF CUBA.
SC UNDERSTAND TUCSON AND A STORM JUST SOUTH
OF CUBA.
CAPCOM ROGER; TROPICAL STORM GLADIS JUST SOUTH
OF CUBA.
SC WHICH END JACK, SOUTH OF HAITTI OR SOUTH
OF THE (GARBLE)?
CAPCOM
SC IF YOU COULD GIVE US LATITUDE AND LONGI-
TUDE THAT WOULD HELP US.
CAPCOM STAND BY WALLY. OKAY, THE PRESENT
POSITION OF THIS STORM IS SOUTH OF THE EASTERN TIP OF CUBA,
AND EAST-WESTERN TIP OF CUBA AND EAST OF THE YUCATAN PEN-
NSULA.
SC (GARBLE) UP THROUGH THE (GARBLE) ISLANDS?
OKAY, WE GOT A PRETTY GOOD LONGITUDE ON - (GARBLE)
CAPCOM NEXT PASS; IT LOOKS LIKE YOU WOULD BE
IN A LITTLE BETTER POSITION; IT LOOKS LIKE YOU MIGHT EVEN
PASS RIGHT OVER IT.
SC ROGER. JACK AT THIS TIME WOULD YOU
LET ME CHECK CLICKS ON THE WATER DUMP?
CAPCOM ROGER; COPY THAT.
SC GIVE WALT 15 CLICKS.
CAPCOM 15 FOR WALT.
SC THE STAR WILL TAKE 20.
CAPCOM OKAY. APOLLO 7, WE SHOW YOU APPROACHING
GIMBLE LOX.
SC THAT'S WHAT YOU CALL SKIRTING THE ISSUE,
JUST GOING BY THE EDGE.
CAPCOM ROGER. JACK, ON THAT TUCSON-PHOENIX;
DID YOU WANT THE PANEX OR THE 121?
CAPCOM STAND BY.
CAPCOM WE'LL GET YOU THAT BY THE NEXT PASS.
SC ROGER; PLENTY OF TIME.
SC JACK, ON THAT TROPICAL STORM COMING UP
THERE, DO YOU EXPECT THAT TO COME UP INTO THE GULF OF MEXICO?
CAPCOM RIGHT NOW THE FORECAST IS PAST UP INTO
THE WEST COAST OF FLORIDA.

SC I SEE IT.
SC JACK, ON THAT PASS WOULD YOU LOG THE FOLLOWING PICTURES MAGAZINE S? STARTING DOWN AROUND ABOUT 55, WE GOT TWO GOOD PICTURES OF HOUSTON, 2 OF NEW ORLEANS, MOBILE BAY, PENSACOLA. WALLY GOT THE MISSISSIPPI DELTA, THE PORT WALTER AREA AND THAT WAS ABOUT IT. THE CAPE WAS CLOUDY, PATCHY BROKEN
CAPCOM OKAY, COPY THAT.
SC JACK, I WOULD RECOMMEND FOR THE NEXT CREW THAT THEY TRY TO ELIMINATE AS MUCH OF THE PROTEIN IN THE BITE SIZE FOOD THAT'S BOTHERING ALL OF US ALREADY.
CAPCOM OKAY, WE COPY.
SC THE HOT ONE.
SC I THOUGHT THE BREAKFAST DRINK WAS GOING OVER VERY WELL, BUT WE NEED A BETTER TYPE OF FLUID.
CAPCOM OKAY, COPY. (CUT OFF) HE HEAR. WAIT TILL I GET MY SHEET OUT.
CAPCOM APOLLO 7, HOUSTON. APOLLO 7, APOLLO 7, HOUSTON.
SC GO AHEAD.
CAPCOM APOLLO 7, HOUSTON. REGARDING THIS DAYLIGHT SCANNING TELESCOPE STAR COUNT, WE'RE NOT GOING TO BE ABLE TO DO IT WITH THE PRESENT REVS MET BECAUSE OF A GIMBAL LOCK PROBLEM. WE UNDERSTOOD YESTERDAY, THAT WE SAW MORE STARS THEN WE ANTICIPATED AT THE 120 DEGREE LINE OF SIGHT. WE WOULD LIKE VERY MUCH TO GET THIS TEST IN AT THE 70 DEGREE LINE OF SIGHT. OVER.
CAPCOM APOLLO 7, APOLLO 7, HOUSTON. DID YOU COPY?
SC YES, WE READ YOU.

END OF TAPE

PAO THIS IS APOLLO CONTROL HOUSTON 97 HOURS 14 MINUTES INTO THE FLIGHT WITH APOLLO 7 OUT IN THE FAR EASTERN TIP OF ANTIGUA ACQUISITION CIRCLE. WE'RE RATHER SURE THAT WILL WIND UP THE COMM FOR THIS PASS. THIS IS APOLLO CONTROL IN HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 972755 (CDT 11:23A) 319/1

PAO APOLLO CONTROL HOUSTON 97 HOURS 17 MINUTES,
AND THROUGH ASCENSION WE'VE BEEN HAVING THIS INTERESTING
CONVERSATION.

CAPCOM APOLLO 7, HOUSTON THROUGH ASCENSION.

SC ROGER.

CAPCOM ROGER, YOU ARE 5 BY. DO YOU COPY OUR
CONVERSATION ON THE SCAN TELESCOPE STAR COUNT THAT WE WERE
GIVING YOU OVER BERMUDA?

SC I GOT YOU, ROGER.

CAPCOM OKAY.

SC I'VE GOT SOME INFORMATION FOR YOU. IF
YOU WERE IN PITCH AND ROLL, IF THE STICK IS RELEASED IT WILL
IT WILL FOLLOW A JET RAPID DIRECTION EXACTLY AS IN THE SIMU-
LATOR.

CAPCOM COULD YOU GO OVER THAT AGAIN, PLEASE?

SC OKAY, IT'S (GARBLED) MODE, BETA IMPULSE.

CAPCOM ROGER.

SC IF ONE PULSE IN READY TO ROLL OUT, THE
STICK IS RELEASED (GARBLED).

CAPCOM ROGER COPY THAT.

SC IT'S THE SAME AS THE STICKS IN THE SIMU-
LATOR, IT'S THAT UNIQUE.

CAPCOM OKAY. THE OTHER THING WE WANTED TO ASK
YOU IS TO DO - YOU COULD DO THE H2 STRATIFICATION TEST
WHenever YOU CAN FIT IT IN THERE.

SC ROGER, THANK YOU. THAT'S INSIDE THE
NEXT HALF HOUR.

CAPCOM OKAY, WE'D LIKE YOU TO PUT YOUR TAPE
RECORDER FORWARD SWITCH TO FORWARD.

SC ROGER, ARE YOU THROUGH DUMPING?

CAPCOM AFFIRMATIVE.

SC IT IS IN FORWARD.

CAPCOM OKAY. THE OTHER THING WE'D LIKE TO GET
IS THE GENERAL CREW STATUS WITH A STATUS ON EACH MAN. COULD
YOU GIVE US A RATHER COMPLETE RUNDOWN ON EACH MAN - HOW
THEY'RE FEELING TODAY?

SC THIS IS CDR. I STILL HAVE A RATHER
THICK MUCOUS NOSE COLD. THE THREE OF US ARE COUGHING.
WE'RE VERY WELL RESTED ALTHOUGH LAST NIGHT WAS RATHER A
SHORT NIGHT, AND WE'LL TAKE ADVANTAGE OF THE LONGER HOURS
TONIGHT TO CATCH UP AGAIN. WE'VE ALL HAD PLENTY TO EAT AND
DRINK, IF NOT TOO MUCH. THE SIGHT OF THE FOOD IS JUST TOO
RICH FOR US. I'M STILL ON ASPIRIN AND I'M OFF ACTIFED
AT THIS TIME, AND ALL OF US ARE GETTING OUT OF ACTIFED.
WE DON'T HAVE ENOUGH LEFT TO KEEP TAKING IT FOR THE LENGTH
OF THE MISSION. WE'LL USE IT PRIOR TO REENTRY.

SC THIS IS THE CMP. MY ONLY COMPLAINT
IS A HEAD COLD JUST LIKE WALLY. I FIND THAT MY EARS PLUG
UP NOW AND THEN. I WOULD TAKE THE ACTIFED EXCEPT FOR RUNNING
OUT OF IT. WE'RE SAVING IT FOR REENTRY IN CASE WE NEED IT THEN.

APOLLO 7 COMMENTARY, 10/15/68, GET: 972755 (CDT 11:23A) 319/2

SC OTHER THAN THAT I'M IN GOOD SHAPE. I'VE HAD PLENTY TO EAT AND DRINK, HAD PLENTY OF SLEEP. NO PROBLEMS

SC ARE YOU STILL READING JACK?

CAPCOM ROGER.

SC OKAY, I'M IN GOOD SHAPE. I'VE BEEN SLEEPING A LITTLE BETTER EACH NIGHT AND MY EARS ARE JUST BARELY CLEAR SOME MORNINGS AND SOMETIMES NOT. I DON'T FEEL BAD, I DON'T FEEL LIKE I'VE GOT A COLD. I JUST FEEL LIKE I'M PRETTY WELL STUFFED UP AND ON THE VERGE OF GETTING ONE.

CAPCOM OKAY, COPIED THAT. APOLLO 7, HAVE ANY OF YOU HAD AN INDICATION OF A TEMPERATURE RISE?

SC NEGATIVE.

CAPCOM OKAY, FINE. SOMETIME, NO HURRY ON IT, YOU MIGHT GIVE US A COUNT ON YOUR MEDICATION REMAINING. WE SORT OF LOST TRACK HERE.

SC OKAY. WE'VE BEEN LOGGING IT, AND CALLING IT DOWN, JIM, IF YOU HAVEN'T GOTTEN A REPORT ON EVERY BIT OF IT. ONE INTERESTING OBSERVATION, WITH A HEAD COLD THE MUCOUS DOES NOT GO DOWN THE THROAT AND CAUSE A LUNG PROBLEM. IT STAYS STUFFED UP IN THE SINUSES. THIS IS DUE TO ZERO GRAVITY I'M SURE.

CAPCOM OKAY, COPY THAT.

SC JACK, THIS IS DONN. I JUST DID A DAY-LIGHT P-52. HOW IT HAPPENED, WE ROLLED OVER SO THAT WE'RE POINTED UP TO THE STARS. I DID P-52 AND PICK A PAIR WORKED, SO I LUCKED OUT. IT TURNS OUT THAT YOU CAN IN GENERAL SEE STARS IN THE SEXTANT PROVIDED IT'S NOT TOO CLOSE TO THE SUN AND PROVIDED ALL THE OPTICS WILL PULL THEM IN FOR YOU, BUT OF COURSE IT'S IMPOSSIBLE TO SEE ANYTHING THROUGH THE TELESCOPE UNDER THESE CONDITIONS.

CAPCOM ROGER, COPY.

SC (BREAK INTO CONVERSATION) BY THE STARS I MARKED ON EXPLICITLY. I ASSUME THEY ARE RIGHT BECAUSE THE STAR DIFFERENCE ANGLES WAS PROPER.

CAPCOM OKAY, REAL FINE.

SC I WOULDN'T WANT TO HANG MY HAT ON THAT IF I WERE GOING TO THE MOON, HOWEVER.

CAPCOM ROGER, UNDERSTAND.

SC I'D LIKE TO MAKE TH POINT, YOU CAN PROVE THE TWO STARS BY THE STAR ANGLE DIFFERENCE LIKE 4 BALLS 1.

CAP COM OKAY.

SC AND BY THE PICK A PAIR.

CAPCOM OKAY, APOLLO 7, HOUSE ON. WE SHOW THAT ONE PANEL IS STILL ISOLATED, AND WE'RE ABOUT TO LOSE YOU OVER ASCENSION. WE'LL PICK YOU UP AT TANANARIVE HERE AT 497 PLUS 38.

SC ROGER. THAT'S A GOOD CALL DOWN THERE, THANK YOU.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET 973810 CDT 11:33A 320/1

PAO THIS IS APOLLO CONTROL, HOUSTON. WE'RE
97 HOURS 38 MINUTES INTO THE FLIGHT, AND VIA TANANARIVE WE'RE
ABOUT TO ACQUIRE. STAND BY.

CAPCOM APOLLO 7, HOUSTON THROUGH TANANARIVE.

SC I READ YOU.

CAPCOM ROGER, WE'RE STANDING BY.

PAO THIS IS APOLLO CONTROL, HOUSTON, HERE IN
97 HOURS, 40 MINUTES INTO THE FLIGHT. IN DISCUSSING THE
SITUATION, THE FLIGHT DIRECTORS CONCLUDED THAT THE COMM
CIRCUIT THROUGH TANANARIVE TODAY IS A BIT TOO CHOPPY SO WE
WILL TAKE IT DOWN.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 980030 (CDT: 12:03P) 321/1

PAO THIS IS APOLLO CONTROL HOUSTON AT 97 HOURS 56 MINUTES. IN THE RECENT SWING ACROSS THE INDIAN OCEAN WE TRIED WITHOUT SUCCESS TO RAISE THE SPACECRAFT THROUGH AN ARIA AIRCRAFT OVER THE INDIAN OCEAN, AND AS I SAY, THE, - WE WERE NOT SUCCESSFUL BUT WE HAVE ESTABLISHED COM HOWEVER THROUGH CARNARVON AND HERE IS HOW IT'S GOING.

CAPCOM APOLLO 7, HOUSTON THROUGH CARNARVON.

SC ROGER, JACK. I TRIED TO PUT THE PRIMARY EVAPORATOR BACK ON THE LINE AND IT DIDN'T MAKE IT.

CAPCOM OKAY, I WAS TRYING TO REACH YOU THROUGH ARIA 1 TO DO THAT S BAND BTO FOR ARIA.

SC WE DIDN'T HEAR YOU.

CAPCOM ROGER; I DIDN'T HEAR YOU EITHER. ON YOUR QUESTION ABOUT THE FILM OVER THE STATESIDE PASS FOR THE PICTURES OF TUCSON, THE FILM TO USE IS S0121.

SC ROGER; THANK YOU. JACK, OUT OF CURIOSITY HOW MANY DIFFERENT KIND OF S BAND PASSES ARE THERE? I'LL GIVE YOU TIME TO FIGURE THAT ONE OUT.

CAPCOM 7, IT APPEARS TO BE ABOUT 20 OR 30 DIFFERENT TYPES OF MODES AND CONDITIONS FOR S BAND COMMUNICATIONS KINDS HERE.

SC ROGER.

CAPCOM APOLLO 7, HOUSTON. ON THE PRIMARY EVAPORATORS, DID YOU RESERVICE THIS BEFORE YOUR ATTEMPTS TO PUT IT BACK ON THE LINE?

SC SURE DID. WE RESERVICED IT OVER CANARIES.

CAPCOM OKAY, COPY.

SC TEMPERATURES ARE EVEN RUNNING PRETTY HOT; CAN YOU CONFIRM THAT BOTH OF MY RADIATOR PANELS ARE SLOWING DOWN?

CAPCOM OKAY, COPY.

SC TEMPERATURES ARE EVEN RUNNING PRETTY HOT; CAN YOU CONFIRM THAT BOTH OF MY RADIATOR PANELS ARE SLOWING NOW, THE INDIVIDUAL TEMPERATURES, PLEASE?

CAPCOM 7, BOTH OF YOUR RED PANELS LOOK GOOD.

SC ROGER, THANK YOU. HOUSTON, APOLLO 7.

CAPCOM GO AHEAD APOLLO 7.

SC I'LL GIVE YOU A MEDICATION COUNT; THERE ARE 3 CATEGORIES; ACTIFED, ASPRIN AND ONE MORE PILL. (GARBLE)

CAPCOM APOLLO 7, I DIDN'T COPY THAT YOU ARE GOING TO GIVE US THE QUANTITY REMAINING OF THE THREE MEDICATIONS.

SC YES, THE QUANTITY USED TO (GARBLE)

CAPCOM OKAY; GO AHEAD WITH THE QUANTITY USED.

SC ROGER. CDR ACTIFED 6, ASPIRIN 17, LOMA-

TIL 2. CMP ACTIFED 2, ASPIRIN 2.

CAPCOM COPY.

SC LMP 1 ACTIFED.

CAPCOM ROGER; COPY THAT. THANK YOU VERY MUCH.

APOLLO 7 COMMENTARY, 10/15/68, GET: 980030 (CDT: 12:03P) 321/2

SC ROGER.
CAPCOM APOLLO 7, HOUSTON. 30 SECONDS LOS CARNAR-
VON; A SHORT PASS AT GUAM AT 9807, HAWAII AT 9818.
SC UNDERSTAND.
PAO APOLLO CONTROL HERE, 98 HOURS, 2 MINUTES,
INTO THE FLIGHT AND WE ARE ABOUT TO LOSE SIGNAL BY CARNARVON.
THIS IS APOLLO CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET 981150, CDT 12:14P 322/1

PAO APOLLO CONTROL HERE 98 HOURS, 10 MINUTES INTO THE FLIGHT, AND THROUGH GUAM A FEW MINUTES AGO WE ACQUIRED, WE REALLY HADN'T BEEN EXPECTED, BECAUSE THE SPACE-CRAFT IS PASSING BELOW GUAM. BUT WE'RE GETTING EXCELLENT COMM. HERE'S HOW IT'S GOING.

CAPCOM APOLLO 7, HOUSTON THROUGH GUAM.

SC ROGER.

CAPCOM 7. WE HAVEN'T HAD A WINDOW STATUS CHECK IN A WHILE, HOW ARE THEY DOING?

SC ROGER. I THINK I WOULD RATHER GIVE YOU A REPORT WHEN THERE'S DAYLIGHT, JACK.

CAPCOM OKAY, REAL FINE. AND THE OTHER THING I WAS KIND OF CURIOUS ABOUT, WALLY, CAN YOU HEAR THE THRUSTER -- THE RCS THRUSTERS FIRE?

SC AFFIRMATIVE.

CAPCOM OKAY, REAL FINE.

SC ONLY WHEN THEY LIGHT OFF, WE CAN'T HEAR THEM WHEN THEY'RE BURNING.

CAPCOM OKAY,

SC RIGHT NOW THE MAIN THING IS YOU CAN HEAR A PAUSE. IT SOUNDS LIKE YOUR HEARING - AS DONN DESCRIBES IT -- A WATER (GARBLE)

CAPCOM ROGER. COPY.

SC HOWEVER, (GARBLE) IT SEEMS TO HAVE ALMOST A SURGE OF POWER. IT FLUCTUATES BACK AND FORTH ON A SORT OF A CYCLIC BEAT, RATHER THAN A STEADY, SMOOTH, APPLICATION OF POWER.

CAPCOM OKAY, COPY. WE'RE ABOUT 40 SECONDS FROM LOS GUAM. HAWAII AT 9880.

SC ROG, WE'RE NOT PASSING THIS DESCRIPTION DOWN UNTIL DAYLIGHT.

SC ROGER, COPY

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 982523 (CDT 12:28P) 323/1

PAO THIS IS APOLLO CONTROL HOUSTON 98 HOURS 25 MINUTES. WE'RE IN TOUCH WITH APOLLO 7 THROUGH HAWAII. EARLIER THROUGH GUAM YOU HEARD WALLY SCHIRRA ASK - RELAY A MESSAGE AND THE MORE UNDERSTANDABLE PARTS OF THE COMMUNICATION WAS THE NAME JOHN HEALY. JOHN HEALY IS AN ENGINEER WHO HEADED THE MANAGEMENT DEVELOPMENT TEAM WHICH WORKED ON SPACECRAFT 101, NOW CALLED APOLLO 7. HE IS AN EMPLOYEE OF THE NORTH AMERICAN ROCKWELL COMPANY, AND HE WAS IN THE VIEWING ROOM AND HEARD THE TRANSMISSION. WE'RE NOT SURE WE UNDERSTOOD IT FULLY AND IT'S BEING LISTENED TO IN VERY SLOW TIME AND TRANSCRIBED FOR MR. HEALY'S BENEFIT. WE HAVE THIS COMMUNICATION, HOWEVER, BY HAWAII.

CAPCOM APOLLO 7, HOUSTON.

SC THAT SET OF ANGLES WAS VERY GOOD THIS TIME AND WE FOUND THE MOON RIGHT IN THE MIDDLE OF THE TELESCOPE.

CAPCOM ROGER, COPY. WE WOULD LIKE TO SEND YOU UP A NAV LOAD AND I'M READY WITH A NAV CHECK WHEN YOU'RE READY TO COPY. WOULD YOU GO TO ACCEPT.

SC LET'S HAVE THE NAV CHECK.

CAPCOM OKAY, COMING UP. THE NAV CHECK AS FOLLOWS: 102 PLUS 30 PLUS 0000 MINUS 1154 PLUS 06596 1522

SC ROGER, READ BACK AS FOLLOWS: 102 30 4 BALLS MINUS 1154 PLUS 065961522. OVER.

CAPCOM THAT'S CORRECT.

SC JACK, DID YOU GET THE IMPACT OF THE MOON BEING IN THE TELESCOPE?

CAPCOM ROGER, WE'RE DISCUSSING THAT RIGHT NOW.

SC YEAH, YOU DON'T COUNT STARS WHEN YOU LOOK AT THE MOON.

CAPCOM ROGER, WE'RE SCRATCHING OUR HEADS.

SC (GARBLED) LIKE WE ARE.

CAPCOM APOLLO 7, HOUSTON, THE LOAD IS IN. WE'RE FINISHED, THE COMPUTER IS YOURS.

SC ROGER. THAT'S GETTING UP FAST.

SC HOUSTON, APOLLO 7. WE SHOULD E ALE TO HACK THE STAR COUNT ON THE NEXT PASS. THE G AND N (GARBLED) WILL NOT BE IN THE NEXT ATTITUDE.

CAPCOM ROGER, WE COPY.

CAPCOM APOLLO 7, HOUSTON. WE'RE ALL READY FOR THE KEYING TEST.

SC TAKE ONE ON THAT KEYING TEST.

CAPCOM ROGER.

SC I'LL GO AHEAD AND GIVE YOU A KEYING TEST. WE'RE COMING UP ON A PHOTO SHORTLY.

CAPCOM ROGER, 7, COULD YOU STAND BY ONE, WE LOST -

SC OKAY, I'LL STAND BY.

SC ARE YOU READY ON THE KEYING?

APOLLO 7 COMMENTARY, 10/15/68, GET: 982523 (CDT 12:28P) 323/2

CAPCOM NOT YET, WE'RE STILL STANDING BY.
CAPCOM APOLLO 7, HOUSTON, WE'RE READY FOR
THE KEYING TEST.
SC ROGER APOLLO.
SC KEYING TEST OVER.
CAPCOM ROGER.
CAPCOM APOLLO 7, HOUSTON. WE ARE THROUGH
WITH THE KEYING TEST. YOU CAN RECONFIGURE YOUR SPACECRAFT
PER THE FLIGHT PLAN, AND YOU ONLY MADE TWO MISTAKES.
SC YEAH, I SAW A COUPLE OF BLIPS (GARBLED)
CAPCOM ROGER.
SC BACK TO CONFIGURATION.
CAPCOM OKAY, COVER.
PAO THIS IS APOLLO CONTROL HOUSTON. THAT
KEYING TEST WAS A TEST OF AN EMERGENCY COMMUNICATION SYSTEM.
AND THE MESSAGE IS AS FOLLOWS: "THIS IS A TEST OF THE
EMERGENCY KEY." YOU HEARD THE CAPCOM ACKNOWLEDGE TWO SLIGHT
ERRORS AS WALT CUNNINGHAM SENT THAT, BUT IT WAS ALL TOGETHER
READABLE. SO WE'VE COMMUNICATED BY VOICE, BY TELEVISION,
AND NOW BY TELEGRAPH KEY TODAY.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 983600 (CDT: 12:38P) 324/1

SC (GARBLE) THROUGH 67, (GARBLE) MAGAZINE "O"
CAPCOM OKAY, COPY THAT.
SC WE ARE NOW LOOKING AT THE STORM. YOU MIGHT
GIVE US A MAP WHEN YOU THINK WE ARE ADJACENT TO IT.
CAPCOM OKAY, WILL DO WALLY. YOU GOT A LITTLE WAYS
TO GO YET.
PAO THIS IS APOLLO CONTROL HOUSTON. THE CREW
SHOULD BE PASSING OVER THAT LARGE STORM GLADYS HERE VERY
SHORTLY AND PERHAPS THEY'LL COMMENT ON IT. THE EMERGENCY KEY
TRANSMISSION WAS DONE THROUGH THE VOICE COM PUSH-TO-TALK KEY
FOR IT WAS LITERALLY BEING PUSHED ON AND OFF LIKE A TELEGRAPH
KEY.
SC OKAY, LOOKS LIKE ONE BIG OVERCAST ABOUT 12
O'CLOCK.
CAPCOM THAT SHOULD BE IT. THE TROPICAL STORM WILL
BE SOUTH OF YOUR FLIGHT PATH HERE, YOUR FLIGHT PASS SHOULD TAKE
YOU RIGHT OVER CUBA AND THE TROPICAL STORM WILL BE SOUTH OF
THE WESTERN TIP OF CUBA.
SC ROGER.
SC WE'LL TAKE A STEP GOING INTO IT; I WOULD
SUGGEST THAT.
CAPCOM OKAY.
SC WE'VE GOT ONE BIG STORMY AREA OUT HERE JACK;
I DON'T PICK UP A CHARACTERISTIC TROPICAL STORM.
CAPCOM OKAY, RIGHT NOW THE WIND SPEEDS ARE ABOUT
45 KNOTS - TOMORROW SOMETIME THE WINDS ARE FORECAST TO PICK UP
TO 70.
SC (GARBLE) UP INTO THE GULF BY TOMORROW (GARBLE)
CAPCOM ROGER; THERE ARE A FEW OTHER PEOPLE WITH
THE SAME PROBLEM.
SC UNDERSTAND. I'VE GOT A MINUTE, A CHANCE
TO GET (GARBLE)
CAPCOM I THINK YOU'RE RIGHT.
SC (GARBLE)
CAPCOM I THINK THAT IS PART OF THE DUTIES OF THE
SUPPORT CREW; WE'LL TAKE CARE OF IT WALLY.
SC I THINK (GARBLE) JACK.
SC JACK, FRAME 68 WAS THE CALL COVER THAT
(GARBLE) NOT REALLY A STORM AS (GARBLE)
CAPCOM ROGER; COPY.
SC COULD YOU GET A RATE (GARBLE) THERE JACK?
CAPCOM ROGER; STAND BY.
SC THE PITCHING THERE NOW IS NOT SOMETHING I
PUT IN IT; (GARBLE) WITH THAT LITTLE (GARBLE)
CAPCOM WALLY, RIGHT NOW IT LOOKS LIKE WE'VE GOT
A PITCH RATE OF PLUS .3.
SC ROGER; I DON'T REALLY THINK WE HAVE ANYTHING
TO WORRY ABOUT ON 1 OR 2 PULSES AND THE SPACECRAFT IS ACTUALLY
TORQUING - IT'S OFF IT'S PITCH, THAT'S ALL IT'S COSTING US EARLIER
ON THE RADIATOR DEGRADATION TEST. WE THINK IT'S JUST THE WAY IT

APOLLO 7 COMMENTARY, 10/15/68, GET: 983600 (CDT: 12:38P) 324/2

GOES THROUGH AN ATTITUDE AT A CERTAIN SURGE AFFECT, WHAT LITTLE THERE IS.

CAPCOM OKAY.

SC THAT'S A PRETTY GOOD TRACK ON THE (GARBLE) THERE, MOST OF THE PULSE IN THAT DIRECTION IN PITCH. AND YOU CAN SEE WHAT HAPPENED.

CAPCOM OKAY, WE'LL GET A LITTLE MORE ACCURATE HACK AT IT WHEN WE TAKE A LOOK AT THIS STRIP CHART.

SC RIGHT; LET ME KNOW WHAT YOU TAKE NOTE ON IT.

CAPCOM OKAY.

CAPCOM APOLLO 7, HOUSTON. WE'D LIKE TO HAVE YOU TURN YOUR 02 FANS, TANK 2, ON FOR 3 MINUTES.

SC ON. ROGER. I FINISHED THE HYDROGEN STRATIFICATION TEST AND IT'S ABOUT LIKE THE FIRST ONE, THERE WAS A SLIGHTLY NOTICEABLE PRESSURE DECREASE WHEN I TURN THE FANS ON. ON THE ORDER OF MAYBE 2 PSI, SOMETHING LIKE THAT, AND IT'S STABILIZED OUT RIGHT HERE.

CAPCOM OKAY, REAL FINE WALT.

SC JACK, NOTE THE PITCH RATE RIGHT NOW. IT IS DECREASING YET I HAVE NOT TURNED PITCH (GARBLE). AND THERE ARE NO THRUSTERS FIRING. IT'S A GOOD PASS TO MAKE NOTE WHAT WE'RE TALKING ABOUT.

CAPCOM OKAY, WE GOT IT; WE'LL LOOK AT IT REAL CLOSE.

SC OKAY, THERE IS NO PITCH (GARBLE) I'VE MADE A NOTE OF THIS ALL DURING THE FLIGHT AND THOUGHT ON THIS PASS TO GET A RECORD ON IT. NOTE THE PITCH RATE IS DECREASING ALL THE TIME.

CAPCOM OKAY, WE'LL REALLY TAKE A GOOD LOOK AT IT.

SC OKAY, THIS IS WHAT WE HAD A HECK OF A TIME TRYING TO EXPLAIN TO OURSELVES. IT WAS PITCHING IN THE RIGHT DIRECTION SO I WASN'T GOING TO TAKE IT OUT. I WAS GOING TO PITCH ZERO. THERE WAS NO IVA DURING THAT EITHER BY THE WAY.

CAPCOM OKAY, COPY THAT; IT SOUNDS LIKE YOU GOT A BUILT IN ORB RATE WALKER THERE.

SC YEAH, SEE THERE; IT'S ALMOST ZERO PITCH. I HAVEN'T DONE A THING TO IT. IN FACT, (GARBLE) PITCH THAN THE 326.

CAPCOM ROGER; THAT'S WHAT WE'RE LOOKING -

SC (GARBLE) THAT'S 2 MORE.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 984600 (CDT 12:48P) 325/1

SC - WE DIDN'T KNOW WHAT WAS HEATING US UP DURING THE RADIATOR DEGRADATION TEST. WE WERE GOING THROUGH THESE KIND OF ATTITUDES, AND HAD TO WORK TO GET THROUGH.

CAPCOM COPY. WE STILL WERE NOMINAL ON FUEL DURING THAT WHOLE TEST.

SC UNDERSTAND BUT (GARBLE) IS ABOUT LIKE THIS. (GARBLE) BACK TO ZERO AGAIN.

CAPCOM ROGER.

SC JACK, BEING NOMINAL ON THAT TEST, IT COME OUT 3 POINTS (GARBLE). DONN AND I - ON NUMEROUS TRIES THE SIMULATOR RAN WELL BELOW TH; NOMINAL FUEL USAGE ON THAT THING WHERE THERE WERE NO PARTS.

CAPCOM THAT'S REAL INFORMATION, WALT.

SC (GARBLE)

SC HOUSTON, DO YOU STILL READ?

CAPCOM ROGER, WE ARE STILL READING YOU, WALLY.

SC THAT'S A ZERO READING SEVERAL PULSES.

(GARBLE) READING THIS ONE, OVER.

CAPCOM SAY AGAIN.

SC (GARBLE) REDUCING THE DATA ON THIS ONE.

CAPCOM WE HAVE PEOPLE BUSY ON IT, AND WE ARE WATCHING IT RIGHT HERE.

SC THAT'S IT. DO YOU THINK IT IS GOING TO REACH (GARBLE). I'M BACK TO ZERO AGAIN. (GARBLE) THE BEST EXERCISE IN ROCKET (GARBLE)

SC AND IT'S BACK TO ZERO AGAIN. (GARBLE) CANARY IN ABOUT 2 (GARBLE)

SC YOU MIGHT KNOW IT'S NOT PRECISE (GARBLE) CANARY IS MUCH MORE PRECISE THAN IT IS (GARBLE).

CAPCOM ROGER.

SC (GARBLE) GIVE IT TO YOU.

SC WELL, (GARBLE) FROM THE FLIGHT PLAN THAT 60 PERCENT HYDROGEN (GARBLE) IS NOMINALLY AT 102 TO 103 (GARBLE). ARE WE RUNNING PRETTY MUCH NOMINALLY OR BEHIND OR WHAT?

CAPCOM WE ARE ABOUT TO LOSE YOU HERE OVER ANTIGUA. WE WILL PICK YOU UP AT ASCENSION AT 56.

PAO APOLLO CONTROL HOUSTON HERE 98 HOURS AND 49 MINUTES INTO THE FLIGHT. A MOST INTERESTING PASS. YOU HEARD WALLY SCHIRRA DESCRIBE AN UNUSUAL PHENOMENA, APPARENTLY THE CREW HAS NOTED EARLIER IN THE FLIGHT, AND AT ONE POINT SCHIRRA DESCRIBED IT AS ALMOST AN ATMOSPHERIC EFFECT ON THE SPACECRAFT. THAT'S AT 90 MILES OUT, NAUTICAL MILES, ALTITUDE AND OF COURSE, THAT COMMUNICATION HAS TRIGGERED A LOT OF PEOPLE TO GET BUSY AND LOOK CHARTS AND LOOK AT DATA. I CAN IMAGINE THEY WILL BE BUSY FOR SOME TIME TRYING TO RUN THE ANSWER TO THAT ONE DOWN.

APOLLO 7 COMMENTARY, 10/15/68, GET: 984600 (CDT 12:48P) 325/2

PAO THIS IS APOLLO CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 985630 (CDT 12:58) 326/1

PAO THIS IS APOLLO CONTROL HOUSTON, 98 HOURS, 56 MINUTES INTO THE FLIGHT AND THROUGH ASCENSION, WE EXPECT CONTACT ANY MOMENT. WE'LL STANDBY AND KEEP THE LINE OPEN.

CAPCOM APOLLO 7, HOUSTON THROUGH ASCENSION.
APOLLO 7, HOUSTON THROUGH ASCENSION.

SC ROGER.

CAPCOM OKAY, YOUR LINE IS CLEAR. WALLY, ON THIS PITCH RATE, IT WOULD HELP US OUT A LITTLE BIT, WE COULD GET A LITTLE BIT MORE DATA, IF YOU WOULD PUT YOUR GDC ON FPAI NO. 1.

SC WHAT WE HAD, WAS RIGHT AT 90 DEGREES. WE'RE ONLY LOCKED INTO A DEAD BAND NOW, JACK. WE'RE RIGHT ABOUT - FIXED UP AT 090, STRAIGHT UP.

CAPCOM OKAY, COPY. WE GET BETTER DATA ON THAT. PITCH RATE FOR - ON TELEMETRY, IF WE CAN PUT THE GDC ON FPAI NO. 1.

SC I SEE, OKAY. NEXT TIME WE SEND. WE'LL DO THAT.

CAPCOM OKAY, AND - .

SC IT APPEARS, THAT APPARENTLY, WE HAD THE SPACECRAFT POINTED STRAIGHT UP, THE COMMAND ON THE X-AXIS THIS MORNING, AWAY FROM THE EARTH ON THE RADIO.

CAPCOM YOU SAY THAT'S WHEN IT OCCURRED, WHEN THE X-AXIS WAS POINTED AWAY FROM THE EARTH.

SC THAT'S THE WAY IT WAS THIS TIME, AND THAT'S THE WAY IT SEEMS TO BE IN THE PAST.

CAPCOM OKAY, REAL FINE, THAT GIVES US A GOOD CLUE.

SC IT'S NOT VIBRATED AROUND NOW.

CAPCOM OKAY, HAS IT QUIT NOW WALLY?

SC IT'S (GARBLE) NOW ABOUT 140 DEGREES, VERTICAL.

CAPCOM OKAY, REAL FINE, AND RELATIVE TO WALT'S QUESTION ON THE HYDROGEN USAGE, WE FIGURE YOU'RE ABOUT 1 LB. ABOVE NOMINAL.

SC ROGER, AND WE LOOK LIKE WE ARE EVEN BETTER OFF WITH OXYGEN.

CAPCOM THAT'S AFFIRMATIVE.

CAPCOM APOLLO 7, HOUSTON. ONE MINUTE LOS ASCENSION. TANANARIVE AT 99 PLUS 13.

SC ROGER, JACK. DID THE DOCTOR EVER SAY ANYTHING ABOUT USING THIS ANTIBIOTIC AS A PREVENTATIVE MEDICINE UP HERE?

CAPCOM STANDBY. OKAY WALT, ON THAT QUESTION, THERE IS REALLY NOT ANY NEED TO USE - THAT IS THE ANTIBIOTIC. THEY DON'T FEEL THAT WOULD HELP OR CURE A COLD.

SC WELL, SO FAR, I'VE BEEN ABLE TO RESIST GETTING ONE, BUT IF THERE'S SOMEWAY I COULD HOLD IT OFF, I WOULD JUST AS SOON TAKE THE PILL, OR DO YOU WANT ME TO

APOLLO 7 COMMENTARY, 10/15/68, GET: 985630 (CDT 12:58P) 326/2

SC GO AND CATCH IT, THEN TREAT IT.
CAPCOM OKAY, WE'LL PICK YOU UP OVER TANANARIVE.
PAO THIS IS APOLLO CONTROL HOUSTON, 99 HOURS,
4 MINUTES INTO THE FLIGHT. YOU HEARD WALTER CUNNINGHAM
ASKING ABOUT TAKING AN ANTIBIOTIC FOR HIMSELF IN ORDER TO
PREVENT HIS GETTING A COLD. AT LEAST THAT'S THE WAY WE
UNDERSTOOD IT AND THE DOCTOR ADVISED THAT WOULD NOT HELP
PREVENT HIM FROM CONTACTING THE SAME COLD THAT BOTHERED
DONN EISELE AND WALLY SCHIRRA TODAY. THIS IS APOLLO CONTROL
HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 991655 (CDT 1:19P) 327/1

PAO APOLLO CONTROL HOUSTON, WE'RE 99 HOURS,
16 MINUTES. WE HAD A BRIEF CHAT WITH THE CREW BY TANANARIVE
A FEW MINUTES AGO, AND FROM THE TONE OF THE CONVERSATION
WITH WALT CUNNINGHAM, IT SOUNDED TO US LIKE THINGS WERE
QUIETING DOWN IN ORDER TO LET CMP DONN EISELE GET TO SLEEP.
HE'S, ACCORDING TO THE FLIGHT PLAN, ABOUT 1-1/2 HOURS TO
2 HOURS INTO HIS SLEEP CYCLE. AT THIS POINT, CUNNINGHAM
DID REPORT THAT THE SPACECRAFT WAS POWERING DOWN AND HERE'S
THE WAY HE REPORTED IT.

CAPCOM APOLLO 7, HOUSTON THROUGH TANANARIVE.
SC ROGER, JACK, YOU'RE 5 BY WE'RE AN HOUR
DOWN IN THE DRIFTING CONFIGURATION.
CAPCOM ROGER, COPY THAT. WE'LL BE STANDING .BY..
SC WE'RE GOING TO ACTIVATE THE ...

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 993540 (CDT 1:37P) 328/1

PAO THIS IS APOLLO CONTROL HOUSTON 99 HOURS
35 MINUTES. OVER CARNARVON A FEW MINUTES AGO WE HAD THIS
CONVERSATION.

CAPCOM APOLLO 7, HOUSTON THROUGH CARNARVON.
SC (GARBLED)

CAPCOM ROGER, FINE. WE'VE BEEN GOING OVER
SOME THE RESULTS OF THE KEYING TEST WE DID OVER THE STATES.
IT LEADS US TO TWO QUESTIONS WE WOULD LIKE TO ASK. ONE WAS
THE PMP IN AUXILIARY?

SC NEGATIVE.

CAPCOM AND THE NEXT QUESTION, WAS THE KEYING
DONE WITH THE PANEL SWITCH OR THE MIKE BUTTON?

SC I KEYED WITH THE MIKE BUTTON ON MY
CONTROL HEAD.

CAPCOM OKAY, THANK YOU.

SC (GARBLED)

CAPCOM GO AHEAD.

SC YOU SEE, WE POWERED DOWN AND (GARBLED)

CAPCOM WOULD YOU SAY AGAIN. WE DIDN'T COPY,
WALT.

SC I SAID I'VE GOT THE SPS POWERED DOWN.

CAPCOM ROGER.

SC THE SPS LOGIC BUTTON 3 DATA (GARBLED)
WE'VE ADDED TO THE REST.

CAPCOM OKAY, STAND BY. WE'LL GET YOU THE
ANSWER.

SC ROGER, MARK 15 CLICKS OF WATER FOR THE
CMP.

CAPCOM OKAY, WILL DO.

SC AND JACK, WHEN YOU GET A CHANCE WOULD
YOU GET AN UPDATE ON THE RCS PROFILE I HAVE ONBOARD?

CAPCOM OKAY AND WORK.

SC THANK YOU.

CAPCOM WALT, YOUR RCS READING ON YOUR PLOT WILL
BE 714.

SC ROGER, 714.

CAPCOM APOLLO 7 (BOTH TRANSMITTING AT ONCE)
SC WHEN WE OPERATE THE DMP ON AUXILIARY
WE SEEM TO BE (GARBLED) PRETTY GOOD CHECK ON THAT AREN'T WE?

CAPCOM I'M SORRY, WALT, I WAS TRANSMITTING
SOMETHING TO YOU AT THE SAME TIME. CAN YOU SAY AGAIN?

SC ROGER. WE HAVE COMING UP OVER CARNARVON
CMP POWERED OFF FULLY WITH AN S-BAND CHECK. ARE WE ALREADY
SATISFIED FOR THOSE BY AN EARLIER OPERATION IN AUXILIARY
FOR SOME TIME? (GARBLED) ASKING DO YOU WANT TO CONTINUE
THAT (GARBLED) AUXILIARY AND WHAT WERE YOU SAYING WHEN I
TRANSMITTED?

CAPCOM OKAY, WALT. WE DO WANT TO PUT THE PMP
TO AUXILIARY. THAT PUTS US IN OUR PCM DOWN ON THE FM.

APOLLO 7 COMMENTARY, 10/15/68, GET: 993540 (CDT 1:37P) 328/2

SC (CAPCOM TALKING ALSO) A LONG TIME (GARBLED)
LIKE THAT?

CAPCOM WALT, WE'LL HIT YOU AT GUAM AT 99 PLUS 39
AND HAWAII AT 99 PLUS 53.

SC OKAY, AND GIVE ME A CALL IF YOU WANT
PMP POWERED AUXILIARY.

CAPCOM WE WANT THE PMP ON AUXILIARY. THAT'S
JUST THE CONFIGURATION FOR THE TEST.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 993908 (CDT: 1:40P) 329/1

CAPCOM ROGER; 55. WE WOULD LIKE YOU TO PUT
YOUR B POWER TO OFF. I DIDN'T COPY THAT LAST ONE. SAY AGAIN.

SC APOLLO 7, HOUSTON; LOOKS LIKE WE'RE GETTING
ABOUT 2 BY ON THE COM HERE AT GUAM. AFTER THE POUND TEST
AT HAWAII, WE WOULD LIKE TO HAVE YOU COMMENT BRIEFLY ON THE
RESULTS OF THE SCANNING TELESCOPES; STAR COUNT. STAR COUNT.

CAPCOM APOLLO 7, HOUSTON. I READ YOUR FLY BY
WALT. AND RELATIVE TO WALLY'S QUESTION ON A SCS LOGICS BUS,
IT WILL SAVE US ABOUT TWO AMPS AND YOU CAN TURN THAT SWITCH
OFF IF YOU LIKE.

SC OKAY, WE'LL TURN IT OFF; IT'LL COOL IT
DOWN IN HERE A LITTLE BIT; IT'S BEEN GETTING WARM AND SUNNY.

CAPCOM ROGER; COPY. I SAID I WOULD. ROGER,
COPY THAT. YOU'RE 1 MINUTE LOS GUAM. HAWAII AT 99 PLUS 53.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 995450, (CDT: 1:57P) 330/1

PAO AND THIS IS APOLLO CONTROL, HOUSTON, 99
HOURS, 54 MINUTES. THE FIRST CALL HAS GONE UP TO 7 THROUGH
HAWAII.

CAPCOM APOLLO 7, HOUSTON THROUGH HAWAII.

CAPCOM APOLLO 7, HOUSTON THROUGH HAWAII.

PAO APOLLO CONTROL, HOUSTON. WE'RE - YOU
ARE GETTING AN EARFUL OF WHY WE ARE TAKING THE CIRCUIT DOWN.
WE'LL TRY AGAIN WHEN WE GET TO CALIFORNIA.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 995810 (CDT 2:00P) 37''

PAO THIS IS APOLLO CONTROL HOUSTON. WE HAVE GOOD COM NOW AND SCHIRRA IS GOING TO GIVE US A WINDOW REPORT.

SC THE CHAFF THAT'S ON THE PERIMETER IS FOGGING AROUND THE PERIMETER. IT'S A (GARBLE) IMPRESSION ABOUT (GARBLE) RIGHT NOW ABOUT 1/2 INCH INTO THE PERIMETER, THAT IS ON A GOOD CLEAR WINDOW. THE APS WINDOW (GARBLE) SHORTLY AFTER WE HAD INSERTION INTO ORBIT. LARGE CONDENSATION NOW IN THE INNER SURFACE OF THE INNER PANE AND THE CENTER OF THE WINDOW, A CIRCLE ABOUT 1/2 INCH IN DIAMETER, LOOKS LIKE SNOWFLAKE CRYSTALS ALL ACROSS IT, ACTUALLY OPAQUE. WINDOW NUMBER 4 (GARBLE). RIGHT AROUND THE EDGE, ARE THE - INNER SURFACE OF THE INNER PANE - OUTER PANE TOWARDS THE -Z AXIS PRIMARILY, INCLUDING FROM THE EDGE (GARBLE).

CAPCOM OKAY, APOLLO 7, HOUSTON. WE LOST YOU ON THE HANDOVER THERE, WE WILL PICK YOU UP WITH THE LAST HALF, STARTING WITH WINDOW 4, WHEN WE GOOD CONTACT WITH THE HUNTSVILLE.

SC (GARBLE)

CAPCOM ROGER, WE COPY. WINDOW 3, WE CAUGHT ALL - (GARBLE) TO GIVE US WINDOW 4.

SC (GARBLE)

SC DO YOU READ HOUSTON?

CAPCOM OKAY, READ YOU 5 BY. WE ARE READY TO COPY WINDOW 4.

SC OKAY, JUST TO GET IT ON THE REPORT, WE JUST BROKE 100 HOURS.

CAPCOM ROGER, WE GOT THAT.

SC OKAY. WINDOW NUMBER 4 HAS STARTED TO CLOUD, IT'S ON THE EDGE AND WORKING ITS WAY INWARD. THE WORST SPOT NOW 3/8 TO 1/2 -

CAPCOM OKAY, COPY THAT.

SC OKAY (GARBLE) PHOTOGRAPHY. THE WINDOW TO THE SIDE TO STARTING TO GET SOME KIND OF A FILM ON THE INNER SURFACE OF THE OUTER PANE, BUT YOU HAVE TO LOOK PRETTY CLOSE TO SEE IT. IT IS STILL PERFECTLY CLEAR FOR PHOTOGRAPHY. OKAY, WINDOWS 2 AND 4 ARE ALL SUFFICIENT FOR STAR WORK BUT THE OTHER ONES ARE NOT.

CAPCOM OKAY, COPY THAT.

SC JACK, YESTERDAY WAS THE FIFTH ANNIVERSARY OF THE ENTRY OF D. EISELE AND W. CUNNINGHAM INTO THE PROGRAM.

CAPCOM WE COPY THAT ANNIVERSARY.

SC IS IT SAFE TO (GARBLE)

CAPCOM SAY AGAIN.

SC (GARBLE)

CAPCOM WE DID'T COPY THAT, WALLY, COULD

APOLLO 7 COMMENTARY, 10/15/68, GET: 995810 (CDT 2:00P) 331/2

YOU GIVE US WINDOW NUMBER 1 AGAIN?

SC I THINK THE WINDOW IS GETTING WORSE,
CLOUDING THE VISION DUE TO THE OVER BOARD DUMP. THE PARTICLES
DEPENDING ON THE SPACECRAFT ATTITUDE SEEMED TO BOUNCE OFF THE
(GARBLE) OVER. DO YOU READ?

CAPCOM OKAY, GOT IT.

SC MY QUESTION WAS, IS DEKE SLAYTON STILL IN HOUSE?

CAPCOM OKAY, OUR COMM WITH THE HUNTSVILLE IS
DETERIORATED. WE'RE NOT READING YOU TOO WELL. WE'LL PICK YOU
UP OVER THE STATES.

SC OKAY.

CAPCOM APOLLO 7, HOUSTON.

SC ROGER, LOUD AND CLEAR.

CAPCOM YOU'RE LOUD AND CLEAR TOO. WOULD YOU
GET YOUR PMP SWITCH TO NORMAL. AND THEN WE
WOULD LIKE TO HAVE YOU CONFIGURE FOR THE RELAY MODE.

SC ROGER.

SC WOULD LIKE YOU TO READ OUT GBC VERSUS

CMC.

CAPCOM APOLLO 7, HOUSTON. ARE YOU CONFIGURED
FOR THE RELAY TEST HERE AT GUAYMAS.

SC APOLLO 7, DO YOU READ?

CAPCOM ROGER, APOLLO 7, DO YOU READ HOUSTON?

SC HOUSTON, APOLLO 7, OVER.

CAPCOM GO AHEAD.

SC WE HAVEN'T CONFIGURED YET HOUSTON.

CAPCOM ROGER, COPY. I UNDERSTAND YOU HAVE
NOT CONFIGURED FOR THE RELAY TEST.

SC ROGER, I HAVEN'T HAD THE CUE YET.

CAPCOM OKAY, WE CAN PUT YOUR PMP POWER SWITCH
TO NORMAL AND CONFIGURE FOR THE RELAY TEST.

SC ROGER, CONFIRM. POWER PMP NORMAL AND
IS CONFIGURED FOR RELAY TEST I RAN OUT OF IT IN ORDER TO GET THE
CONTACT WITH YOU AGAIN. I'M AT DUPLEX A NOW AND CONTINUE
TO RELAY.

CAPCOM ROGER, I UNDERSTAND APOLLO 7, YOU'RE
CONFIGURED FOR RELAY TEST. WE'RE NOW PERFORMING THE RELAY
TEST. ROGER, APOLLO, HOUSTON, COUNTING 1, 2, 3, 4, 5 -
5, 4, 3, 2, 1 PERFORMING THE RELAY TEST.

CAPCOM HOUSTON PERFORMING THE RELAY TEST -
1, 2, 3, 4, 5 - 5, 4, 3, 2, 1.

END OF TAPE

APOLLO 7 COMMENTARY 10/15/68, GET: 1000910 (CDT 2:14P) 332/1

CAPCOM THIS IS HOUSTON PERFORMING THE RELAY
TEST. 1, 2, 3, 4, 5, 6, 7, 9, 9, 8, 7, 6, 5, 4, 3, 2, 1.
CAPCOM APOLLO 7, HOUSTON
SC ROGER, WE COPIED YOUR RELAY MODE CHECK.
HOW DID IT DO?
CAPCOM WELL, THERE IS SOME QUESTION ON IT. CAN
YOU CONFIRM THAT YOU WERE IN THE RELAY MODE PER YOUR COM
SLIDE RULE?
SC THAT'S AFFIRMATIVE.
CAPCOM OKAY, FINE, THANK YOU.
SC DID IT WORK OR DID IT NOT?
CAPCOM GROUND DIDN'T COPY THE RELAY, SO WE HAD
SOME QUESTION THERE.
SC ROGER WE READ YOU.
SC MAGAZINE S IS 69 WEST COAST OF SOUTHERN
MEXICO.
CAPCOM OKAY, COPY THAT,

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 1002100 (CDT 2:23P) 333/1

PAO THIS IS APOLLO CONTROL HOUSTON, 100 HOURS, 21 MINUTES INTO THE FLIGHT. QUESTIONS HAVE RISEN FROM THAT LAST PASS ACROSS THE STATES, ACTUALLY DOWN THROUGH THE TEXAS - THE GUAYMAS, TEXAS, THEN ANTIGUA AREA. THE TEST BEING CARRIED OUT THERE BY OUR CAPCOM, JACK SWIGERT, HERE IS A VOICE RELAY TEST WHEREIN HE BROADCASTED A COUNT AND SEVERAL OTHER THINGS TO THE SPACECRAFT AND THEN THE VOICE TRANSMISSION WAS TO BE IMMEDIATELY RELAYED BACK TO EARTH. WE'RE NOT JUST SURE YET HOW SUCCESSFUL OR HOW UNSUCCESSFUL THE TEST WAS. WE KNOW IT WAS AT LEAST PARTIALLY SUCCESSFUL, BUT THE IDEA IS IN LATER FLIGHTS WHEN WE ARE FLYING A LUNAR MODULE, WE WOULD LIKE TO BE ABLE TO SET UP THIS RELAY CONDITION FROM - SAY PILOTS OR ASTRONAUTS IN A LUNAR MODULE, RELAY THEIR COM THROUGH THE COMMAND MODULE AND BACK DOWN TO EARTH, OUT AT LUNAR DISTANCE, AND WE ARE INTERESTED IN SEEING JUST HOW WELL THAT ROUTING WORKS. WE HAVE NO ADDITIONAL COMM AND THIS IS APOLLO CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 1004700 (CDT 2:49P) 334/1

PAO THIS IS APOLLO CONTROL, 100 HOURS,
47 MINUTES. APOLLO 7, ON THE NIGHT SIDE OF THIS REVOLUTION
COMING UP ON THE STATION AT TANANARIVE NOW.

CAPCOM APOLLO 7, HOUSTON. APOLLO 7, HOUSTON
THROUGH TANANARIVE. APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.
APOLLO 7, HOUSTON.

CAPCOM TANANARIVE M AND O, HOUSTON CAPCOM,
ARE WE GETTING OUT TO YOU?

TAN M/O HOUSTON CAPCOM, TANANARIVE M AND O.
AFFIRMATIVE, THEY ARE COPYING YOU. THEY ARE VERY POOR,
VERY POOR.

CAPCOM APOLLO 7, HOUSTON TRANSMITTING IN THE
BLIND. WE'RE TRYING TO FIND A PIECE OF THE DATA FOR THE
RADIATOR DEGRADATION TEST AROUND 96 HOURS. THIS WAS WHEN
WE WERE CONSIDERING TERMINATING THE TEST AND WALT CAN
YOU CONFIRM TAPE RECORDER ON AT THAT TIME? TANANARIVE
M AND O, DID YOU COPY?

TAN M/O TANANARIVE DID NOT COPY. HOUSTON CAPCOM.
TANANARIVE M AND O, THEY ROGERED.

SC (GARBLE) RIGHT ON THE MINUTE.

CAPCOM ROGER, UNDERSTAND YOU DID HAVE IT ON.
THANK YOU.

SC THAT'S AFFIRMATIVE.

PAOCAPCOM APOLLO 7, HOUSTON. ONE MINUTE LOS.
MERCURY AT 11.

PAO THIS IS APOLLO CONTROL AT 100 HOURS,
54 MINUTES. TANANARIVE HAS LOS NOW. NEXT STATION TO
ACQUIRE WILL BE THE TRACKING SHIP MERCURY AT 101 HOURS,
11 MINUTES.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 1011130 (CDT 3:15P) 335/1

PAO THIS APOLLO CONTROL, 111 HOURS AND 11 MINUTES INTO THE MISSION. APOLLO 7 COMING UP ON THE MERCURY NOW. GUAM HAS OVERLAPPING COVERAGE HERE, BUT GUAM REPORTS THEIR UNIFIED S-BAND ANTENNA IS NOT OPERATIVE THIS PASS AND GUAM WILL HAVE VHF CAPABILITY ONLY.

CAPCOM APOLLO 7, HOUSTON. MERCURY STANDING BY.

SC ROGER. SAY, RON, I WANTED TO CONFER THAT WE RECHECKED OUR SWITCHES AT THE RELAY MODE AND EVERYTHING IS CONSIDERED APPROPRIATE (GARBLE)

CAPCOM APOLLO 7, HOUSTON.

SC APOLLO 7, HOUSTON, DO YOU READ US?

CAPCOM I MISSED PART OF YOUR COMMENTS THERE, BUT THE RELAY MODE WORKED OKAY.

SC OH, IT DID WORK OKAY? JACK INDICATED THAT THE U S-BAND WASN'T CONCLUSIVE.

CAPCOM NO, THAT WAS OUR MISTAKE, IT WORKED OKAY.

SC OKAY, AND I UNDERSTAND WE HAVE THE SAME CHECK COMING UP IN A COUPLE OF HOURS?

CAPCOM SAY IT AGAIN. WHAT CHECK?

SC IT WILL BE THE SAME THING COMING UP FOR A NEW CHECK OVER HAWAII IN A COUPLE OF HOURS AND I WANTED TO CONFER THAT WE DID TURN ON THE TAPE RECORDER FOR ALL OF THE DATA POINTS, AND ONE OF THEM WE WERE 3 OR 4 MINUTES LATE ON THE TEST, BUT THE ONE IN QUESTION THAT YOU ASKED ABOUT I BELIEVE WE TURNED ON RIGHT ON THE DOT.

CAPCOM OKAY, ROG. THANK YOU.

CAPCOM APOLLO 7, HOUSTON. (GARBLE)

SC WE'RE ON THE FRAME 75 MAGAZINE (GARBLE) 0. WE'RE IN THE SUNRISE (GARBLE)

CAPCOM SAY IT AGAIN, WALLY. NOT TOO CLEAR THERE.

SC WE'RE IN 75 MAGAZINE BACK 0 (GARBLE) 0 (GARBLE) STATION AT SUNRISE (GARBLE) BY IVORY.

CAPCOM ROGER, COPY.

PAO APOLLO CONTROL AT 101 HOURS 20 MINUTES GUAM HAS LOS NOW. HAWAII WILL ACQUIRE IN ABOUT 8 MINUTES.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 1012840 (CDT 3:30 P) 336/1

PAO THIS IS APOLLO CONTROL, 101 HOURS 28
MINUTES, APOLLO 7 AT HAWAII NOW. THERE'S OVERLAPPING COVER-
AGE WITH THE TRACKING SHIP HUNTSVILLE AND THEN INTO THE
CALIFORNIA STATION AND THEN INTO THE GUAYMAS MEXICO STATION.
WE'LL STAND BY FOR COMMUNICATION DURING THESE PASSES.

CAPCOM APOLLO 7, HOUSTON, ONE LINE FLIGHT PLAN
UPDATE.

SC GO AHEAD.

CAPCOM ROGER, AT 102 PLUS 20 DELETE CRYO TEST
AT THIS TIME.

SC ROGER, WE DID IT EARLIER, AT 50 PERCENT.

CAPCOM ROGER, WE'RE ESTIMATING 60 - YOU'LL HAVE
ABOUT 60 PERCENT O2 AT ABOUT 134 HOURS SOMETHING LIKE THAT.
WE'LL UPDATE LATER ON.

SC ROGER, THE O2 WILL BE DONE LATER, YOU
MEAN.

CAPCOM THAT'S AFFIRMATIVE.

SC VERY WELL, WE CAN JUST HAVE A STANDING
FLIGHT PLAN ITEM ON THAT, IT'S SUPPOSED TO BE DONE AT
60 PERCENT SO WE'LL JUST DO IT WHEN IT GET TO 60 PLUS OR
MINUS 5.

CAPCOM SOUNDS GOOD.

SC CAN WE HAVE A CHART UPDATE TOO?

CAPCOM SAY AGAIN.

SC A CHART UPDATE.

CAPCOM WILCO, STANDBY.

CAPCOM APOLLO 7, HOUSTON, I HAVE YOUR MAP
UPDATE.

SC GO AHEAD.

CAPCOM ROGER, REV 64, GET 101 PLUS 06 PLUS 52,
LONGITUDE 106.8 EAST, RIGHT ASCENSION 04 PLUS 54.

SC ROGER, THANK YOU.

CAPCOM APOLLO 7, HOUSTON, WE FOUND THE DATA IN
QUESTION ON THE RAD TEST.

SC ROGER, THANK YOU.

CAPCOM HUNTSVILLE TWO WAY LOG SIGNAL, TOO
WEAK FOR VALID RANGE.

CAPCOM HUNTSVILLE TWO WAY LOG, VALID RANGE.

PAO APOLLO CONTROL AT 101 HOURS 37 MINUTES
THIS IS THE POINT IN THE FLIGHT PLAN WHERE THE CREW IS
PHOTOGRAPHING THE WINDOWS IN AN ATTEMPT TO RECORD THE
DEPOSITS THAT ARE ON THE WINDOWS. WE'LL CONTINUE TO STAND
BY THROUGH THIS PASS.

SC HOUSTON, APOLLO 7.

CAPCOM HOUSTON, GO.

SC THIS IS CMP, (GARBLE) THE WATERS ON, THE
LMP (GARBLE).

CAPCOM AWFUL GARBLED, WALT, SAY AGAIN.

APOLLO 7 COMMENTARY, 10/15/68, GET: 1012840 (CDT 3:30 P) 336/2

SC THIS IS THE CMP, (GARBLE).
CAPCOM I CANN'T READ YOU HERE, WE'LL PICK THAT
- PICK YOU UP IN GUAYMAS IN ABOUT 2 MINUTES.
PAO THIS IS APOLLO CONTROL 101 HOURS 39
MINUTES, FLIGHT DIRECTOR GLYNN LUNNEY HAS LEFT THE CONTROL
CENTER NOW AND WE'RE ESTIMATING THE NEWS CONFERENCE IN
APPROXIMATELY 10 MINUTES.
CAPCOM APOLLO 7, HOUSTON, SAY AGAIN YOUR LAST
TRANSLATION NOW.
SC ROGER, RON, I WAS JUST HAVING SOME WATER
15 CLICKS FOR LMP AND 30 CLICKS FOR THE - EXCUSE ME 15
CLICKS FOR THE CMP AND 30 CLICKS FOR THE LMP.
CAPCOM ROGER, THANK YOU.

END OF TAPE

APOLLO 7 COMMENTARY, 10/14/68, GET: 1014040 (CDT 3:45P)337/1

CAPCOM

THIRTY SECONDS LOS TANANARIVE AT 20.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 1022210 (CDT 4:25) 338/1

PAO THIS IS APOLLO CONTROL 102 HOURS 22 MINUTES, APOLLO 7 IS OVER TANANARIVE. THERE HAS BEEN NO CONVERSATION YET, CAPCOM RON EVANS PUT IN A CALL A FEW MOMENTS AGO AND INFORMED THEM WE WERE STANDING BY.

CAPCOM APOLLO 7, HOUSTON, 2 MINUTES TO LOS, TANANARIVE, MERCURY AT 43.

PAO APOLLO CONTROL AT 102 HOURS 29 MINUTES, TANANARIVE HAS LOS NOW. WE'RE IN A QUIET TIME IN THE FLIGHT PLAN, WE HAD NOTHING TO PASS UP TO APOLLO 7 DURING THIS PASS AND OBVIOUSLY THEY DID NOT FEEL THE NEED TO COMMUNICATE WITH US. THE NEXT STATION TO ACQUIRE WILL BE THE MERCURY AT 102 HOURS 43 MINUTES.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 1024400 (CDT 4:45 P) 339/1

PAO THIS IS APOLLO CONTROL AT 102 HOURS 43
MINUTES AND WE'LL MONITOR THE APOLLO 7 PASS OVER THE
TRACKING SHIP MERCURY NOW.

CAPCOM APOLLO 7, HOUSTON, MERCURY STANDING BY.
SC ROGER, LOUD AND CLEAR.

CAPCOM ROGER, SAME.
SC HOUSTON, APOLLO 7.
CAPCOM HOUSTON, GO.
SC ROGER, YOU CAN GIVE WALT CREDIT FOR
12 CLICKS OF WATER AND GIVE ME 3.
CAPCOM WILCO.
SC AND THE WATER'S TASTING VERY GOOD, SO
WE'LL CHLORINATE ONE MORE TIME AND SEE HOW BAD IT GETS, AND
LET THAT BE THE LAST DOSE.

CAPCOM I UNDERSTAND WHAT YOU'RE SAYING.
SC OKAY, THANK YOU.
CAPCOM APOLLO 7, HOUSTON.
SC GARBLE.
CAPCOM APOLLO 7, HOUSTON, YOU'RE UNREADABLE.
SC DON'T FORGET THAT WE SHOULD CHLORINATE
EVERY OTHER DAY, SO WE'LL SEE HOW THAT WORKS OUT.

CAPCOM ARIA.
SC IS THE ARIA IN THE RELAY MODE.
CAPCOM WALT, THATS AFFIRMATIVE, RECONFIGURE
FOR RELAY MODES PRIOR TO 103 PLUS 02.
SC WILCO. OKAY WE'LL BE ON DUPLEX A AS
WE GO OVER THE HILL NOW.

CAPCOM AFFIRMATIVE. AND WALT, WE'D LIKE YOU
TO CYCLE 02 TANK TWO FANS, ON FOR FIVE MINUTES THEN OFF.
SC AFFIRMATIVE.
CAPCOM APOLLO 7, HOUSTON, OPPOSITE OMNI.
SC RON, WE JUST MADE A BIG DISCOVERY, I
JUST TURNED THE 02 FANS NUMBER TWO DOWN ON AND IT STARTED
BY DET IN THE LOWER EQUIPMENT BAY.

CAPCOM BEAUTIFUL.
SC DID YOU READ THAT, RON.
CAPCOM AFFIRMATIVE, DET IN THE LEB STARTED
WHEN YOU TURNED THE FANS ON.

SC THAT'S CORRECT.
SC ALWAYS EXCITEMENT UP HERE. THAT LENDS
CREDENCE TO THE THEORY THAT IT DOES TOUCH THE SPACECRAFT.

CAPCOM SAY YOUR LAST COMMENT, WALLY.
SC THAT LENDS CREDENCE TO THE THEORY THAT
(GARBLE) DO ALL TOUCH THE SPACECRAFT.

CAPCOM ROGER, WE WE'LL READ IT BACK ON THE
TAPE, I STILL DIDN'T GET YOU.
CAPCOM APOLLO 7, HOUSTON.
SC GO AHEAD.

APOLLO 7 COMMENTARY, 10/15/68, GET: 1024400 (CDT 4:45P) 339/2

CAPCOM

OPPOSITE OMNI.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 1025040 (CDT 4:52P) 340/1

CAPCOM APOLLO 7, HOUSTON, 30 SECONDS LOS. HAWAII
AT 02.

SC

ROGER.

PAO

APOLLO CONTROL AT 102 HOURS 51 MINUTES.
THE MERCURY HAS LOS NOW. DURING THE PASS OVER HAWAII AT
103 HOURS 02 MINUTES THE VOICE RELAY TEST WILL BE RUN AGAIN.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 1030215 (CDT 5:05P) 341/1

PAO THIS IS APOLLO CONTROL AT 103 HOURS
2 MINUTES. APOLLO 7 IS AT HAWAII NOW. WE'LL MONITOR THIS
PASS.

CAPCOM HOUSTON.
SC ROGER, WE READ YOU LOUD AND CLEAR.
CAPCOM ROG. YOU'RE A LITTLE WEAK.
CAPCOM APOLLO 7, HOUSTON. WOULD YOU LIKE TO
TRY IT AGAIN? DO YOU READ?
CAPCOM APOLLO 7, HOUSTON.
CAPCOM APOLLO 7, HOUSTON.
SC ROGER.
CAPCOM ROGER. YOU'RE NOT COMING BACK VERY WELL.
BREAK HAWAII M&O. S-BAND UPLINK INHIBIT.

CAPCOM APOLLO 7, HOUSTON FOR A BACKUP VOICE
CHECK. I'M TRYING TO BRING IT UP TO YOU ON 259.7. YOU SHOULD
BE TRANSMITTING MY VOICE BACK DOWN TO HAWAII ON THE U S-B
LINK.

CAPCOM APOLLO 7 TO HOUSTON CAPCOM, TRANSMITTING
FOR A VOICE RELAY MODE. TRANSMITTING UP TO YOU ON 259.7.
MY VOICE SHOULD BE COMING BACK THROUGH THE SPACECRAFT AND
BACK DOWN TO HAWAII ON THE U S-B.

CAPCOM APOLLO 7, HOUSTON REQUEST THAT TELEMETRY
COMMAND TO RESET MOMENTARILY AND IN NORMAL AT LOS.

SC ROGER, DO YOU READ RON?
CAPCOM AFFIRMATIVE. LOUD AND CLEAR NOW.
SC OKAY, YOU'RE TRANSMITTING OKAY. DID YOU

GET A RELAY CHECK?
CAPCOM I STILL HAVEN'T GOT A READING HERE YET.

I THINK IT'S OKAY.
SC OKAY, WE READ YOU. I'LL CALL. HELLO,

THIS IS WALLY. HELLO THIS IS WALLY.

CAPCOM GO AHEAD.
SC DIS YOU CALL US A COMSAT?
CAPCOM A TIME CHECK?
SC NO, DID YOU CALL US A COMSAT?

CAPCOM I CAN'T UNDERSTAND. SAY IT AGAIN, WALLY.
SC DID YOU CALL US A COMSAT?

CAPCOM ROG. YOU ARE A COMSAT.
SC ROGER.

CAPCOM I'M A LITTLE DEAF.
SC HUNTSVILLE (GARBLE) DOWN RANGE.
CAPCOM APOLLO 7, HOUSTON. 1 MINUTE LOS.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 1031230 (CDT: 5:15P)342/1

CAPCOM APOLLO 7 HOUSTON, ONE MINUTE LOS BREAK,
BE ADVISED VOICE RELAY QUALITY WAS GOOD. APOLLO 7 HOUSTON
AT TANANARIVE AT FIVE FOUR.

PAO THIS IS APOLLO CONTROL AT 103 HOURS, 13
MINUTES. THE HUNTSVILLE HAS LOS NOW. THAT SHIP HAD OVER-
LAPPING COVERAGE WITH HAWAII. THE VOICE RELAY TEST WAS
SUCCESSFULLY CONDUCTED OVER THE HAWAII STATION. THIS IS THE
TEST THAT SIMULATES TRANSMITTING TO THE LM, THE LUNAR MODULE
THROUGH THE COMMAND MODULE. THE VOICE RELAY QUALITY WAS
REPORTED AS GOOD. THE NEXT STATION TO ACQUIRE APOLLO 7 WILL
BE TANANARIVE AT 103 HOURS, 54 MINUTES. THIS IS MISSION
CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 1035450 (CDT 6:00P) 343/1

PAO THIS IS APOLLO CONTROL AT 103 HOURS
54 MINUTES, APOLLO COMING UP ON THE TANANARIVE STATION NOW,
IN ITS 66 REVOLUTION. WE'LL STAND BY TO MONITOR THIS PASS.

CAPCOM APOLLO 7, HOUSTON, THROUGH TANANARIVE,
STANDING BY.

CAPCOM APOLLO 7, HOUSTON, STANDING BY.

CAPCOM APOLLO 7, HOUSTON, THROUGH TANANARIVE.

CAPCOM APOLLO 7, HOUSTON, JOIN TANANARIVE
THROUGH MERCURY AT 18.

PAO THIS IS APOLLO CONTROL, 104 HOURS AND
2 MINUTES, TANANARIVE HAS LOS NOW. THERE WAS NO CONVERSATION
DURING THAT PASS. THE TRACKING SHIP MERCURY WILL ACQUIRE
AT 104 HOURS 18 MINUTES. THIS IS MISSION CONTROL, HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 1041805 (CDT 6:20P) 344/1

PAO THIS IS APOLLO CONTROL 104 HOURS 18 MINUTES AND THE MERCURY HAS ACQUIRED APOLLO 7.

CAPCOM APOLLO 7, HOUSTON. APOLLO 7, HOUSTON. MERCURY M AND O, HOUSTON CAPCOM, ARE WE GETTING OUT TO YOU? APOLLO 7, HOUSTON. APOLLO 7, HOUSTON. TRANSMITTING IN THE BLIND. FLIGHT PLAN UPDATE AT 106 PLUS ZERO ZERO 02 FUEL CELL PURGE. APOLLO 7, HOUSTON. APOLLO 7, HOUSTON. LOS MER- HAWAII AT 36.

PAO THIS IS APOLLO CONTROL 104 HOURS 25 MINUTES. MERCURY HAS LOS NOW. WE WERE UNABLE TO ESTABLISH VOICE CONTACT WITH THE APOLLO 7 THROUGH THIS PASS. HOWEVER, WE WERE GETTING GOOD TELEMETRY AND IT SHOWS THAT THE SPACE-CRAFT LOOKS GOOD ACCORDING TO THE FLIGHT CONTROLLERS HERE IN CONTROL CENTER. HAWAII WILL ACQUIRE AT 104 HOURS 36 MINUTES. THIS IS MISSION CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY 10/15/68, GET: 1043600 (CDT 6:40P)345/1

PAO THIS IS APOLLO CONTROL AT 104 HOURS, 36
MINUTES AND HAWAII IS ACQUIRING APOLLO 7.

CAPCOM APOLLO 7 HOUSTON THROUGH HAWAII.
APOLLO 7 HOUSTON THROUGH HAWAII. APOLLO 7 HOUSTON. APOLLO
7 HOUSTON. APOLLO 7 HOUSTON.

SC THIS IS APOLLO 7, DO YOU READ ME?

CAPCOM ROG, READ YOU LOUD AND CLEAR NOW.

SC OKAY, HAVE YOU TRIED TO CONTACT THE

MERCURY?

CAPCOM AFFIRMATIVE.

SC SORRY ABOUT THAT, I DIDN'T GET BACK IN
TO THE RIGHT CONFIGURATION AFTER THAT REEL CHECK.

CAPCOM YEAH, WE WERE SWITCHING AROUND THERE AND
WERE GOING TO TRY THAT IN THE AIR TO HAWAII IF WE DIDN'T
CATCH YOU. OKAY, WALLY, I'VE GOT A LOG DATA FOR YOU AND
ALSO WOULD LIKE SOME ONBOARD READOUTS. APOLLO 7 HOUSTON, DO
YOU READ? APOLLO 7 HOUSTON. APOLLO 7 HOUSTON. APOLLO 7
HOUSTON. APOLLO 7 HOUSTON. APOLLO 7 HOUSTON, WE'LL PICK
YOU UP IN THE MERCURY AT 104, BELAY THAT, AT 105, 52.

PAO THIS IS APOLLO CONTROL, 104 HOURS, 42
MINUTES. HAWAII HAS LOS NOW. WE DIDN'T HAVE TOO MUCH COM-
MUNICATION THERE, APPARENTLY FOR A WHILE THE SPACECRAFT WAS
STILL IN THAT RELAY TEST CONFIGURATION. WE TALKED TO THEM
BRIEFLY BUT THEN WE HAD SOME LAND LINE PROBLEMS IN THE COM-
MUNICATIONS NETWORK. APOLLO 7 NOW STARTS A LONG SWEEP WHERE
IT WILL BE OUT OF VOICE CONTACT. THE NEXT STATION TO ACQUIRE
THAT'S CAPABLE OF VOICE IS THE TRACKING SHIP MERCURY AT 105
HOURS, 52 MINUTES. THIS IS MISSION CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 1053000 (CDT 7:30P) 347/1

PAO THIS IS APOLLO CONTROL AT 105 HOURS
30 MINUTES, APOLLO 7 IS OVER AFRICA ON ITS 67 REVOLUTION.
WE'VE JUST ENDED THE PERIOD SET ASIDE IN THE FLIGHT PLAN FOR
THE COMMANDER AND THE LUNAR MODULE PILOT TO EAT AND THE
COMMAND MODULE PILOT IS STILL IN HIS SLEEP PERIOD. WE'VE
BEEN OUT OF VOICE CONTACT WITH APOLLO 7 SINCE THE HAWAII
STATION. WE'LL ACQUIRE AT MERCURY AT 105 HOURS 52 MINUTES.
THIS IS MISSION CONTROL, HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 1055130 (CDT 7:55P)348/1

PAO THIS IS APOLLO CONTROL, 105 HOURS AND
51 MINUTES, APOLLO 7 COMING UP ON THE MERCURY NOW. WE'LL
LISTEN TO THIS PASS.

CAPCOM APOLLO 7 HOUSTON THROUGH MERCURY.
SC ROGER, LOUD AND CLEAR
CAPCOM ROGER, THE SAME, WALT
SC WE'RE GOING TO TAKE THE BLOCK DATA THIS

PASS?

CAPCOM ROGER, BLOCK DATA TO FOLLOW. ZERO 69
DASH THREE CHARLIE, PLUS 190, PLUS 1300, 108 PLUS 47 PLUS
28, 2888, 070 DASH ALPHA CHARLIE PLUS 043 MINUS 0230, 109
PLUS 37, PLUS 434082. ZERO 71 DASH ALPHA CHARLIE, PLUS 128
MINUS 0320111 PLUS 10, PLUS 333808, 072 DASH TWO ALPHA PLUS
255 MINUS 0270112 PLUS 48 PLUS 123484, 073 DASH ONE BRAVO
PLUS 210 MINUS 0615114 PLUS 13 PLUS 043590, 074 DASH ONE
BRAVO PLUS 279 MINUS 0645115 PLUS 48 PLUS 123455, HOUSTON
OVER.

SC ROGER, I READ THAT. CAN YOU GET SOMEONE
TO CHECK OUR MAIN 02 RATES?

CAPCOM ROGER, WE'RE STANDING BY.

SC OKAY, ROGER, THIS (GARBLED) 69, 0693
CHARLIE PLUS 190 PLUS 13001084728, 1888070 PLUS CHARLIE PLUS
043 MINUS 230, 1093743, 4082071 ALPHA CHARLIE PLUS 128 MINUS
0320111 PLUS 10 PLUS 333808, 0722 ALPHA PLUS 255 MINUS 0270
11248123484, 0721 BRAVO PLUS 210 MINUS 0615, 11413043590
0741 BRAVO PLUS 279 MINUS 06451154812 (STATIC)

CAPCOM APOLLO 7 HOUSTON, YOUR READ BACK IS
CORRECT, CORRECT PRESSURE NOW IS 104.

SC ROGER, I'LL SWITCH RINGS AND GIVE
ANOTHER ONE.

CAPCOM 103

SC 103, WE ARE GO ON ECS READOUT AND WE'VE
JUST CHANGED OUR CANNISTER NOW.

CAPCOM ROGER, AND FLIGHT PLAN UPDATE LOCK AND
FUEL CELL 02 PURGE AT 106 PLUS 00.

SC ROGER, ARE WE COMING UP LOS?

CAPCOM ROGER, ABOUT ONE MINUTE TO LOS. I CAN
GIVE YOU A FIGURE 3 DASH 1 ON YOUR RCS UPDATE, IF YOU WANT.

SC GO AHEAD

CAPCOM ROGER, AT 104 HOURS YOU HAVE A TOTAL OF
715, YOUR SCS RED LINE IS 583 YOUR DAMP RED LINE 520, HYBRID RED
LINE 247 AND THOSE ARE POINTS TO PLOT ON YOUR CURVE.

SC VERY GOOD (GARBLED)

CAPCOM YEAH, IT'S LOOKING GOOD. BE ADVISED
THAT QUAD A, AS FAR AS THE QUAD RED LINE, IS JUST RIGHT ON
THE SCS RED LINE, ALL OTHERS ARE IN GOOD SHAPE.

SC ROG, WHAT HAPPENED TO YOUR TRANSITION OF
WATER? DID YOU BREAK UP ON THE LAND LINE?

APOLLO 7 COMMENTARY, 10/15/68, GET: 1055130 (CDT 7:55P)348/2

CAPCOM AFFIRMATIVE. BROKE UP ON THE LAND LINE.
SC OKAY, STANDING BY FOR REDSTONE.
PAO THIS IS APOLLO CONTROL AT 105 HOURS, 58
MINUTES. MERCURY HAS LOS NOW. WE UPDATED THE CREW ON THIS
PASS WITH WHAT THEY CALL THE BLOCK UP DATE. THAT'S REENTRY
INFORMATION THE FLIGHT CREW WOULD NEED IF IT SHOULD HAVE TO
REENTER DURING THE NEXT FEW REVOLUTIONS WHEN IT'S ESSEN-
TIALY OFF THE TRACKING RANGE. WE GAVE THEM THE INFORMATION
THROUGH REV 74. WE ALSO GAVE THEM A REPORT ON THEIR TOTAL
RCS PROPELLANT HAS 715 POUNDS REMAINING AND THAT GIVES US
PLENTY OF CAPABILITY FOR THE BACKUP MODES OF DEORBIT USING
THE RCS SYSTEM INSTEAD OF THE SERVICE PROPULSION SYSTEM IF
THAT SHOULD BE NECESSARY. WALLY SCHIRRA REPORTED THAT THEY
HAD JUST COMPLETED CHANGING THE LITHIUM HYDROXIDE CANNISTER
THERE ARE TWO OF THESE CANNISTERS IN THE SYSTEM, ONE IS
CHANGED EVERY 12 HOURS, THE LITHIUM HYDROXIDE REMOVES THE
CARBON DIOXIDE FROM THE ATMOSPHERE. APOLLO 7 WILL MISS THE
GUAM STATION THIS TIME ALSO THE HAWAII STATION. THE NEXT
STATION TO ACQUIRE IS THE TRACKING SHIP REDSTONE IN THE
SOUTH PACIFIC, ACQUISITION THERE AT 106 HOURS, 24 MINUTES.
THIS IS MISSION CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 1062400 (CDT 8:25 PM) 349/1

PAO APOLLO CONTROL AT 106 HOURS 24 MINUTES.
AS APOLLO 7 COMES WITHIN RANGE OF THE REDSTONE TRACKING SHIP,
DONN EISELE SHOULD BE AWAKE AND PERHAPS EATING BREAKFAST.
WALLY SCHIRRA AND WALT CUNNINGHAM SHOULD BE BEGINNING THEIR
SLEEPING PERIOD. WE'LL STAND BY THROUGH THIS PASS.

CAPCOM APOLLO 7, HOUSTON THROUGH REDSTONE.
SC ROGER, HOUSTON, FIVE BY FIVE.
CAPCOM ROG. (GARBLE) WALT, I HAVE SOME ONBOARD
READOUTS I'D LIKE TO GET.
SC GO AHEAD.
CAPCOM ROGER. SPS FUEL AND OXIDIZER QUANTITY
AND THE OXIDIZER UNBALANCED, IF ANY.
SC OUR (GARBLE) IS NOT WORKING I WAS TOLD
SO I HAVEN'T PAID ANY ATTENTION TO IT, BUT I SHOW THE OXIDIZER
UNBALANCED READING OF MINUS 300 OR DECREASED 300 AND IT KINDA
JUMPS AROUND DURING DURING A BURN, AND I DON'T THINK IT MEANS
ANYTHING AT ALL. THE SPS QUANTITY IS REMAINING 17.15 PERCENT
OXIDIZER, 18.2 PERCENT FUEL. OVER.
CAPCOM ROGER, COPY, AND YOUR SERVICE MODULE
RCS PROPELLANT QUANTITY.
CAPCOM AND YOUR BAT C VOLTS, WHILE YOU'RE OVER
THERE.
SC (GARBLE)
CAPCOM I MISSED IT. SAY IT AGAIN.
SC OKAY, THE (GARBLE) GAGE IS ABOUT 51 PER-
CENT.
CAPCOM ROGER.
SC BAT C, 56 PERCENT.
CAPCOM ROGER.
SC BAT D, 62 PERCENT.
CAPCOM ROGER.
SC (GARBLE) WE DON'T COUNT.
CAPCOM STILL CLEAR.
CAPCOM YOUR BAT C VOLTS AND YOUR SYSTEMS TEST
METERS 5 AND 6A THROUGH D, WHEN YOU GET A CHANCE.
SC ROGER. BAT BUS A IS READING 36 VOLTS;
BAT BUS B IS READING 36.2 VOLTS; 5C IS 5 VOLTS; 5D IS 5 VOLTS
6D IS 5 VOLTS; 6C IS 5 VOLTS; 6B IS 5 VOLTS; 6A IS 5 VOLTS.
CAPCOM ROGER, COPY. ALL SYSTEMS TESTS ARE
5 VOLTS, AND BAT C WE STILL NEED.
SC OKAY, BAT C COMING. BAT C SHOWS 36.3
VOLTS AND OUR PRESENT PLANS ARE NOT TO HEAT THE COMMAND MOD-
ULE RCS IN OUR DEORBIT.
CAPCOM WE CONCUR, SO FAR.
SC ANY LATE BREAKING NEWS IN HOUSTON, RON?
CAPCOM SAY IT AGAIN.
SC WHAT'S THE LATEST NEWS IN HOUSTON?
CAPCOM I HAVE LIMA SIERRA FOR YOU.
SC WELL, GO AHEAD (GARBLE)

APOLLO 7 COMMENTARY, 10/15/68, GET: 1062400 (CDT 8:25 PM) 349/2

CAPCOM ROGER. LIMA SIERRA, 072/061, AND I HAVE
A SIERRA FOX TROT AT 075.
SC SIERRA FOX AT 075, (GARBLE) LIMA SIERRA
072/061.

CAPCOM ROGER.
SC 6572/65.
CAPCOM APOLLO 7 - APOLLO 7, HOUSTON, REQUEST
A CYCLE 02 FAN FOR 5 MINUTES IN AUTO
SC OKAY. RON, WE'VE BEEN READING EVERY ONE
IN AUTO, IS THAT YOURS TOO, RON?

CAPCOM WE STARTED OUT THE OTHER WAY AND THEN
DONN HAD IT THE OTHER WAY,
SC IT'S IN AUTO AND THE OTHER ONE IS CYCLED
ON YOUR CALLOUTS, RIGHT?

CAPCOM THAT'S AFFIRMATIVE, SO YOU HAVE TANK 1
IN AUTO AND TANK 2 FANS CYCLING NOW.

SC (GARBLE) 5 MINUTES.

SC PURGE ON TIME.

CAPCOM APOLLO 7 HOUSTON (GARBLE)

CAPCOM 7, HOUSTON. WE HAVE 1 MINUTES TO LOS.
OUR 02 IS ABOUT 63 POUNDS ABOVE THE NOMINAL FLIGHT PLAN AT
THIS TIME AND THE H2 IS ABOUT A HALF POUND ABOVE THE NOMINAL
FLIGHT PLAN. SO WE'RE IN GOOD SHAPE.

SC VERY GOOD.

PAO THIS APOLLO CONTROL AT 106 HOURS 31 MIN-
UTES. THE REDSTONE HAS LOS NOW. OBVIOUSLY, THE COMMANDER
AND THE LUNAR MODULE PILOT HAVE NOT SETTLED DOWN FOR THE NIGHT
YET, EVEN THOUGH THEIR SLEEP PERIOD STARTED AT 106 HOURS ON
THE FLIGHT PLAN. THE MAJORITY OF THIS PASS WAS DEVOTED TO
UPDATING AND TO GETTING ONBOARD READOUTS OF VARIOUS SYSTEMS
INCLUDING THE SPS PROPELLANT QUANTITIES, THE SERVICE MODULE
RCS PROPELLANT QUANTITIES AND BATTERY VOLTAGE READINGS. NEXT
STATION TO ACQUIRE WILL BE ASCENSION. AT 106 HOURS 50 MINUTES,
THIS IS MISSION CONTROL, HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 1065010 (CDT 8:55P) 350/1

PAO THIS IS APOLLO CONTROL AT 106 HOURS
50 MINUTES, APOLLO 7 IS APPROACHING RANGE AT ASCENSION NOW,
WE'LL STAND BY THERE.

CAPCOM APOLLO 7, HOUSTON, ASCENSION STANDING
BY.

SC ROGER, THANK YOU EVANS ANY MORE LOCAL
NEWS OR ANY REPORTS.

CAPCOM ROGER, I CAN GIVE YOU, JUST LIKE THE
END OF THE MISSION NOW, PREDICTED THE WORD I HAVE, 25 PER-
CENT O2 UP, AND ABOUT 6.8 PERCENT H2 UP.

SC ROGER, I UNDERSTAND, THAT SOUNDS GOOD.
IT ABOUT WHAT I PREDICTED ON EARLIER (GARBLE) ISN'T IT.

CAPCOM I THINK SO. ON THE FUEL CELLS PERFORM-
ANCE IS RIGHT DOWN THE MIDDLE, PURGING IS TURNING OUT
NOMINAL, LOOKS LIKE WE'LL PLAN TO PURGE O2 IMMEDIATELY PRIOR
TO THE SPS BURN AND THIS SHOULD IMPROVE THE LOW CHARGING
CHARACTERISTICS BETWEEN THE FUEL CELL AND THE BATTERY.

SC ROGER, I UNDERSTAND AND IS THE SPS THE LEFT
BURN NOMINALLY WHAT IT IS IN THE FLIGHT PLAN.

CAPCOM THE SPS BURNS ARE STILL PER FLIGHT
PLANS, YES.

SC ROGER, THANK YOU. DID THEY TELL YOU THE
PURGING WATER CARRIAGE AT SPS BURN, TOO.

CAPCOM SAY AGAIN, WALLY.

SC I DON'T KNOW WHETHER YOU GOT THE REPORT
OR NOT BUT THERE'S VAST WATER COLLECTING ALL OVER THE
PLUMBING ON THE ECS, AND IT FORMS RATHER LARGE BLOBS THAT
WE'RE GOING TO HAVE TO TAKE OFF BEFORE GETTING A BURN GOING AGAIN.
THAT'S IT, APOLLO.

CAPCOM ROGER, I UNDERSTAND YOU WANT TO COLLECT
ALL THE WATER AT ONE PLACE.

SC YEAH, THAT ON THE AFT BULKHEAD.

SC BURN CHECK LIST. DID YOU GET TO SEE
THE TV PICTURE WHERE THE WALL-TO-WALL (GARBLE) IS KIND OF SHARP TODAY.

CAPCOM YES, WE DID, IT CAME THROUGH REAL GOOD.

SC YES, HOW HAS THAT ON BOARD TV BEEN
SHOWING UP COULD YOU DETECT OUR MOTION OR ARE WE MOVING TOO
FAST OR WHAT?

CAPCOM NO I'S REAL GOOD IF YOU HAVE A REAL
FAST MOVEMENT, YOU GET A LITTLE BIT OF A BLUR, BUT JUST IN
THE FLOATING MOVEMENTS IT TURNS OUT REAL - REAL FINE, IT'S
AMAZING, IT'S MUCH BETTER THAN ANY THING I'VE EVER SEEN IN
GROUND TESTING.

SC THAT'S GOOD. IS THIS BEING TAPED DURING THE
(GARBLE) PREPARED AS SO WE CAN SEE IT.

CAPCOM YEA, IT'S TAPED.

SC YEA, OKAY.

APOLLO 7 COMMENTARY, 10/15/68, GET: 106510 (CDT 8:55P) 350/2

SC DONN SAID HE (GARBLE), BUT SIX YEARS AGO
HE GOT TO ME THAT WAY.

CAPCOM MISSED THAT WALLY.

SC SIX YEARS AGO HE ASKED ME THAT QUESTION,
ONLY I HAD A TAPE ON BOARD AND I WAS ABOUT THREE MINUTES OUT
ON AN ATLAS.

CAPCOM OKAY.

SC YOU STILL THERE, RON.

CAPCOM AFFIRM.

SC WHAT'S THE STATUS OF OUR TAPE RECORDER,
HAVE YOU DUMPED IT RECENTLY.

CAPCOM ROGER, THE LAST TWO PASSES WE HAD OVER
THE MERCURY IT WASN'T QUITE AS GOOD, WE'RE CHECKING IT OUT
AT REDSTONE NOW IT WAS GOOD UP UNTIL THAT TIME.

SC ROGER, HOW ABOUT A CHART UPDATE IF YOU
HAVE TIME.

CAPCOM ROGER. PUT YOUR TAPE RECORDER FORWARD
SWITCH IN FORWARD.

SC IT IS.

CAPCOM ROGER, AND HERE'S YOUR FLIGHT PLAN
UPDATE.

SC GO AHEAD.

CAPCOM REV 68, GET IS NODE 107 PLUS 01 PLUS
55 LONGITUDE 15.9 EAST RIGHT ASCENSION 04 PLUS 47.

PAO WE HAVE LOS AT ASCENSION, DON'T KNOW
WHETHER ALL THAT LAST UPDATE GOT UP THERE OR NOT. DURING
THIS PASS WE INFORMED THE CREW OF THE PREDICTIONS THAT
AT THE END OF THE MISSION WE'LL HAVE 25 PERCENT OF THE
OXYGEN LEFT 6.8 PERCENT OF THE HYDROGEN REMAINING. WE
ALSO TOLD THEM THAT THE FUEL CELLS WERE PERFORMING WELL.
THERE WAS A DISCUSSION OF THE WATER CONDENSATION ON THE
ENVIRONMENTAL CONTROL SYSTEM PLUMBING, THE CREW POINTED
THIS OUT DURING THE TELEVISION TRANSMISSION THIS MORNING,
AND THERE WAS CONSIDERABLE DISCUSSION OF THE QUALITY OF THE
TV AND THE CREW SEEMED TO WANT CONFIRMATION THAT IT WAS
BEING TAPED ON THE GROUND. THEY OBVIOUSLY WANT TO TAKE
A LOOK AT IT WHEN THEY GET BACK. NEXT STATION TO ACQUIRE
WILL BE THE MERCURY AT 107 HOURS 26 MINUTES. THIS IS
MISSION CONTROL, HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 1072630 (CDT: 9:30P) 351/1

PAO THIS IS APOLLO CONTROL AT 107 HOURS
26 MINUTES, AND THE TRACKING SHIP MERCURY IS ABOUT TO ACQUIRE
APOLLO 7.

CAPCOM APOLLO 7, HOUSTON. APOLLO 7, HOUSTON
THROUGH MERCURY.

SC GOT YOU HOUSTON, LOUD AND CLEAR.

CAPCOM ROGER, I HAVE BATTERY STATUS IF YOU'RE
READY TO COPY. APOLLO 7, HOUSTON, OUTPUT ON ME.

SC GO AHEAD WITH THE STATUS.

CAPCOM ROGER, YOU PRESENTLY HAVE THREE IN
A 32.7, IN B 30.2, IN C 39.5 AMBER HOURS.

SC ROGER.

CAPCOM FOR PREDEORBIT, YOU WILL HAVE AN
A 24.8, AND B 22.2, AND C 39.5 FOR TOTAL OF 86.5 AMBER HOURS.

SC ROGER.

CAPCOM PREDICTED POST FINDING TIME WILL BE
35 HOURS.

SC ROGER, UNDERSTAND RON. THE ONLY THING

WE HAVE ON BATTERY CHARGE IS SUPPORTING THE BATTERIES TILL
YOUR ON A HYDRA DEORBIT.

CAPCOM ROG, WE CONCUR. YOU MIGHT BE INTERESTED

IT'S BELIEVED THAT WE'VE HAD A SLIGHT CHANGE IN THE BATTERY
CHARGER CHARACTERISTICS. AS A FUNCTION OF ALTITUDE SETS UP
THE CHARGING VOLTAGE THAT THE BATTERY TERMINALS IS ABOUT
2 TO 3 TENTHS VOLTS LOWER THAN NORMAL, AND THIS WOULD ACCOUNT
FOR THE DECREASED CHARGING CURRENT. WE'RE CONTINUING GROUND
TESTING TO BETTER DEFINE THIS ANOMALY.

SC I THOUGHT THIS WAS DONE SUBSEQUENT TO

OUR LIFT-OFF.

CAPCOM SAY AGAIN, WALLY.

SC YOU SAY THIS WAS DONE AFTER WE TOOK

OFF, RON.

CACOM THAT'S AFFIRMATIVE.

SC YEH, IT'S GOOD WORK TO FIND IT OUT.

CAPCOM YEH, RIGHT. NO ADDITIONAL BATTERY CHARGE
IS ANTICIPATED AT THIS TIME. WE RECOMMEND MINIMIZING BATTERY
ON TIME FOR ALL BURNS.

SC THAT'S KIND OF HARD TO DO, BUT WE'LL DO
IT.

CAPCOM ROGER.

SC (GARBLED) WE'RE GOING TO WAKE UP AND

GET DOWN ON WATCH SHORTLY. HE'LL BE WITH YOU ON NEXT GO.

CAPCOM ROGER, UNDERSTAND. HAVE A GOOD NIGHT'S

SLEEP.

SC GOOD-NIGHT. RON, DID YOU HAVE PF-5

SYSTEM POWER UP. WE HAD IT RENDERED HERE ON THE FLIGHT PLAN

APOLLO 7 COMMENTARY, 10/15/68, GET: 1072630 (CDT: 9:30P) 351/2

HERE. AT ABOUT 107, 20.

CAPCOM ROGER, IT'S IN THERE. WE'RE CHECKING
ON IT RIGHT NOW.

SC CAN YOU HOLD OFF ON IT A LITTLE YET.
IF YOU DO, YOU GET IT ON DONN EISELE AT THE NEXT REDSTONE.

CAPCOM ROGER, THERE'S NO PROBLEM THERE. IT'S
JUST TO RUN THE STATE VECTOR UP.

SC YEH. I GUESS I'D LIKE TO PUT THE IRON
ON THE FIRE OF THAT BATTERY CHARGE STATUS.

CAPCOM AFFIRMATIVE, WE'RE STILL WORKING ON IT.

SC OKAY.

CAPCOM WALT, WE'VE GOT THE 101 BACKUP BATTERIES
IN DOWNEY, AND WE'RE RUNNING TESTS ON THOSE TONIGHT.

SC ALRIGHT.

CAPCOM APOLLO 7, HOUSTON, OPPOSITE OMNI.

SC HOLD OFF. YEH, RON TOMORROW MAYBE YOU
CAN ADD A BAKER-TARE UPDATE TO THAT.

CAPCOM BAKER-TARE?

SC THAT'S THE OTHER ONE I MENTIONED TO YOU.

PLUS YOU GAVE ME THAT FOR THE LIMA SIERRA.

CAPCOM THAT IS AFTER THE SLANT.

SC OH. OH, RON HOW ABOUT THE LONGITUDE

ON THAT CHART UPDATE, WE MISSED IT.

CAPCOM ROGER, JUST A SECOND.

CAPCOM ROG, REV 68.

SC ROGER, GO. I MEAN - 107, 128255, WHAT'S
LONGITUDE.

CAPCOM ROGER, LONGITUDE 15.9 EAST. RIGHT
ASCENSION 04 PLUS 47.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 1073838 (CDT 9:49P) 352/1

CAPCOM RIGHT, ASCENSION 04 PLUS 47.
SC ASCENSION 1070255 IS THE TIME, RIGHT?
CAPCOM THAT'S ROGER, AND REQUEST BAT C READOUT,
AGAIN. MISSED IT THE LAST TIME.

SC BAT C IS 36.1 OR 2.

CAPCOM ROGER 36.4.

SC 36.2.

CAPCOM 36.2, ROGER.

PAO THIS IS APOLLO CONTROL AT 107 HOURS
38 MINUTES. DURING THIS PASS, WE GOT A RUNDOWN ON THE
BATTERY POWER. AS YOU HEARD, WE DO NOT ANTICIPATE HAVING
TO CHARGE THE BATTERIES AGAIN. THERE IS PLENTY OF POWER
THROUGH THE REMAINDER OF THE MISSION, PLUS THE CAPABILITY
FOR 35 HOURS POST-LANDING. THE BATTERY CHARGER APPARENTLY
IS NOT CHARGING QUITE UP TO SPECIFICATION. IT IS BELIEVED
THIS MAY BE THE CHANGE IN CHARACTERISTICS BECAUSE OF ALTITUDE,
AND A TEST TO TRY TO RESOLVE THIS PROBLEM WILL BE RUN TONIGHT
AT THE NORTH AMERICAN ROCKWELL PLANT IN DOWNEY, CALIFORNIA.
THE NEXT STATION TO ACQUIRE IS THE TRACKING SHIP REDSTONE.
AT 107 HOURS 57 MINUTES, THIS IS MISSION CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 1075750 (CDT 10:00)353/1

PAO APOLLO CONTROL AT 107 HOURS, 57 MINUTES
AND THE REDSTONE HAS JUST ACQUIRED APOLLO 7. THERE IS NO
ACTIVITY SCHEDULED IN THE FLIGHT PLAN AT THIS TIME. WE HAVE
INDICATIONS THAT THE PASS AT GUAM THAT THE - THAT WALLY
SCHIRRA AND WALT CUNNINGHAM WERE GOING TO SLEEP. WE'LL
STAND BY THROUGH THIS PASS.

CAPCOM APOLLO 7 HOUSTON THROUGH REDSTONE.
APOLLO 7 HOUSTON. APOLLO 7 HOUSTON.

SC HELLO HOUSTON, APOLLO 7, I'M READING
YOU.

CAPCOM ROG. GOOD MORNING.

SC HELLO, HOW ARE YOU?

CAPCOM NOW GETTING ALONG IN GOOD SHAPE. DONN,
ON THIS BEGIN I THINK THAT WALT GAVE ME THAT BRAVO INSTEAD
CHARLIE VOLTAGE LAST TIME, REQUEST BATT CHARLIE VOLTAGE.

SC OKAY, STAND BY ONE MINUTE.

CAPCOM WILL, GO. OKAY, I WONDER HOW MUCH IT
WOULD FOUL THEM UP IF THEY DELAYED EATING UNTIL THEY WERE ON
TV

SC RON, I READ BATT C AS 36 VOLTS.

CAPCOM ROG, I UNDERSTAND BATT CHARLIE 36 VOLT.

SC I THINK THAT'S DOWN A LITTLE, I BELIEVE

ITS ABOUT 37 SINCE WE GOT UP HERE.

CAPCOM WE CONCUR. APOLLO 7 HOUSTON ONE MINUTE
LOS ASCENSION AT 23

SC ROGER, ASCENSION AT 23 UNDERSTAND.

PAO THIS IS APOLLO CONTROL AT 108 HOURS, 6
MINUTES. REDSTONE HAS LOS. ALL OF THE TRANSMISSIONS THAT
TIME WERE BY COMMAND MODULE PILOT, DONN EISELE, INDICATING
THAT WALLY SCHIRRA AND WALT CUNNINGHAM HAVE SETTLED DOWN FOR
THE NIGHT. APOLLO 7 IS ABOUT TO ENTER ITS 68 REVOLUTION.
THE NEXT STATION TO ACQUIRE WILL BE ASCENSION AT 108 HOURS,
23 MINUTES. THIS IS MISSION CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 1082330 (CDT 10:25P) 354/1

PAO THIS IS APOLLO CONTROL 108 HOURS 23
MINUTES INTO THE MISSION. ASCENSION HAS JUST ACQUIRED
APOLLO 7. WE HAVEN'T PUT IN A CALL YET, BUT WE'LL STAND
BY TO MONITOR THIS PASS.
CAPCOM APOLLO 7, HOUSTON, ASCENSION STANDING
BY.
SC DO YOU READ, HOUSTON.
CAPCOM ROGER, LOUD AND CLEAR.
SC GARBLE.
CAPCOM I MISSED THAT DONN, SAY AGAIN.
SC ROGER, 15 CLICKS OF THE WATER GONE.
CAPCOM ROGER, GOT IT.
SC OKAY. I JUST HAD A GOOD, SOLID 8 HOURS
SLEEP AND I FEEL PRETTY GOOD. I'VE GOT A PHYSICAL HEAD
COLD, BUT OTHER THAN THAT EVERY THINGS GOING FINE.
CAPCOM OKAY, SOUNDS GOOD THEN.
SC MY ONLY CONCERN RIGHT NOW IS WHATS GOING
TO HAPPEN TO MY EARS WHEN WE REENTRY, BUT I HOPE BY THEN
I'LL GET OVER IT.
CAPCOM WE KIND OF FEEL THAT YOU WILL AND WE
HOPE ANYHOW.
SC I GUESS WE'LL CROSS THAT WHEN WE COME
TO IT.
CAPCOM ROG.
CAPCOM APOLLO 7, HOUSTON.
SC GO.
CAPCOM ROG, WE'VE HAD A LITTLE CONCERN ABOUT
THE VOICE QUALITY ON THE DSE THERE THE LAST COUPLE OF DUMPS
AND WHAT WE WOULD LIKE YOU TO DO IS AFTER THIS PASS GO
AHEAD AND TALK INTO THE TAPE RECORDER, MENTION THE TIME
ON IT AND THEN GIVE US A TIME AT THE NEXT STATION AREA AND
WE CAN PLAY IT BACK AND CHECK IT OUT THAT WAY REAL GOOD.
SC ROGER, YOU SAY YOU WANT ME TO RECORD
SOMETHING ON THE TAPE AND READ THE TIME ON TO IT SO YOU
CAN CHECK IT NEXT PASS, IS THAT RIGHT?
CAPCOM AFFIRMATIVE, AND THEN GIVE US A TIME
THAT YOU WERE TALKING INTO IT.
SC OKAY WILL DO. RON, I'VE GOT SOME
RESULTS OF A SEXTANT STAR COUNT WE NEEDED ABOUT 98 HOURS.
CAPCOM ROGER, READY TO COPY.
SC OKAY, AT SUNRISE - FIRST OF ALL THE
MOON WAS IN THE FIELD OF VIEW AND THATS TENDS TO WIPE OUT
A LOT OF STARS, BUT AT SUNRISE I COUNTED 12 STARS AT
PLUS 4 TWO STARS PLUS 8 ONE STAR AND PLUS 12 THREE STARS.
CAPCOM ROGER, I COPY.
SC THEN THEY ALL WENT AWAY, EXCEPT A
COUPLE OF BRIGHT ONES RIGHT AFTER SUNRISE, AT SUNSET MINUS
12 4 MINUS 8 15 MINUS 4 30 AND AT SUNSET I SAW 40 OR MORE.

APOLLO 7 COMMENTARY, 10/15/68, GET: 1082330 (CDT 10:25P) 354/2

SC OF COURSE, THIS WAS AT THE OTHER
ATTITUDE WHEN THE MOON WAS NOT IN THE FIELD OF VIEW. I
COULD SEE THE CONSTELLATION SAGITTARIUS VERY PLAINLY AND
ALL THE OTHER MAJOR STARS IN THE TELESCOPE AT THAT TIME.

CAPCOM ROGER.

SC I RECOMMEND THAT WE KNOCK OFF THE
REMAINING STAR COUNT ON THE BASIS THAT WE DON'T NEED -
REALLY NEED WINDOW SHADES UP TO GET DARK ADAPTED BECAUSE
EVEN IF YOU ARE DARK ADAPTED IF YOU LOOK IN A TELESCOPE
INFILTERED WITH LIGHT, IT RUINS IT ANYWAY, AND THE BEST
WAY TO GET DARK ADAPTED IS TO PUT YOUR EYEBALL UP THERE AND
LEAVE IT THERE FOR SEVERAL MINUTES.

CAPCOM OKAY, I SEE, SO THE WINDOW SHADES ARE
NOT DOING YOU ANY GOOD, IS WHAT YOU'RE SAYING THERE, RIGHT?

SC I THINK SO, YEA, I DON'T THINK THE
WINDOW SHADES WOULD HELP THAT MUCH.

CAPCOM OKAY.

SC IT'S NOT THE SUNLIGHT COMING IN THE
WINDOWS THAT KEEPS YOU FROM GETTING DARK ADAPTED ANYWAY.

CAPCOM ROGER.

SC I HAD ROUGHFULLY THE SAME SORT OF LIGHT
PATTERN IN THE TELESCOPE THAT I HAD ON THE EARLIER TEST,
THERE WAS A BRIGHT RING AROUND THE EDGE OF IT AND A BROAD
BAND ACROSS THE MIDDLE OF IT, AND THIS LIGHT PATTERN DIDN'T
DISAPPEAR (GARBLE).

CAPCOM ALL RIGHT.

SC IN FACT ON THAT SECOND CHECK COME TO
THINK OF IT THERE WASN'T ANY BAND ACROSS THE MIDDLE, IT
WAS PRETTY CLEAN SCOPE AND I THINK IT HAD TO DO JUST WITH
THE RESPECT TO THE EARTH, HOW CLOSE IT IS AND THE DIRECTION
YOUR LOOKING.

CAPCOM I UNDERSTAND.

CAPCOM DONN.

SC YEA.

CAPCOM WE NEVER GOT THE SUNSET - THE SUNSET
PART OF THAT FIRST STAR COUNT THING THERE, IF IT'S CONVENIENT
IN YOUR LOG, WE'LL TAKE THAT.

SC ROGER, I UNDERSTAND YOU DID NOT GET THE
DATA ON THE FIRST ONE.

CAPCOM WE GOT THE SUNRISE PART OF IT, BUT NOT
THE SUNSET PART OF IT.

SC ROGER, AT SUNSET WE HAD THINNING GOING
ON AND IT WIPED IT OUT COMPLETELY.

CAPCOM OH, I SEE, OKAY.

SC THERE ARE SO MANY FIREFLYS, SNOW FLAKES
OUT THERE I COULDN'T SEE - TELL THE STARS FROM THE FLAKES.

CAPCOM I UNDERSTAND.

CAPCOM 30 SECONDS LOS, WE'LL PICK YOU UP AT

APOLLO 7 COMMENTARY, 10/15/68, GET: 1082330 (CDT 10:25P) 354/3

CAPCOM

MERCURY ON THE HOUR.

SC

OKAY.

PAO

THIS IS APOLLO CONTROL AT 108 HOURS,
32 MINUTES, VERY GOOD VOICE QUALITY THAT TIME. APOLLO 7
SPLIT THE RING OF ACQUISITION ON ASCENSION PASS ALMOST
DIRECTLY OVERHEAD AT ASCENSION. DON EISELE GAVE A VERY
GOOD REPORT ON THE DAYLIGHT START COUNT, REPORTED THAT HE
GOT A SOLID 8 HOURS SLEEP AND THAT DESPITE THE HEAD COLD,
HE FEELS PRETTY GOOD. THE NEXT STATION TO ACQUIRE WILL BE
THE TRACKING SHIP MERCURY AT 109 HOURS. THIS IS MISSION
CONTROL, HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 1090040 (CDT 11:00P) 355/1

PAO THIS IS APOLLO CONTROL. WE ARE NOW
109 HOURS INTO THE MISSION. THE SPACECRAFT HAS JUST BEEN
ACQUIRED OVER THE TRACKING SHIP MERCURY AND THE CAP COM IS
PUTTING IN A CALL TO THE CREW.

SC (CUT OFF)

CAPCOM ROGER, LOUD AND CLEAR.

SC WELL I PUT A SHORT TEST RECORDING ON
THE TAPE ABOUT, WELL IT WAS 108:44.

CAP COM ROGER, COPY.

SC THAT'S GIVE OR TAKE A FEW SECONDS.
I THINK IT WAS 108:33:40 ACTUALLY.

CAP COM ROGER. (PAUSE) APOLLO 7, HOUSTON.

SC GO AHEAD.

CAP COM ROG, DONN. DO YOU HAVE TIME TO GIVE
US A LITTLE RUN DOWN WHERE YOU FOUND OUT THE BEST PLACE TO
SLEEP IS.

SC YEAH, WE'RE STILL SLEEPING IN THE
COUCH SPACE AND THAT SEEMS TO WORK OUT BEST. WE'VE TRIED
... AND TRIED KEEPING STRAPPED DOWN IN THE ... RANGE AND
THE LATTER SEEMS TO BE BETTER OFF. YOU CAN ALSO SLEEP IN
THE COUCHES STRAPPED DOWN I GUESS BUT IF THERE'S MORE THAN
ONE PERSON YOU'RE KIND OF IN THE WAY. ANOTHER PROBLEM WITH
SLEEPING UNDER THE COUCH AT LEAST ON THE RIGHT SIDE, I
HAVEN'T CHECKED THE LEFT, BUT I KNOW ON THE RIGHT IT TENDS
TO GET HOT UNDER THERE FOR SOME REASON. NOT HOT, BUT A
LITTLE WARMER THAN THE REST OF THE SPACECRAFT. I DON'T
THINK THERE'S ... SITUATION.

CAP COM ROG, THANK YOU DONN. WE COPIED.
APOLLO 7, HOUSTON.

SC HEY, YOU DID IT.

CAP COM MR. EISELE.

SC THAT'S RIGHT.

CAP COM DONN, WHAT'S THE WORD - WHAT'S THE
CONFIGURATION OF YOUR WINDOW SHADES WHEN YOU HAVE MOST OF
THEM ASLEEP? DO YOU HAVE MOST OF YOUR WINDOW SHADES UP?

SC AH, NEGATIVE. WE HAVEN'T EVEN PULLED
DOWN A SHADE THE WHOLE FLIGHT.

CAP COM OKAY.

SC IF THERE SEEMS TO BE A PROBLEM WHEN
YOUR ASLEEP, YOU JUST BURY YOUR HEAD UNDER SOMETHING DOWN
UNDER THE COUCH AND YOU DON'T EVEN NOTICE THE SUNLIGHT MUCH.

CAP COM OKAY. LET ME ASK YOU ONE OTHER QUES-
TION, STRIKE THIS OUT, WHAT ABOUT WITH RESPECT TO THAT TELE-
SCOPE AND STARS IN THE DAYTIME, CAN YOU ASCERTAIN ANYTHING
AT ALL UNTIL YOU HAVE PASSED THE TERMINATOR OUT OF THE TELE-
SCOPE?

APOLLO 7 COMMENTARY, 10/15/68, GET: 1090040 (CDT 11:00P) 355/2

SC NO, WE STARTED OUT TO, AH, YOU MEAN
COMING INTO SUNSET?

CAP COM YEAH, IN OTHER WORDS DOING A P-51
DURING DAYTIME.

SC ROGER. IF YOU LUCKED OUT AND HAPPEN
TO END UP AT THE OPTIMUM POSITION, THAT IS IN OTHER WORDS
WELL AWAY FROM THE EARTH AND ALSO WELL AWAY FROM THE SUN, I
BELIEVE THAT, AH, SAY FIVE TO TEN MINUTES FROM SUNSET OR
SUNRISE YOU'D PROBABLY COULD SEE IT. LIKE LAST NIGHT, AT
THAT ONE SETTING, ...THERE I COULD HAVE DONE AN ALINEMENT
BUT THE PROBLEM OF THE P-51 IS THAT WE DON'T HAVE AN ALIGN-
MENT TO START WITH AND YOU DON'T KNOW HOW TO PLACE THE SET-
TING.

CAP COM YEAH. ALRIGHTY REAL FINE.

SC ... GOT, AH, IF YOU ALREADY HAD AN
ALIGNMENT, YOU'D JUST RATHER DO A FINE ALIGN, WE COULD DO
THAT OKAY. (CUT OUT)AND I ASKED THE ... SEXTANT DAYLIGHT.

CAP COM OKAY. (PAUSE) APOLLO 7, HOUSTON
OPPOSITE OMNI.

SC ROGER.

CAP COM ALRIGHT, LOS REDSTONE AT 32.

SC ROGER.

PAO THIS IS MISSION CONTROL. WE'VE LOST
CONTACT NOW WITH THE SPACECRAFT AS IT MOVED OVER THE HORIZON
AND OUT OF RANGE OF THE GUAM TRACKING STATION. WE HAD OVER-
LAPPING COVERAGE AT THAT PASS FROM THE MERCURY AND THE STA-
TION AT GUAM, SPACECRAFT PASSING ALMOST DIRECTLY OVERHEAD
BOTH STATIONS. WE WILL BE ACQUIRING AGAIN IN JUST ABOUT
20 MINUTES AT THE REDSTONE IN THE SOUTH PACIFIC. HERE IN
MISSION CONTROL CENTER AT THE PRESENT TIME WE'RE IN THE
MIDST OF A CHANGE OF SHIFT OF FLIGHT DIRECTOR GENE KRANZ
WHO WILL BE GOING OFF AND WHO WILL BE REPLACED ON THE FLIGHT
DIRECTOR COUNCIL BY JERRY GRIFFIN AND AT THE CAP COM POSITION
WE'LL HAVE ASTRONAUT BILL POGUE TAKING OVER FROM RON EVANS.
AT 109 HOURS 14 MINUTES INTO THE MISSION, THIS IS APOLLO
CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/15/68, GET: 1093200 (CDT 11:35) 356/1

PAO THIS IS APOLLO CONTROL AT 109 HOURS,
32 MINUTES. I HAVE JUST PUT IN A CALL TO THE CREW, AND WE
PICK UP CONVERSATIONS OVER THE REDSTONE.

SC (GARBLE) IS THAT BETTER?

CAPCOM SAY AGAIN, SLOWER, I COULDN'T READ YOU.
ALL RIGHT, DISREGARD. APOLLO 7, HOUSTON. HOW DO YOU READ?

SC LOUD AND CLEAR.

CAPCOM OKAY, YOU'RE COMING IN LOUD AND CLEAR.
BEFORE WE HAVE SOME QUIET TARGETS, I WOULD LIKE TO ASK YOU
A COUPLE MORE OF QUESTIONS, DON. WHEN YOU'RE IN THE LOCAL
HORIZONTAL ATTITUDE, CAN YOU OBSERVE THESE HORIZONS WITHOUT
THE RENDEZVOUS WINDOWS BELOW YOU?

SC YOU MEAN HOW FAR ALONG THE IMPACT CAN
YOU SEE?

CAPCOM YEAH.

SC I DON'T KNOW. I'VE NEVER BEEN PRECISELY
IN THAT ATTITUDE TO LOOK. I DON'T BELIEVE YOU CAN THOUGH.

CAPCOM OKAY, WELL, LET'S -

SC NOW IN THAT STAGE, TOM, WE HAVE NEVER
REALLY DONE ANY PRECISE LOCAL HORIZONTAL MANEUVERS YET.

CAPCOM OKAY, WELL, IN THE NEXT DAY OR SO IF
YOU GET A CHANCE I WISH YOU WOULD DO THAT SO WE CAN GET OUR
SIMULATORS CALIBRATED. AND ALSO OUT THE SIDE WINDOWS, THE
ONE AND SIDE WINDOW WHEN YOU'RE IN LOCAL HORIZONTAL, IF YOU
WILL JUST MAKE A PENCIL MARK THERE, WE CAN THEN GET OUR
SIMULATORS CALIBRATED TO THAT.

SC OKAY, A GOOD TIME TO DO THAT MAY BE IN
THE LAND MARK TRACKING, 14 LINED UP LOCAL, HORIZONTAL ANY-
WAY.

CAPCOM OKAY, IF YOU CAN JUST MAKE A NOTE OF
THAT AND CHECK BECAUSE IT WILL SURE HELP US IN GETTING THESE
- YOU KNOW THESE QUAD 30 DATAS FOR THE SIMULATORS AND ALSO
PASS ON TO THE OTHER CREWS.

SC OKAY, WILL DO. INCIDENTALLY, THE OPTICS
OF THE SIMULATOR ARE PRETTY REALISTIC. THE LINES SEEN
THROUGH THESE OPTICS IN HERE ARE ALMOST IDENTICAL WITH
RESPECT TO STAR VISABILITY AND SO ON.

CAPCOM OH, OKAY, WE'RE SUPPOSE TO PICTURE WITH
THE TELESCOPE WHAT WE SEE IN THE TELESCOPE IS ABOUT WHAT
YOU GOT THERE IN FLIGHT, DON.

SC THAT'S EXACTLY RIGHT. YOU HAVE TO KEEP
YOUR EYEBALL ON THERE FOR A WHILE, YOU SEE BEFORE YOU
CAN BEGIN TO SEE ANY STARS.

CAPCOM I SEE.

SC USING THE TELESCOPE.

CAPCOM OKAY.

SC YOU CAN SEE OUT THE WINDOWS.

CAPCOM OKAY, THAT IS EVEN AT NIGHT TIME TOO?

SC THAT'S RIGHT.

APOLLO 7 COMMENTARY, 10/15/68, GET: 1093200 (CDT 11:35) 356/2

SC HOUSTON, APOLLO 7.
CAPCOM APOLLO 7, HOUSTON, GO.
SC OH, HI BILL. I JUST CHECKED THE COMMAND
MODULE RCS TEMPERATURES AND ALL SIX OF THEM ARE PRETTY GOOD
50 PLUS.

CAPCOM ROGER, UNDERSTAND. ALL THE CM RC - CM
RCS TEMPS ARE PEGGED 50 PLUS.

SC THAT'S RIGHT.

CAPCOM OKAY. APOLLO 7, HOUSTON, 1 MINUTE LOS
REDSTONE, ASCENSION ON THE HOUR.

SC ROGER.

PAO THIS IS MISSION CONTROL. WE'VE LOST
COMMUNICATIONS NOW WITH THE SPACECRAFT. THE SPACECRAFT HAS
GONE OVER THE HORIZON AND OUT OF TOUCH WITH THE TRACKING SHIP
REDSTONE. WE CONTINUE TO HAVE VERY GOOD COMMUNICATIONS ON
THAT PASS AS WE HAVE IN THE LAST SEVERAL PASSES. ALL OF
THEM HAVE BEEN ALMOST DIRECTLY OVERHEAD. THIS ONE - A LITTLE
OFF TO THE SOUTH, ACTUALLY, OF THE TRACKING SHIP. THE
FIRST PART OF THAT PASS, YOU HEARD DON EISELE ADVISE TOM
STAFFORD WHO IS SITTING IN AT THE CAPCOM POSITION ALONG WITH
ASTRONAUT BILL POGUE HERE IN MISSION CONTROL CENTER. HE
FOUND THE OPTICS ON THE SPACECRAFT TO BE VERY SIMILAR TO
WHAT HE EXPERIENCED IN THE GROUND BASED SIMULATORS AT
CAPE KENNEDY AND HERE IN HOUSTON. IN THE WAY OF LOGISTICS
INFORMATION WE EXPECT THAT WE WILL BE HAVING A CHANGE OF
SHIFT PRESS CONFERENCE IN ABOUT 10 MINUTES IN THE BUILDING 1
NEWS CENTER. THE NEXT STATION THAT WILL BE ACQUIRING THE
SPACECRAFT - WILL BE THE ASCENSION STATION AND WE ANTICIPATE
WE WILL BE RECORDING THAT PASS AND SUBSEQUENT PASSES.
WE WILL PLAY THOSE BACK FOLLOWING THE PRESS CONFERENCE.
AT 109 HOURS, 42 MINUTES, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1103600 (CDT 12:40) 357/1

PAO THIS IS APOLLO CONTROL AT 110 HOURS 37 MINUTES. WE'VE HAD A RELATIVELY QUIET PERIOD HERE AT THE MISSION CONTROL CENTER SINCE THE PRESS CONFERENCE BEGAN. ONE SHORT PASS SO FAR, THAT WAS OVER THE TRACKING STATION ON ASCENSION AND WE'LL PLAY THAT ONE BACK FOR YOU IN ITS ENTIRETY NOW AND STAND BY FOR CONVERSATION WITH THE MERCURY. THE SPACECRAFT JUST COMING INTO ACQUISITION AT MERCURY AT THIS TIME.

CAP COM APOLLO 7, HOUSTON THROUGH ASCENSION.
SC AH, ROG, BILL, APOLLO 7.
CAP COM APOLLO 7, HOUSTON.
SC ROGER HOUSTON, GO.
CAP COM ROG, COULD YOU GIVE US AN ESTIMATE ON
THE TIME THE CDR AND LMP WENT TO SLEEP.
SC YES, I'LL LOOK AT THE LOG HERE.
CAP COM SAY AGAIN PLEASE?
SC I THINK IT WAS 109 HOURS, 108 HOURS.
CAP COM ROG.
PAO

AND THAT'S THE SUBSTANCE OF COMMUNICATIONS WITH ASTRONAUT DON EISELE OVER THE ASCENSION TRACKING STATION. IT DOESN'T APPEAR THAT WE ARE GOING TO GET ACQUISITION FROM THE TRACKING SHIP MERCURY. THAT PASS GOES DOWN, JUST TOUCHES THE EDGE OF THE ACQUISITION CIRCLE AND WE ARE APPARENTLY OUT OF RANGE OF COMMUNICATIONS THERE. IN THAT PREVIOUS PASS OVER ASCENSION, YOU HEARD DON EISELE ADVISE THAT COMMANDER WALLY SCHIRRA AND LUNAR MODULE PILOT WALT CUNNINGHAM WENT TO SLEEP AT ABOUT 106 HOURS INTO THE MISSION, THAT WOULD HAVE BEEN ROUGHLY 2-1/2 HOURS AGO AND WE DO ANTICIPATE THAT THEY WILL BE ABLE TO GET AT LEAST A FULL EIGHT HOURS OF SLEEP. THE MEDIC ALSO REPORTS THAT ALL OF OUR BIOMEDICAL INSTRUMENTATION APPEARS TO BE WORKING WELL AT THIS TIME. THE NEXT STATION TO ACQUIRE THE SPACECRAFT WILL BE THE TRACKING SHIP REDSTONE AND THAT ACQUISITION IS SCHEDULED AT 111 HOURS 5 MINUTES GROUND ELAPSED TIME, ROUGHLY 34 MINUTES FROM NOW. AT 110 HOURS 39 MINUTES, THIS IS APOLLO CONTROL.

END OF TAPE

PAO THIS IS MISSION CONTROL CENTER AT 111 HOURS, 6 MINUTES INTO THE FLIGHT. THE APOLLO 7 SPACE CRAFT IS PRESENTLY APPROACHING A TRACKING SHIP REDSTONE IN THE MIDST OF A NIGHT SIDE PASS DURING THE END OF THE SEVENTY FIRST REVOLUTION. WE'LL STANDBY FOR A CALL TO THE CREW VIA THE REDSTONE.

CAPCOM APOLLO 7, HOUSTON, THROUGH THE REDSTONE.

SC ROGER, HOUSTON, APOLLO 7.

CAPCOM IT LOOKS LIKE WE BOTH HAVE THE NIGHT WATCH.

SC YEAU, IT WORKS OUT THAT WAY, DOESN'T IT?

CAPCOM APOLLO 7, HOUSTON.

SC ROGER, HOUSTON, 7 GO.

CAPCOM SEE - I HAVE A PROCEDURE HERE ON THIS TELEVISION OPERATION WHICH I JUST NOW PASSED UP SO YOU DON'T NEED TO WRITE IT DOWN. AND IT IS PRETTY SIMPLE. IT INVOLVES A TECHNIQUE TO GET THE BEST TV PICTURE AND IT SORTA GOES LIKE THIS. WHEN HOLDING THE TV DURING THE NEXT TV PERIOD, TAKE A LOOK AT THE POSITION OF THE AL SWITCH AND REPORT THE POSITION. THAT'S PROBABLY BEFORE YOU START TAKING THE TELEVISION PICTURES. THEN ABOUT ONE HALF WAY THROUGH DURING THE PERIOD OF TELEVISION CHANGE THE POSITION OF THIS AL SWITCH. THE AL STANDS FOR AUTO LIGHT ALTHOUGH IT IS NOT AUTOMATIC.

SC OKAY, I GOT YOU.

CAPCOM AND -

SC USING THE AL OUT.

CAPCOM ALL RIGHT, THEY WILL BE COORDINATED WITH YOU FROM THE GROUND. ALSO, ANOTHER POINT IT TAKES THE TV ABOUT 90 SECONDS TO WARM UP, ABOUT A MINUTE AND A HALF TO WARM UP.

SC I SEE. OKAY, WE'LL KEEP THAT IN MIND.

CAPCOM OKAY, THANK YOU. APOLLO 7, HOUSTON. WE WOULD LIKE TO TURN THE O2 TANK TO FANS ON FOR 5 MINUTES AND THEN OFF. I'LL REMIND YOU JUST ABOUT LOS. APOLLO 7, HOUSTON. I MAY HAVE PASSED THAT UP INCORRECTLY. IF I SAID OFF, IT SHOULD BE ON. TURN THEM ON FOR 5 MINUTES AND THEN OFF.

SC ROGER, I GOT YOU, KEEP GOING NOW.

CAPCOM APOLLO 7, HOUSTON. SAY DON, WE'RE NOT GETTING ANYTHING ON THE BIOMED. HAVE YOU CHANGED ANYTHING?

SC ALL RIGHT, ROGER, I'LL HAVE IT ON IN A COUPLE OF MINUTES.

CAPCOM OKAY, THANK YOU. APOLLO 7, HOUSTON, OPPOSITE ANOMALY, PLEASE. ALSO, I HAVE A LITTLE BIT MORE INFORMATION ON THAT TELEVISION. THAT AL STANDS FOR AUTOMATIC LIGHT CONTROL. IT IS SIMILAR TO AUTOMATIC GAIN CONTROL ELECTRONIC CIRCUIT APPARENTLY. AND IT PRESENTS A BRIGHT LIGHT SOURCE FROM SORT OF WASHING OUT THE PICTURE.

APOLLO 7 COMMENTARY, 10/16/68, GET: 1110600 (CDT 1:08) 358/2

SC NOW I WOULD LIKE TO GO...
CAPCOM THANK YOU. APOLLO-7, HOUSTON, COMING
UP ON LOS - CANARY AT 36.
SC ROGER, READ YOU.
CAPCOM AND YOU CAN TURN THE - CRYO TWO TANK
FAN BACK OFF.
SC ROGER.
PAO AND WE HAVE LOST OF SIGNAL WITH THE SPACE-
CRAFT OVER THE REDSTONE. THE NEXT STATION TO ACQUIRE WILL
BE THE CANARY ISLANDS IN ABOUT 22 MINUTES FROM NOW. THIS
WILL BE THE FIRST CONTACT OVER THE CANARIES IN SOMETIME AS
THE SPACECRAFT ORBIT BEGINS TO SWING BACK TOWARD THE NORTH-
ERN PART OF THE WESTERN HEMISPHERE AND TOWARDS THE - HIGH
COVERAGE WE GOT ON OUR STATE SIDE PASSES. AT 111 HOURS,
15 MINUTES INTO THE MISSION, THIS IS APOLLO CONTROL.

END OF TAPE

PAO THIS IS APOLLO CONTROL 111 HOURS, 36 MINUTES INTO THE MISSION. THE SPACECRAFT IS NOW COMING UPON THE CANARY ISLANDS TRACKING STATION COMING OUT OF DARKNESS AND INTO DAYLIGHT AS THE CREMATOR, THE LINE THAT SEPARATES THE LIGHT AND THE DAY AND THE NIGHT PERIODS ON THE SURFACE OF THE EARTH BEGINS TO MOVE OVER TOWARD THE STATES. AND WE'LL BE ACQUIRING THE SPACECRAFT SHORTLY FROM CANARIES. WE'LL STANDBY FOR A CALL TO THE CREW.

CAPCOM APOLLO 7, HOUSTON.

SC THIS IS APOLLO 7.

CAPCOM ROGER. THROUGH CANARY I HAVE A REQUEST. I WOULD LIKE A READING ON PYRO BAT A, B, AND BAT C.

SC ROGER. BAT C IS 36.0.

CAPCOM 36.0.

SC STANDBY FOR THE PYROS.

CAPCOM ROGER.

SC DALE, I'M READING 37.0 FOR BOTH PYROS.

CAPCOM ROGER, 37.0. IN WHAT POSITION ARE YOU LEAVING THE DC INDICATOR?

SC OH, IT VARIES. I USUALLY LEAVE IT ON ONE OF THE MAIN BUS VOLTAGES.

CAPCOM ROGER, GOOD. THAT IS WHAT WE LIKE, MAIN A OR B.

SC ROGER.

CAPCOM THANK YOU.

SC HEY, BILL.

CAPCOM ROGER.

SC ASK THE TOWER IF THEY ARE GOING TO RECOMMEND A TYPE SETTING TOO.

CAPCOM OKAY, WILL AND YOU MIGHT CHECK THE SWITCH AND THROTTLE THERE.

SC ROGER. (LAUGHTER)

CAPCOM WHEN I SHAKE THE STICK MOBILE, YOU'VE GOT IT.

SC IT SAYS USE PLENTY.

CAPCOM APOLLO 7, HOUSTON, OPPOSITE ANOMALY.

SC ROGER.

CAPCOM THANK YOU. APOLLO 7, HOUSTON, 1 MINUTE LOS CANARY, HONEYSUCKLE AT 23.

SC ROGER, HONEYSUCKLE AT 23.

CAPCOM ROGER.

SC DO YOU WANT ME TO STAND UP FOR THAT?

CAPCOM ROGER. (LAUGHTER) STAND UP FOR THAT ONE. RIGHT.

SC THIS IS MISSION CONTROL. THE SPACECRAFT

PAO HAS NOW GONE OVER THE HILL AND OUT OF ACQUISITION FROM CANARY ISLANDS. THE NEXT STATION TO ACQUIRE WILL BE ANOTHER ONE THAT WE - HAVEN'T PASSED OVER FOR SOMETIME. THAT WILL BE HONEYSUCKLE ON - THE EASTERN PART OF AUSTRALIA. AS YOU

APOLLO 7 COMMENTARY, 10/16/68, GET: 1113600 (CDT 1:38) 359/2

PAO HEARD IN THAT PASS, A BIT OF LIGHT HEARTED CONVERSATION BETWEEN DON EISELE AND THE GROUND, EISELE, REQUESTING A FLAP SETTING WHICH OF COURSE REFERS TO AERODYNAMIC FLIGHT IN THE AIRCRAFT AND THE EARTH'S ATMOSPHERE. OUR INDICATIONS HERE IN MISSION CONTROL CENTER ARE THAT EVERYTHING CONTINUES TO FUNCTION WELL WITH THE SPACECRAFT. THERE ARE NO PROBLEMS AT THIS TIME. THIS IS APOLLO CONTROL AT 111 HOURS, 46 MINUTES INTO THE MISSION.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1122300 (CDT 2:26) 360/1

PAO THIS IS APOLLO CONTROL AT 112 HOURS, 23 MINUTES INTO THE MISSION. THE APOLLO 7 SPACECRAFT HAS JUST CROSSED JUST OVER THE NORTHEASTERN EDGE OF THE AUSTRALIAN CONTINENT AND IS JUST BARELY WITHIN RANGE OF HONEYSUCKLE. WE DON'T ANTICIPATE ANY CONVERSATION WITH THE CREW ON THIS PASS. HOWEVER, CAPCOM BILL POGUE IS PUTTING IN A CALL. AND WE'LL STANDBY TO SEE IF WE GET A RESPONSE FROM DON EISELE.

CAPCOM OKAY.

PAO AND IT DOESN'T APPEAR THAT WE WILL HEAR FROM THE SPACECRAFT ON THIS PASS OVER HONEYSUCKLE. HOWEVER, WE SHOULD HAVE VERY COMMUNICATIONS ON THE UPCOMING PASS OVER THE REDSTONE TRACKING SHIP. HERE IN MISSION CONTROL CENTER IT HAS BEEN A VERY QUIET EVENING AS IT HAS ALSO BEEN ABOARD THE SPACECRAFT AND VERY LITTLE SCHEDULED ON THE FLIGHT PLAN FOR THE NEXT 4 HOURS AS COMMANDER WALLY SCHIRRA AND LM PILOT WALT CUNNINGHAM ARE NOW ABOUT 4 - 4 AND 1/2 HOURS INTO THEIR SLEEP PERIOD. THE NEXT MAJOR ACTIVITY FOR THE CREW FOLLOWING BREAKFAST WILL BE ACTINESE CONNECTED WITH A MINIMUM IMPULSE SPS SERVICE PROPULSION SYSTEM BURN. AND IN ABOUT 6 HOURS FROM NOW, THEY SHOULD BEGIN POWERING UP SOME OF THE SPACECRAFT EQUIPMENT ASSOCIATED WITH THAT BURN, SUCH AS THE GUIDANCE AND NAVIGATION SYSTEM AND THE STABILIZATION AND CONTROL SYSTEM WITH THE BURN SCHEDULED ABOUT 2 HOURS AFTER THAT. AT 112 HOURS, 27 MINUTES INTO THE FLIGHT, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1123900 (CDT 2:42A) 361/1

PAO THIS IS APOLLO CONTROL AT 112 HOURS 39 MINUTES. THE SPACECRAFT IS NOW COMING UPON THE REDSTONE TRACKING SHIP IN THE SOUTH PACIFIC. THIS IS IN THE MIDDLE OF THE NIGHTSIDE PASS AND CAP COM BILL POGUE ADVISES THAT HE ANTICIPATES MOST OF THIS PASS OVER THE REDSTONE AND THE SUBSEQUENT PASS OVER ANTIGUA WILL BE TAKEN UP BY PASSING UP A FLIGHT PLAN UPDATE TO DONN EISELE ABOARD APOLLO 7. WE JUST PUT IN A CALL TO THE SPACECRAFT, WE'LL STAND BY.

SC ROGER, HOUSTON. GO AHEAD WITH YOUR FLIGHT PLAN UPDATE. ALSO WOULD LIKE ... UPDATE WHEN YOU GET THROUGH WITH THIS ONE.

CAP COM ROG. I'LL GIVE YOU A NAV. UPDATE AS SOON AS I GET THROUGH WITH THE FLIGHT PLAN.

SC BILL, WOULD YOU LOG ME 40 CLICKS WITH THE WATER PISTOL AND 2 ASPIRINS PLEASE?

CAP COM HOW MANY CLICKS?

SC FOUR-ZERO.

CAP COM ROG. 40 CLICKS ON THE WATER AND 2 ASPIRINS.

SC IN FOUR HOURS.

CAP COM THE FLIGHT PLAN UPDATE WILL START AT 115 + 10 CMC POWERUP.

SC ROGER.

CAP COM OKAY. YOU CAN DELETE THE REFERENCE TO CMC POWERUP AT 117 + 20. ROGER, AT 118 + 00, ADD FUEL CELL O2 PURGE ALSO UNSTOW AND SET UP TV. THAT'S AT 118 + 00 HOURS.

SC ROGER.

CAP COM NEXT ITEM IS AT 119 + 04, TV ON.

SC ROGER. TV ON AT 119:04, TV ON. DO YOU WANT US TO TURN IT ON 90 SECONDS BEFORE AND LET IT WARM UP OR IS THAT THE TURN ON TIME YOU WANT.

CAP COM ROG. THAT'LL TAKE CARE OF IT. THE TEXAS AOS IS 119 + 06 AND SORRY TO INTERRUPT BUT WE NEED OPPOSITE OMNI.

SC ROGER.

CAP COM AND DONN, YOU CAN LET ME KNOW WHEN YOU'RE READY TO RESUME COPY OF FLIGHT PLAN UPDATE.

SC ROGER. I'M ALL READY.

CAP COM OKAY, AT 119 + 30 FCS ATTITUDE REFERENCE CHECK (PREVIOUSLY SCHEDULED AT 89 HOURS 50 MINUTES, 89 + 50 MINUTES). THAT'S JUST FOR INFORMATION. AND, WE'D LIKE THAT SCS ATTITUDE REFERENCE CHECK STARTING AT 119 + 30 AT 30 MINUTE INTERVALS UP TO THE TIME OF THE BURN.

SC ROGER (GARBLE)

CAP COM SO IF YOU WANT TO MAKE A PICK AT 120 + 00 AND 120 + 30.

SC OKAY.

APOLLO 7 COMMENTARY, 10/16/68, GET: 1123900 (CDT 2:42A) 361/2

CAP COM OKAY. THE NOTATION AT 121 HOURS IN
REFERENCE TO SPS BURN FOUR, THE TIME IS 120 + 43.

SC ROGER, UNDERSTAND THAT YOU'RE GOING
TO BURN AT 120 + 43.

CAP COM ROGER, AND OVER THERE IN THE BOX
WHERE IT SAYS TWO JET ULLAGE, YOU CAN WRITE IN QUADS BRAVO
AND DELTA, QUADS B&D.

SC ROG, WE GOT 'CHA ON THAT.

CAP COM ROGER AND YOU CAN DELETE THE LINE IN
REFERENCE TO INITIATE BATTERY CHARGING.

SC OKAY, GOT THAT.

CAP COM DELETE THE HALF BOX IN REFERENCE TO
THE STAR COUNT TEST THERE, THE TELESCOPE STAR COUNT TEST
SUN, LIGHT, SIGHT, ET CETERA.

SC ROGER.

CAP COM UNDER THE LINE WHERE IT SAYS MCC UP-
DATE, ADD FOR LANDMARK TRACKING. YOU WILL RECEIVE AN UPDATE
FOR LANDMARK TRACKING AT THAT TIME.

SC UNDERSTAND LANDMARK TRACKING UPDATE.

CAP COM ROG, AND AT 121 + 20 P-52 OPTION THREE.

SC ROGER.

CAP COM AT 121 + 40 STATE VECTOR VOICE UPDATE.

SC YOU SAY STATE VECTOR VOICE UPDATE?

CAP COM AFFIRMATIVE.

SC WHAT'S THAT FOR?

CAP COM STAND BY. THAT'S FOR THE LANDMARK
TRACKING, IN CASE YOU NEED IT. IF REQUIRED, THAT'S IN
CASE YOU NEED IT FOR THE LANDMARK TRACKING, IT'S NOT --
AH, ROG, IN CASE ANYTHING HAPPENS DURING THE LANDMARK TRACK-
ING YOU'LL HAVE A STATE VECTOR TO FALL BACK ON.

SC OH, I GET 'CHA.

CAP COM OKAY, YOU CAN DELETE THE REFERENCE TO
THE STAR COUNT TEST THREE AT 122 HOURS. APOLLO 7, WE'RE
COMING UP ON LOS REDSTONE. I'LL PICK YOU UP AT ANTIGUA FOR
THE REST OF THE FLIGHT PLAN UPDATE.

SC OKAY.

CAP COM ANTIGUA AT 58. APOLLO 7, HOUSTON IF
YOU'RE STILL READING, THE MAP UPDATE IS REV. 72, LOAD 112 +
56 + 50, 74.9 DEGREES WEST.

PAO THIS IS MISSION CONTROL. WE'VE LOST
CONTACT WITH THE SPACECRAFT OVER REDSTONE AND WILL ACQUIRE
AGAIN IN ABOUT 10 MINUTES FROM THE ANTIGUA STATION. THIS
IS APOLLO CONTROL AT 112 HOURS 49 MINUTES.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1125800 (CDT 3:01) 362/1

PAO THIS IS MISSION CONTROL. THE APOLLO 7 SPACECRAFT IS NOW COMING UPON THE ANTIGUA TRACKING STATION AT 112 HOURS, 58 MINUTES INTO THE MISSION. WE'LL STANDBY FOR THE CALL UP TO THE CREW AND THE REMAINDER OF THIS FLIGHT PLAN UPDATE WHICH CAPCOM BILL POGUE WAS IN THE PROCESS OF PASSING UP WHEN WE LOST ACQUISITION WITH THE REDSTONE.

CAPCOM APOLLO 7, HOUSTON, THROUGH ANTIGUA.

SC GO AHEAD, HOUSTON.

CAPCOM ROGER. I'LL GO AHEAD WITH THE FLIGHT PLAN UPDATE. BEFORE I START, DID YOU READ THE MAP UPDATE?

SC I GOT A REV 72 AND A 12 PLUS 56.

CAPCOM OKAY. REV 72, 112 PLUS 56 PLUS 50, NODAL CROSSING AT 74, NINER WEST.

SC ROGER. 56 PLUS 50 AND THEN 74. NINER WEST.

CAPCOM ROGER. AND CONTINUING WITH THE FLIGHT PLAN UPDATE AT 122 HOURS.

SC ROGER, GO.

CAPCOM ROGER, AT 122 HOURS, DELETE THE 3 REFERENCES. H2 HEATERS ON, TELESCOPE STAR COUNT, AND FUEL CELL PURGE. ADD AT 112 HOURS, 222 ORB NAV (EXCEPT MARKS). AT 112 PLUS 20, P23 UPDATE, STAR IN GIMBAL ANGLES.

SC GOT YOU AT 112 PLUS 20 YOU GOT A P PLUS A PACK OF 122, WHAT DID YOU SAY ABOUT THE LANDMARKS AGAIN, I DIDN'T GET THAT.

CAPCOM OKAY. THAT WAS NOT LANDMARKS. PERHAPS, IT IS SUFFICIENT JUST TO SAY THAT AT 122 HOURS P22 ORB LAV, AND AT 122 PLUS 20, P23 UPDATE.

SC DOES THAT MEAN YOU WANT ME TO DO A P PLUS - ORBITAL NAVIGATION IN 122.

CAPCOM AFFIRMATIVE.

SC NOW LET'S - OKAY. I DON'T GET IT. YOU WANT ME TO DO A PLAN FROM 122 ON SOMETIME AND ALSO DURING THAT PERIOD YOU ARE GOING TO BE READING UPDATES TO US - IN THIS PERIOD?

CAPCOM WELL, AT 122 PLUS 20, THERE WILL BE A 223 UPDATE STARING GIMBAL ANGLES.

SC OKAY. DON'T YOU THINK THAT MIGHT BE A BETTER OFF A LITTLE LATER AFTER WE GET DONE WITH MY OWN LITTLE NAV.

CAPCOM OKAY, LET'S TALK ABOUT IT IN JUST A MINUTE. LET ME GO AHEAD AND GO THROUGH THE REST OF THE UPDATES. AT 123 HOURS, DELETE THE REFERENCE TO COAS CALIBRATION. AT 123 PLUS 30, ADD 223 STAR HORIZON SIGHTING. YOU CAN DELETE THE REFERENCE TO THE ATTITUDE CONTROL TESTS THAT OCCUR AT ABOUT 123 PLUS 45.

SC ROGER.

CAPCOM AT 124 PLUS 20, ADD G & N, SCS POWER DOWN AND DELETE THE REFERENCE TO P54 COAS EVALUATION.

SC ROGER, BILL.
CAPCOM OKAY.
SC GO AHEAD.
CAPCOM AT 125 PLUS 30, DELETE THE REFERENCE TO
P25.
SC ROGER.
CAPCOM AND THAT IS THE END OF THE UPDATE. LET
ME CHECK ON THIS OTHER THING.
SC OKAY, HOW LONG DOES THIS PASS OF THIS
EARTH MASS IS SUPPOSE TO BE?
CAPCOM OKAY, STANDBY. THE ORB NAV TAKES ONE
DAYLIGHT PASS.
SC ALL RIGHT, THAT IS JUST WHAT I THOUGHT.
CAPCOM OKAY, AND YOU ARE THINKING THAT THE
P23 UPDATE IS GOING TO CATCH YOU RIGHT IN THE MIDDLE THERE.
SC IT SHOULDN'T BE TOO BAD. WALT CAN
PROBABLY WRITE IT DOWN WHILE WE'RE DOING THE REST OF IT.
CAPCOM OKAY.
SC HOW COME YOU MOVE IT UP TO 23 - UP
2 HOURS, IS THAT TO GET DONE SO WE CAN GET TO BED?
CAPCOM AFFIRMATIVE.
SC I SEE.
CAPCOM WE'RE COMING UPON LOS. AND ONE OTHER
QUICK ITEM- WE JUST WANT TO - AT THE POINT AT THE REST OF
THE LABORING POINT, DONN AND WALLY'S, CORRECTION WALLY AND
WALT'S SLEEP PERIOD LAST UNTIL 116 PLUS 00 HOURS.
SC ROGER, I GOT THAT.
CAPCOM OKAY. WE WILL HAVE CANARIES AT 0 NINER.
SC OKAY, I'LL SEE YOU THEN.
CAPCOM THANK YOU.
PAO THIS IS MISSION CONTROL. WE HAD LOST
OF SIGNAL FROM ANTIGUA. AND WE WILL BE PICKING UP THE
CANARY STATION IN ABOUT - ABOUT 5 MINUTES FROM NOW. AS YOU
HEARD THE SLEEP PERIOD FOR COMMANDER WALLY SCHIRRA AND
WALT CUNNINGHAM IS SCHEDULED TO LAST THROUGH 116 HOURS.
AND WE HAVE BEEN ADVISED THAT THEY BEGAN THEIR SLEEP PERIOD
AT ABOUT 108 HOURS, ELAPSED TIME WHICH WOULD GIVE THEM A FULL
8 HOURS SLEEP. AT 113 HOURS, 6 MINUTES, THIS IS APOLLO
CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1130800 (CDT 3:11A) 363/1

PAO THIS IS APOLLO CONTROL AT 113 HOURS
10 MINUTES. WE'LL BE PUTTING IN A CALL SHORTLY TO THE
SPACECRAFT OVER CANARIES, LET'S LISTEN IN ON THAT ONE.

CAP COM APOLLO 7, HOUSTON THROUGH CANARY.

SC ROGER BILL.

CAP COM APOLLO 7, HOUSTON. COMING UP ONE
MINUTE LOS CANARY. CARNARVON AT 46.

SC ROGER.

PAO THIS IS MISSION CONTROL. WE HAD A
VERY QUIET PASS THAT TIME OVER CANARIES WHICH IS TYPICAL OF
MOST OF THE CONTACTS WE'VE HAD THIS EVENING WITH THE SPACE-
CRAFT. THIS MISSION CONTINUES TO PROGRESS VERY WELL AT THIS
POINT AND THE NEXT STATION TO ACQUIRE WILL BE CARNARVON,
AUSTRALIA AND WE EXPECT THAT IN ABOUT 30 MINUTES FROM NOW.
THIS IS APOLLO CONTROL AT 113 HOURS 18 MINUTES.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1134600 (CDT 3:48A) 364/1

PAO THIS IS MISSION CONTROL. THE APOLLO 7 SPACECRAFT IS NOW A LITTLE MORE THAN ONE HALF WAY THROUGH ITS 72ND REVOLUTION, SOME 113 HOURS 46 MINUTES AFTER LIFTOFF AND WE'RE COMING UP ON THE CARNARVON TRACKING STATION. WE'LL LISTEN FOR ANY REPORTS FROM THE SPACECRAFT AS WE COMPLETE THIS AUSTRALIAN PASS.

CAP COM APOLLO 7, HOUSTON THROUGH CARNARVON.

SC ROGER HOUSTON, APOLLO 7.

CAP COM APOLLO 7, HOUSTON ONE MINUTE LOS CARNARVON. S-BAND VOLUME UP AT 53 FOR HONEYSUCKLE.

SC ROGER.

PAO THIS IS MISSION CONTROL. WE DON'T EXPECT ANY FURTHER CONVERSATION WITH THE SPACECRAFT FOR ABOUT 2 MORE MINUTES WHILE THAT COVERS THE GAP BETWEEN THE CARNARVON STATION AND HONEYSUCKLE SO WE'LL RETURN WITH THAT PASS IN ABOUT TWO MINUTES. THIS IS APOLLO CONTROL AT 113 HOURS 52 MINUTES.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1135400 (CDT 3:57A) 365/1

PAO THIS IS APOLLO CONTROL. WE'VE JUST
PUT IN A CALL TO THE SPACECRAFT OVER HONEYSUCKLE.
CAP COM APOLLO 7, HOUSTON THROUGH HONEYSUCKLE.
SC ROGER, APOLLO 7, READ YOU.
CAP COM ROG.
SC BILL, WOULD YOU LOG ME ANOTHER 24
CLICKS OF WATER PLEASE?
CAP COM ROGER, ANOTHER 24 CLICKS. THANK YOU.
HEY DONN, HOW YOU FEELING?
SC SAY AGAIN, BILL.
CAP COM HOW YOU FEELING TODAY?
SC OH, PRETTY FAIR.
CAP COM GOOD.
SC I'VE GOT KIND OF A HEAD COLD BUT OTHER
THAN THAT EVERYTHING'S FINE.
CAP COM ROG.
SC JUST SITTING HERE DOING MY DAILY
DOZEN.
CAP COM OH, GOOD.
SC THAT'S MY ONLY CHANCE. THOSE OTHER
GUYS GET UP AND THEY MONOPOLIZE IT.
CAP COM YEAH, I SAW 'EM ON TELEVISION THIS
MORNING.
SC SAY AGAIN?
CAP COM I SAW 'EM USING THE EXERCISER ON TELE-
VISION THIS MORNING.
SC OH, IS THAT RIGHT?
CAP COM ROG. RUBBER NECKING JUST LIKE EVERY-
ONE ELSE.
SC RIGHT.
CAP COM APOLLO 7, HOUSTON ONE MINUTE LOS AT
CARNARVON, AT 14, AH REDSTONE AT 14.
SC ROGER, PUT ME TO ... AROUND FOR ME
... FOR A WHILE.
CAP COM THAT'S A PRETTY GOOD TRICK IF YOU CAN
PULL IT OFF. MIGHT WORK FOR THE OTHER FELLAS THOUGH.
SC AH, ...
PAO THIS IS APOLLO CONTROL AT 114 HOURS
AND WE'VE LOST CONTACT NOW WITH THE SPACECRAFT OVER HONEY-
SUCKLE AND THAT WAS ONE OF OUR MORE LIVELY PASSES AS FAR AS
CONVERSATION WITH DONN EISELE WHO IS THE ONLY CREWMEMBER
WHO'S AWAKE AT THE PRESENT TIME. COMMANDER WALLY SCHIRRA
AND LUNAR MODULE PILOT WALT CUNNINGHAM ARE NOW INTO THEIR
6TH HOUR OF SLEEP PERIOD WHICH BEGAN AT 108 HOURS ELAPSED
TIME AND SCHEDULED TO END IN ABOUT 2 MORE HOURS. YOU HEARD
EISELE REPORT THAT HE HAS CONSUMED 24 CLICKS OF WATER, THAT
FIGURES OUT TO JUST ABOUT 12 OUNCES SINCE HIS LAST REPORT
FROM ONE AND ONE-HALF HOURS AGO. DONN ALSO REPORTED THAT

APOLLO 7 COMMENTARY, 10/16/68, GET: 1135400 (CDT 3:57A) 365/2

PAO HE'S FEELING PRETTY FAIR WITH THE
EXCEPTION OF THE HEADCOLD AND ALSO INDICATED THAT HE GETS
HIS CHANCE ON THE IN-FLIGHT EXERCISER WHILE HIS OTHER TWO
CREWMEMBERS ARE GETTING THEIR SLEEP. WE'LL BE PICKING UP
THE SPACECRAFT AGAIN IN ABOUT 14 MINUTES, 13 MINUTES OVER
THE TRACKING SHIP REDSTONE AT 114 HOURS 02 MINUTES INTO THE
FLIGHT, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET; 1141400 (CDT 4:17A) 366/1

PAO THIS IS APOLLO CONTROL AT 114 HOURS
14 MINUTES. THE SPACECRAFT APOLLO 7 IS NOW ABOUT MIDWAY
THROUGH IT'S NIGHTSIDE PASS AND COMING UP ON THE TRACKING
SHIP REDSTONE. WE'LL LISTEN IN AS THE CAP COM BILL POGUE
PUTS IN A CALL TO THE CREW.

CAP COM APOLLO 7, HOUSTON THROUGH REDSTONE.

SC HOUSTON, APOLLO 7.

CAP COM APOLLO 7, HOUSTON GO.

SC AH, ROG, I WAS JUST LOOKING OVER THIS

FLIGHT PLAN FOR THE EIGHT HOUR ACTIVE PERIOD. LOOKS LIKE
WE'RE PRETTY WELL BOOKED UP. I GUESS ... AND THE BURN IS
TO BE THE EVENT OF THE DAY AND I THINK IF WE GET BEHIND OR
HAVE ANY PROBLEMS WE'LL PROBABLY DROP SOME OF THESE OTHER
THINGS IF WE NEED TO.

CAP COM ROGER. (PAUSE) APOLLO 7, HOUSTON,
ONE MINUTE LOS REDSTONE, BAHAMA AT 31.

SC ROGER.

PAO THIS IS APOLLO CONTROL. THAT COMPLETES
OUR PASS OVER THE REDSTONE. THE SPACECRAFT IS NOW OFF THE
HORIZON AND OUT OF RANGE AND WE'LL BE ACQUIRING AT BAHAMA
IN ABOUT 10 OR 11 MINUTES. THE MISSION CONTINUES TO GO VERY
WELL THROUGHOUT THE NIGHT AND HERE INTO THE MORNING HOURS
AND WE'LL EXPECT ACTIVITY TO PICK UP WITHIN THE NEXT HOUR OR
TWO. BEGINNING IN ABOUT THE NEXT 40 MINUTES, DONN EISELE IS
SCHEDULED TO START POWERING UP THE COMMAND MODULE COMPUTER
AND AT ABOUT 116 HOURS ELAPSED TIME, HIS TWO FELLOW CREWMEN,
WALLY SCHIRRA AND WALT CUNNINGHAM ARE SCHEDULED TO END THEIR
SLEEP PERIOD. THIS IS APOLLO CONTROL AT 114 HOURS 22 MINUTES.

END OF TAPE

PAO THIS IS APOLLO CONTROL AT 114 HOURS, 31 MINUTES. APOLLO 7 SPACECRAFT AT THE PRESENT TIME IS PASSING OVER THE ISTHMUS OF PANAMA AND MOVING UP TOWARD THE BAHAMA TRACKING STATION ACQUISITION. WE'VE BEEN ADVISED THAT THAT ACQUISITION WILL PROBABLY BE DELAYED ABOUT A MINUTE. SO WE'LL STANDBY AND PICK UP THE CALL THROUGH THE CREW PROBABLY ABOUT 1 MINUTE FROM NOW. THE SPACECRAFT IS PRESENTLY IN AN ORBIT WITH APOGEE OF APPROXIMATELY 152 NAUTICAL MILES AND A PERIGEE OF ABOUT 89 NAUTICAL MILES. IT COMPLETES A REVOLUTION ONCE EVERY 89 MINUTES. WE SHOULD BE GETTING THAT CALL TO THE CREW. DON EISELE WHO WAS ON DUTY WHILE WALLY SCHIRRA AND WALT CUNNINGHAM COMPLETED THEIR 8 HOUR SLEEP CYCLES. AND WE EXPECT THAT CALL SHORTLY FROM BILL POGUE WHO IS CAPCOM HERE IN THE MISSION CONTROL CENTER.

CAPCOM APOLLO 7, HOUSTON, THROUGH ANTIGUA.
SC ROGER, HOUSTON, APOLLO 7.
CAPCOM ROGER, DON. I'D LIKE A READOUT ON BAT CHARLIE VOLTAGE.

SC ROGER. ...36 VOLTS.
CAPCOM 36, THANK YOU. ALSO DON, I'VE BEEN TAKING A LOOK AT THE FLIGHT PLAN. AND IT MAY LOOK A BIT CROWDED, BUT WE THINK EVERYTHING COULD BE GOTTEN IN THERE IN THE NORMAL COURSE OF EVENTS IN GETTING READY FOR THE BURN. HOWEVER, WE HAVE LOOKED AT A COUPLE OF THINGS HERE THAT COULD BE DELETED WITHOUT AFFECTING ANYTHING. FIRST OFF, IF YOU START GETTING CROWDED YOU CAN SCRUB THE PHOTOGRAPHY ENTRIES. IT SORT OF GOES WITHOUT SAYING. SECOND, YOU CAN SCRUB THE SCS ATTITUDE REFERENCE CHECK. AND THIRD, DELETE THE P22 EXERCISES ASSOCIATED WITH P52.

SC ROGER.
CAPCOM YOU KNOW IF YOU GET IN A BIND.
SC YEAH, I THINK WE CAN GET THROUGH IT OKAY, BILL. I JUST WANTED TO POINT - WE DO GET BEHIND AND IF WE DO HAVE ANY PROBLEMS WE WILL PROBABLY DROP THEM.

CAPCOM ROGER. THE POINT IS WELL TAKEN.
APOLLO 7, HOUSTON, 1 MINUTE LOS ANTIGUA, CANARY 43.

SC ROGER.
PAO THIS IS APOLLO CONTROL AT 114 HOURS, 39 MINUTES. WE'RE ABOUT TO LOSE CONTACT WITH THAT STATION OVER ANTIGUA. AND WE WILL BE REACQUIRING IN ABOUT 4 MINUTES AT CANARY ISLANDS. WE'LL PICK UP AGAIN OVER CANARY.

END OF TAPE

APOLLO 7 COMMENTARY, L0/16/68, GET: LL45300 CDT 4:54A 368/L

PAO THIS IS APOLLO CONTROL AT LL4 HOURS,
53 MINUTES INTO THE MISSION. WE'VE JUST COMPLETED A PASS
OVER THE CANARY ISLAND STATION AND THERE WAS A SMALL AMOUNT
OF CONVERSATION WITH THE SPACECRAFT ON THAT PASS WHICH WE
WILL NOW PLAY PACK FOR YOU IN ITS ENTIRITY.

CAPCOM APOLLO 7, HOUSTON THROUGH CANARY.

SC ROGER.

CAPCOM GO.

SC INSTEAD OF POWERING UP AT LL5:10 AND DO

A P23 ... CHECK, I THINK I'D JUST AS SOON WAIT AND DO THAT
AT THE TIME WE DO THE START OF HORIZON LANDMARK BUSINESS -
START OF HORIZON NAVIGATION.

CAPCOM ROGER.

SC IN OTHER WORDS, I DON'T SEE ANY POINT IN
POWERING AND MANEUVERING AROUND TO DO ONE LITTLE CHECK.

CAPCOM RIGHT.

SC ... WHEN IT WOULD BE EASIER TO DO THE
SAME THING A LITTLE LATE - CATCH THEM ALL AT THE SAME TIME
PROBABLY..

CAPCOM APOLLO 7, HOUSTON. REGARDING THE POWER
UP AT A LATER TIME JUST BEFORE THE NEW STATE VECTOR IS
AGREEABLE HERE.

SC OKAY BOY.

CAPCOM AND WE'LL CHANGE OUR FLIGHT PLAN ACCORDINGLY.

SC ROGER.

CAPCOM APOLLO 7, HOUSTON. ONE MINUTE LOS CANARY,
WE'LL HAVE ANOTHER MINUTE AT MADRID IF YOU'LL TURN THE
S BAND VOLUME UP. WE CAN HEAR YOU TALK.

SC OKAY.

CAPCOM AT CARNARVON AT L8,

SC ROGER.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1151800 (CDT 5:22A) 369/1

PAO THIS IS APOLLO CONTROL AT 115 HOURS 18 MINUTES INTO THE MISSION. THE SPACECRAFT IS DUE TO BE ACQUIRED SHORTLY BY THE CARNARVON TRACKING STATION AND HERE IN MISSION CONTROL CENTER, ACTIVITY IS BEGINNING TO PICK UP A LITTLE BIT AFTER A VERY QUIET NIGHT. WE'LL BE SHORTLY GETTING READY FOR THE DAYS ACTIVITIES AND ONBOARD THE SPACECRAFT WE WOULD EXPECT THAT DONN EISELE WOULD, WITHIN THE NEXT 25 OR 30 MINUTES, BEGIN POWERING UP THE COMMAND MODULE COMPUTER IN PREPARATION FOR THAT FOURTH SERVICE PROPULSION SYSTEM BURN. AND, CAP COM BILL POGUE NOW HAS JUST PUT IN A CALL TO THE CREW, WE'LL LISTEN IN.

SC HOUSTON, APOLLO 7.
CAP COM APOLLO 7, HOUSTON, GO.
SC ROGER, WOULD YOU LOG ME ANOTHER 30

CLICKS OF WATER?

CAP COM SAY AGAIN THE NUMBER.
SC THREE-ZERO.
CAP COM ROGER, THREE-ZERO.
SC ROG.

CAP COM APOLLO 7, HOUSTON. ONE MINUTE LOS CARNARVON. HONEYSUCKLE AT 26 SO YOU CAN TURN UP YOUR S-BAND VOLUME IN ABOUT ONE MINUTE.

SC ROGER.

PAO THIS IS MISSION CONTROL. WE'VE HAD A MOMENTARY LOSS OF SIGNAL AS THE SPACECRAFT MOVES OUT OF ACQUISITION FROM CARNARVON AND WILL BE REACQUIRING AGAIN SHORTLY OVER HONEYSUCKLE AND WE'LL STAND BY FOR THAT REACQUISITION.

CAP COM APOLLO 7, HOUSTON. REQUEST O2 TANK TWO FANS ON FIVE MINUTES THEN OFF.

SC ROGER, HOUSTON.
CAP COM APOLLO 7, HOUSTON.
SC ROGER HOUSTON, GO.

CAP COM DONN, I'M NOT SURE I'LL HAVE THE FULL TIME ON THIS PASS BECAUSE OF THE KEYHOLE. I'LL HAVE A BLOCK DATA FOR YOU AT TEXAS AND WE'LL HAVE TEXAS ON THE HOUR.

SC ROGER.

CAP COM APOLLO 7, HOUSTON, COMING UP ON LOS HONEYSUCKLE. YOU CAN GET THE FANS BACK OFF IN ABOUT ONE-HALF A MINUTE.

SC ROGER.

PAO THIS IS APOLLO CONTROL. WE'VE HAD LOSS OF SIGNAL NOW OF THE SPACECRAFT OVER HONEYSUCKLE. WE'LL BE ACQUIRING THE STATION AT CORPUS CHRISTI IN ABOUT 26 MINUTES AT 115 HOURS 35 MINUTES INTO THE MISSION, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1160000 (CDT 6:03A) 370/1

PAO THIS IS MISSION CONTROL 116 HOURS INTO THE FLIGHT OF APOLLO 7. THE SPACECRAFT IS PRESENTLY APPROACHING THE TEXAS TRACKING STATION AT CORPUS CHRISTI. WILL BE COMING WITHIN RANGE OF THAT STATION AND SIMULTANEOUSLY WILL BE COMING OUT OF A NIGHTSIDE PASS AND INTO DAYLIGHT. WE'LL BE ACQUIRING THE SPACECRAFT SHORTLY AND WE WOULD EXPECT THAT WALLY SCHIRRA AND WALT CUNNINGHAM WILL ALSO BE ENDING THEIR SLEEP PERIODS SHORTLY HAVING GOTTEN ABOUT EIGHT HOURS OF SLEEP THIS TIME. THEY'RE SCHEDULED TO BE AWAKING SHORTLY IF THEY ARE NOT ALREADY UP. WE'LL STAND BY NOW AS CAP COM BILL POGUE PUTS IN A CALL TO THE CREW.

CAP COM APOLLO 7, HOUSTON THROUGH TEXAS.

SC ROGER.

CAP COM ROG, I HAVE A BLOCK DATA UPDATE WHEN YOU'RE READY TO COPY.

SC STAND BY, BILL. (PAUSE) GO AHEAD WITH THE UPDATE, BILL.

CAP COM ROG, BLOCK DATA, 075 DASH ONE ALPHA + 311 - 0650 117 24 04 3443 076 DASH 1 ALPHA + 302 - 0650 11900 11 3592.

SC ROGER.

CAP COM 077 DASH 1 ALPHA + 238, - 0630, 120 33 36 2888, 078 DASH 4 ALPHA + 310, - 1600 123 17 25 3410, 079 DASH 4 ALPHA + 307, - 1600 124 53 43 3520, 080 DASH 4 ALPHA + 263 - 1611 126 27 32 3137. READBACK.

SC ROGER. 075 DASH 1 ALPHA + 311 - 0650 177 24 04 3443, 076 DASH 1 ALPHA, I'LL HAVE TO GET THE ... AGAIN FROM YOU, THE TIME WAS 11900 11 3592, 075 DASH 1 ALPHA + 238 - 0630 120 33 36 2888, 078 DASH 4 ALPHA + 310 - 1600 123 17 25 3410, 079 DASH 4 ALPHA + 307 - 1600 124 53 43 3520, 080 DASH 4 ALPHA + 263 - 1611 126 27 32 3137.

CAP COM ROGER. ON THE FIRST BLOCK THE TIME WAS 117 + 24 + 04.

SC ROGER, I GOT THAT.

CAP COM ROG, AND ON THE NEXT BLOCK THE LAT AND LONG ARE + 302 - 0650.

SC OKAY + 302 -0650.

CAP COM ROG, AND ON THE 4TH BLOCK, 078 DASH 4 ALPHA, THE LONG IS -1600.

SC ROGER, -1600.

CAP COM ROG, READBACK IS CORRECT.

SC OKAY THEN.

CAP COM GO. APOLLO 7, HOUSTON, YOU'RE GO FOR 92 DASH ONE.

SC ROGER, GO FOR 92 ONE. (PAUSE)

HOUSTON, APOLLO 7.

CAP COM APOLLO 7, HOUSTON GO.

SC (GARBLED) LOG ME ONE ...

APOLLO 7 COMMENTARY, 10/16/68, GET: 1160000 (CDT 6:03A) 370/2

CAP COM WOULD YOU SAY AGAIN PLEASE?
SC ROGER, ABOUT HALF HOUR AGO I TOOK ONE
LOBO PILL, (GARBLED).
CAP COM APOLLO 7, HOUSTON. I'M HAVING DIFFI-
CULTY READING YOU.
SC ROGER, UNDERSTAND.
CAP COM NOW YOU'RE VERY CLEAR, WOULD YOU SAY
AGAIN PLEASE?
SC ROGER, ABOUT 30 MINUTES AGO I TOOK ONE
LOBO PILL, WOULD YOU PLEASE LOG THAT?
CAP COM ROG, THANK YOU.
PAO THIS IS APOLLO CONTROL. WE'VE HAD
LOSS OF SIGNAL NOW WITH THE SPACECRAFT MOVING OUT OVER THE
ATLANTIC OCEAN TOWARD THE CANARY ISLANDS. DURING THAT PASS
YOU HEARD CAP COM BILL POGUE PASS UP THE GO TO THE SPACE-
CRAFT FOR ANOTHER DAYS FLIGHT THROUGH REV. 92 AND DON EISELE
REPORTED THAT HE HAD TAKEN ANOTHER 30 CLICKS OF WATER WHICH
MAKES HIS TOTAL NOW SOMETHING ON THE ORDER OF ABOUT 20 OUN-
CES DURING THE PAST SEVERAL HOURS. WE'LL BE ACQUIRING THE
STATION AT THE CANARY ISLANDS, ACQUISITION COMING UP AT
ELAPSED TIME OF 116 HOURS 17 MINUTES, THAT WILL BE ABOUT
2 MINUTES FROM NOW AND WE'LL PICK UP THE SPACECRAFT AGAIN
AT THAT POINT. AT 116 HOURS 16 MINUTES THIS IS APOLLO
CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1161800 (CDT 6:20) 371/1

PAO THIS IS APOLLO CONTROL. THE SPACECRAFT
WILL SHORTLY BE COMING INTO ACQUISITION AT CANARY ISLANDS,
CAPCOM BILL POGUE JUST PUT IN A CALL. WE'LL STANDBY FOR ANY
CONVERSATION FROM THE CREW.

CAPCOM APOLLO 7, HOUSTON, 1 MINUTE LOS CANARY,
CARNARVON AT 52.

SC ROGER.

PAO THIS IS MISSION CONTROL. THE SPACECRAFT
IS NOW GONE OUT OF RANGE OF THE CANARY ISLAND TRACKING STA-
TION. AND WE WILL BE PICKING THE SPACECRAFT UP AGAIN IN
ABOUT - ABOUT 26 MINUTES FROM NOW AT 116 HOURS, 52 MINUTES,
GROUND ELAPSED TIME OVER THE CANARVON, AUSTRALIA TRACKING
STATION. AT 116 HOURS, 25 MINUTES, THIS IS APOLLO CONTROL.

END OF TAPE

PAO THIS IS APOLLO CONTROL AT 116 HOURS, 45 MINUTES INTO THE FLIGHT OF APOLLO 7. AT THE PRESENT TIME HERE IN THE MISSION CONTROL CENTER, WE ARE IN THE MIDST OF A SHIFT CHANGE. THE PRIME FLIGHT DIRECTOR, GLENN LUNNEY, IS IN THE CONTROL CENTER AND WILL SHORTLY BE RELIEVING FLIGHT DIRECTOR, GERRY GRIFFIN. ALSO, OUR CAPCOM COMING UP WILL BE JACK SWIGERT WHO WILL BE REPLACING BILL POGUE AT THE CAPCOM POSITION. DURING THE NIGHT AND INTO THE EARLY MORNING, THE APOLLO 7 MISSION CONTINUED TO PROGRESS VERY WELL. IT WAS ALMOST A QUIET AND UNEVENTFUL PERIOD. A SHORT TIME AGO, GERRY GRIFFIN PULLED THE FLIGHT CONTROLLERS HERE IN THE CENTER AND PASSED ALONG A GOAL TO THE CREW FOR 92-1, AN ADDITIONAL 16 REVOLUTIONS CARRYING THEM THROUGH AN ADDITIONAL DAY. THE MAJOR ACTIVITY DURING THE EVENING HAD THE MAJOR COMMANDER WALLY SCHIRRA AND LM PILOT WALT CUNNINGHAM SLEEPING. DON EISELE WAS TENDING THE STORE AND PASSED UP THE FLIGHT UPDATE WHICH WILL INCLUDE A TV PASS WITH ACQUISITION EXPECTED AT ABOUT 9:09 A.M. THIS MORNING. FROM THE CORPUS CHRISTI SITE, THE CREW HAS BEEN INSTRUCTED TO TURN ON THE TELEVISION SOME 2 MINUTES FROM THAT TO GIVE THINGS TIME TO WARM UP. A LITTLE LATER ON AT - ABOUT 120 HOURS, 43 MINUTES ELAPSED TIME, WE HAVE THE FOURTH SPS SERVICE PROPULSION SYSTEM BURN SCHEDULED. THIS WILL BE A MINIMUM IMPULSE BURN WITH AN ANTICIPATED DURATION OF ABOUT 1/2 SECOND, IMPARTING ABOUT 15 FEET PER SECOND VELOCITY - ADDITIONAL VELOCITY TO THE SPACECRAFT. AND SHORTLY THE CREW WILL BEGIN POWERING UP THE COMMAND MODULE COMPUTER. AND THEY ARE GETTING SET UP FOR THAT BURN. WE HAVEN'T YET HEARD FROM WALLY SCHIRRA AND WALT CUNNINGHAM. THEY WERE SCHEDULED TO BE WAKING UP A SHORT WHILE AGO. AND WE ANTICIPATE WE WILL HEAR FROM THEM DURING THE NEXT SPACECRAFT ACQUISITION ABOUT 5 MINUTES FROM NOW AND WHEN ACQUIRE AT CARNARVON. DON EISELE REPORTED THAT HE WAS DOING - WELL. HE SAID TO REPORT THAT HE FELT PRETTY FAIR. HE SAID HE STILL HAD A HEAD COLD, BUT OTHERWISE WAS FEELING FINE AND WAS DOING HIS DAILY DOZEN IN EXERCISE ON THE INFLIGHT EXERCISER. THE CREW ALL APPEARED TO HAVE GOTTEN A GOOD NIGHT'S SLEEP. I ANTICIPATE THAT SCHIRRA AND CUNNINGHAM GOT AT LEAST 8 HOURS AND THE SAME FOR EISELE. AS FAR AS THE WEATHER GOES, WE ARE CONTINUING TO WATCH TROPICAL STORM GLADYS NEAR THE WESTERN TIP OF CUBA. OTHERWISE, THE WEATHER AND ALL OF THE OTHER RECOVERY AREAS - ALL RECOVERY AREAS AND PREMATURE THROUGHOUT THE WORLD APPEARS TO BE PRETTY GOOD AT THIS POINT. WE WILL BE ACQUIRING SPACECRAFT NOW OVER CARNARVON COMING UP AT 116 HOURS, 52 MINUTES, ELAPSED TIME. AT 116 HOURS, 48 MINUTES, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1165500 (CDT 6:58A) 373/1

PAO THIS IS APOLLO CONTROL HOUSTON. I'M HAVING A LITTLE TROUBLE GETTING THE PLUG IN THE RIGHT HOLE. AT 116 HOURS 55 MINUTES INTO THE FLIGHT, THE CREW SEEMS TO BE WAKING UP OVER CARNARVON. WE HAVE THIS CONVERSATION GOING ON.

CAP COM APOLLO 7, HOUSTON THROUGH CARNARVON.
APOLLO 7, HOUSTON THROUGH CARNARVON.

SC GO AHEAD HOUSTON.

CAP COM GOOD MORNING, DONN, HOW ARE YOU THIS MORNING?

SC OH, JUST FINE JACK EXCEPT (GARBLED).

CAP COM ROGER, DONN. WOULD LIKE TO GET A BATTERY C VOLTAGE READOUT HERE AT CARNARVON.

SC ROGER, BATTERY C IS SHOWING 36.5 AND GOOD MORNING, JACK.

CAP COM GOOD MORNING, WALT, AND HOW ARE YOU?

SC FINE.

CAP COM AND, WE'RE GOING TO BE SENDING YOU A STATE VECTOR AND TARGET LOAD OVER TEXAS AND I'LL HAVE THE MANEUVER PAD AND NAV CHECK TO PASS UP TO YOU.

SC ROGER. AT THE SAME TIME? ROGER, AT THE SAME TIME?

CAP COM ROG. AND ONE OTHER THING I WANTED TO DISCUSS WITH YOU HERE AT THIS TIME IS THE TV WENT OVER SO WELL YESTERDAY, WOULD LIKE TO KNOW IF YOU COULD SAVE ONE OF YOUR BREAKFAST PACKAGES TO DEMONSTRATE EATING ON TELEVISION THIS MORNING?

SC WE'LL GIVE THEM SOMETHING INTERESTING BUT WE PROBABLY WILL MOSTLY BE THROUGH BREAKFAST BY THEN. IF WE HAVE ANY FOOD LEFT, WE WILL EAT IT FOR THE AUDIENCE.

CAP COM OKAY, WOULD APPRECIATE IT IF YOU COULD DO IT.

SC WE'RE STARTING TO EAT OUR BREAKFAST NOW JACK AND WE'RE NOT GOING TO WANT TO SCHEDULE THINGS AROUND THAT TV CAMERA.

CAP COM OKAY, UNDERSTAND.

SC WHAT'S THE NEWS THIS MORNING, JACK?

CAP COM I'M GETTING IT SUMMARIZED NOW. WILL BE PASSING IT UP TO YOU IN A LITTLE BIT. WE'LL PICK UP HONEYSUCKLE HERE, WALT, AT 11700, YOU WANT TO TURN UP YOUR S-BAND.

SC 11700 TURN UP THE S-BAND.

CAP COM ROGER. APOLLO 7, HOUSTON. LOOKS LIKE YOUR PRIMARY EVAPORATOR IS DRYING OUT AGAIN.

SC YOU KNOW THAT THING HAS BEEN WORKING FINE ALL NIGHT LONG UNTIL YOU GUYS CAME ON.

CAP COM MAYBE IT'S ME?

SC THAT STARTED DOWN DURING THIS PASS

APOLLO 7 COMMENTARY, 10/16/68, GET: 1165500 (CDT 06:58) 373/

SC DIDN'T IT?
SC JACK, ABOUT THAT, WALT JUST CAME ON,
TOO.
CAPCOM GOOD MORNING WALLY. COULD WE GET YOU
TO SET DOWN THE PRIMARY EVAPORATOR TO GO TO DECREASE ON THE
BACK PRESSURE SWITCH AND DO NOT RESERVICE IT AT THIS TIME?
SC YOU WANT ANOTHER INCREASE, DON'T YOU?
I'M SHUTTING IT DOWN NOW.
CAPCOM EXCUSE ME. INCREASE ON THE BACK PRES-
SURE SWITCH.
SC THAT COULD WORK. WHENEVER IT DRIED
OUT, I GO AHEAD AND CLOSE IT UP. YOU DON'T WANT IT RESER-
VICED NOW?
CAPCOM THAT IS AFFIRMATIVE.
CAPCOM WHAT WE WOULD LIKE TO DO IS HAVE THE
RESERVICE TAKE PLACE 117 + 15.
SC ROGER, ED. IS THAT TO BE OVER A STA-
TION OR DO YOU JUST WANT ME TO WRITE IT DOWN?
CAPCOM YOU CAN DO IT ON YOUR OWN.
SC OKAY, I'LL DO IT AT 11715.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1173305 (CDT 7:37A) 374/1

PAO THIS IS APOLLO CONTROL HOUSTON, 117 HOURS, 33 MINUTES INTO THE FLIGHT. AMONG OTHER THINGS WE HAVE PLANNED TODAY, IS THE MINIMUM IMPULSE BURN OF THE SERVICE PROPULSION ENGINE. IT WILL BE ON THE ORDER OF ONE-HALF OF A SECOND, JUST A BLIP. THE DELTA-V IS ESTIMATED AT AROUND 14 - 15 FEET PER SECOND. THE BURN WILL BE DONE IN PLANE AND IT WILL HAVE A VERY, VERY SLIGHT EFFECT ON THE APOGEE/PERIGEE, THE RESULTING NUMBER SHOULD BE SOMETHING LIKE 94 BY 160. HERE'S THE CONVERSATION THAT'S GOING ON WITH THE CREW BY GUAYMAS.

CAPCOM APOLLO 7, HOUSTON THROUGH GUAYMAS.

SC ROGER, READY TO COPY THAT DATA.

CAPCOM OKAY, THE MANEUVER PAD: SPS4, THE MINIMUM IMPULSE, 12043, ALL BALL PLUS 00129 MINUS ALL BALL MINUS ALL BALL 1563 PLUS 09010007829705 MINUS 085 MINUS 055, BURN TIME 000421161321120000000 MINUS 3103 PLUS 096341417, ROLL, PITCH, AND YAW ARE ALL BALLS. REMARKS, HEADS-UP, SES, POSIGRADE, THE SEXTANT STAR NOT VISIBLE AFTER 120 PLUS 20 PLUS 00.

SC ROGER, JACK, NICE READ ON THAT. READ BACK AS FOLLOWS: SPS4 12043, 00129 MINUS ALL BALLS MINUS ALL BALLS, 1563 PLUS 09010007829705 MINUS 085 MINUS 055, 000421161321120, 2 BALLS, 4 BALLS MINUS 3103 PLUS 096341417, ALL BALLS ON THE ATTITUDE, HEADS-UP, SES POSIGRADE, THE SEXTANT STAR NOT VISIBLE AFTER 120 PLUS 20, OVER.

CAPCOM THAT IS AFFIRMATIVE. I HAVE THE MORNING NEWS FOR YOU.

SC GO AHEAD.

CAPCOM APOLLO 7, BEFORE THAT, COULD WE GET YOU TO GO TO ACCEPT, SO WE CAN SEND UP YOUR TARGET LOAD AND STATE VECTOR.

SC ROGER, WE'RE DRINKING OUR MORNING COFFEE.

CAPCOM ROGER, THE SUPREME COURT ACTS OF YESTERDAY. NOW ASSURES THAT ALL 50 STATES WILL HAVE 3 CANDIDATES TO PICK FROM FOR THE NOVEMBER ELECTION. THE HEADLINES THIS MORNING SAYS, "APOLLO 7 SAILS ON," AND THERE IS A PICTURE OF HARRIET EISELE WATCHING THE TV PASS FROM THE VIEWING ROOM HERE AT MCC. AT THE OLYMPICS, AL HARTER BECAME THE FIRST ATHLETE IN HISTORY TO WIN A FOURTH GOLD MEDAL. HE HAS WON THE DISCUS EVENT, AND ENTERED IN THE OLYMPICS SINCE 1966 AND THAT'S ABOUT IT FROM YOUR FRIENDLY NEWSCASTER.

SC THANK YOU JACK, I APPRECIATE THAT.

CAPCOM ROGER.

SC IT SEEMS LIKE MR. HERTER IS A VERY GOOD ATHLETE.

CAPCOM HE SURE IS. APOLLO 7, HOUSTON.

SC GO AHEAD JACK.

CAPCOM ROGER, GUAYMAS HAD A VISUAL SITING OF AS YOU PASSED OVER.

SC GOOD, WE HAVE A PICTURE, WE HAVE A COUPLE

AS OF THEM.

APOLLO 7 COMMENTARY, 10/16/68, GET: 1173305 (CDT 7:37A) 374/2

CAPCOM
FINISHED OUR UPDATE,

SC
CAPCOM
70 DEGREES YAW.

ROGER. APOLLO 7, HOUSTON. WE HAVE
THE COMPUTER IS YOURS.

THANK YOU, JACK.

APOLLO 7, HOUSTON, WE'RE SHOWING A

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68. GET: 1174300 (CDT 7:47A) 375/1

CAPCOM APOLLO 7, HOUSTON, 30 SECONDS LOS
BERMUDA, CANARIES AT 117 PLUS 51.

SC ROGER.

PAO THIS IS APOLLO CONTROL HOUSTON AT LL7
HOURS AND 50 MINUTES. I'M NOT SURE IT WENT OUT OVER THE LOOP,
BUT WE GOT A REPORT IN THE COURSE OF THAT PASS FROM OUR
CORPUS CHRISTI STATION THAT THE TELEVISION CONVERTER, A
VITAL INSTRUMENT THAT CONVERTS THE SIGNAL RECEIVED FROM THE
SPACECRAFT TO A SEEABLE IMAGE, IS DOWN. IT'S IN A RED
CONDITION, AND RIGHT NOW THEY'RE ESTIMATING IT WILL TAKE
SEVERAL - 13 30 IS THE ESTIMATE IN GET, AND WE'RE SHOWING
12 HOURS 54 MINUTES. THAT'S ABOUT A - SOMETHING ON THE
ORDER OF 40 MINUTES TO GET IT FIXED. THEY ARE FEVERISHLY
WORKING AND TRYING TO FIX IT COMING UP ON THIS NEXT PASS,
WHICH IS PROGRAMMED AS THE TELEVISION PASS, AND OF COURSE
IT'S FROM CORPUS THAT WE'VE SEEN SUCH HIGH QUALITY PICTURES
OVER THE LAST TWO DAYS. WE'LL WATCH THIS VERY CLOSELY AND
TRY TO KEEP YOU INFORMED. TO RECAP, THE CONVERTER AT THE
TEXAS STATION IS DOWN, IT IS IN A RED CONDITION, AND
TECHNICIANS THERE ARE WORKING FEVERISHLY TO GET IT IN SHAPE
TO RECEIVE THE TELEVISION PASS ABOUT AN HOUR AND A HALF
FROM NOW. THEIR CURRENT ESTIMATE IS THAT THE SET - THE
CONVERTER SHOULD BE IN A GO CONFIGURATION IN ABOUT 35 MINUTES.
AT 117 HOURS AND 52 MINUTES INTO THE MISSION THIS IS APOLLO
CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1175420 (CDT 07:59A) 376/1

PAO THIS IS APOLLO CONTROL HOUSTON 117 HOURS 54 MINUTES INTO THE FLIGHT. AND AGAIN THIS MORNING, WALLY SCHIRRA NOTES THAT HE IS GETTING A SLIGHT PITCH RATE, A TORQUING EFFECT, IF YOU WILL, FROM THE SPACECRAFT WITHOUT - HANDS OFF THE CONTROLS, HE NOTES SOME UNUSUAL, VERY SLIGHT, BUT UNEXPLAINABLE MOMENTS COMING INTO THE VEHICLE, JUST AS HE REPORTED YESTERDAY AFTERNOON. IT IS WORTH NOTING THAT THE SPACECRAFT IS AT PERIGEE. IT IS RIGHT OVER THE CANARY ISLANDS, JUST SOUTH OF THE CANARY ISLANDS. HERE IS HOW THE CONVERSATION IS GOING.

CAPCOM APOLLO 7, HOUSTON THROUGH THE CANARIES, STANDING BY.

SC ROGER, JACK. HOW COME WE DON'T HAVE OUR TAPE RUNNING?

CAPCOM STAND BY.

SC JACK, WHILE YOU ARE THERE, OBSERVE OUR PITCH RATE AT THIS TIME.

CAPCOM OKAY, STAND BY. I DON'T HAVE THAT DISPLAY CALLUP, WALLY. JUST A MINUTE.

SC THIS IS ONE OF THOSE FREE PITCH RATES AGAIN.

CAPCOM ROGER.

SC I'M AFRAID WE ARE ALL CONVINCED THAT THIS MACHINE DOES NOT WANT TO FLY X-AXIS VERTICAL, EITHER DOWN OR UP.

CAPCOM COPY THAT.

SC AND THAT'S ONLY BECAUSE OF THIS GIMBAL LOCKS IN ONCE IN A WHILE WITHOUT EVEN SUSPECTING IT, OR GETTING OUT OF A RAPID CHANGE OF ATTITUDE. I THINK YOU CAN SEE OUR PITCH RATE WILL START DECREASING, IT'S IN 4/10 OF A DEGREE PER SECOND AND NO PITCH IN.

CAPCOM OKAY, I'M WATCHING IT NOW.

SC ALL MY CHANNELS ARE OFF. NOW SHOULD I GO TO - YOU WANT GET ON NUMBER 1 BALL, IS THAT WHAT IT IS?

CAPCOM AFFIRMATIVE.

SC LOCATE 1620, YOU CAN WATCH THAT.

CAPCOM OKAY.

SC (GARBLE) PITCH RATE (GARBLE).

CAPCOM RIGHT. I CAN SEE THAT.

SC AND I DIDN'T DO A THING TO IT. IT'S NOT TRANSFERRING TO ANOTHER AXIS, THAT'S ON ANOTHER POINT.

CAPCOM OKAY, COPY THAT.

SC I COULD HAVE BLOWN A LOT OF FUEL -

CAPCOM ROGER, COPY.

SC BUT IT WASN'T WORTHWHILE THAT WE EXPLORE THIS ONE ON THIS MISSION. I'M GETTING PITCH TOWARDS 0 PER SECOND.

CAPCOM WALLY, YOUR X-AXIS NOW IS POINTED

APOLLO 7 COMMENTARY, 10/16/68, GET: 1175420 (CDT 07:59A) 376/2

CAPCOM HEADS DOWN TOWARD THE EARTH?
SC GENERALLY TOWARDS THE EARTH, THAT'S
RIGHT. WE ARE - THE S-IV - THE BIG ENGINE IS AHEAD OF US
AND OUR PLUS AXIS ARE TRAILING. YOU GOT THE ANGLES DOWN.
NOW YOU NOTICE THE RATES ARE ALMOST STOPPED AND I HAVEN'T
DONE ANYTHING TO THE SPACECRAFT.
CAPCOM OKAY.
SC CAN YOU GIVE US A CHART UPDATE WHEN
YOU GET A CHANCE, JACK?
CAPCOM ROGER. WALT, I HAVE THE CHART UPDATE.
SC GO AHEAD.
CAPCOM OKAY, FOR REV 74, THE TIME OF THE NODE
117 + 23 + 02 - LONGITUDE 143.1 DEGREES WEST, RIGHT ASCEN-
SION OF 04 + 34.
SC JACK DOESN'T KNOW THIS, 0 YAW RATE,
0 PITCH RATE.
SC - MAGAZINE S. GROUND FORMATION OVER
THE WESTERN END OF AFRICA.
SC YOU READ, JACK?
CAPCOM ROGER, WALT. WE ARE ABOUT 15 SECONDS
LOS CANARIES. TANANARIVE AT 118 + 11.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1181100 (CDT 8:15A) 377/1

PAO THIS IS APOLLO CONTROL, 118 HOURS, 11 MINUTES INTO THE FLIGHT. EARLIER WE MENTIONED THE CONVERTER PROBLEM AT OUR CORPUS CHRISTI STATION. CORPUS NOW ESTIMATES THE CONVERTER WILL BE UP AND RUNNING IN ABOUT 20 MINUTES. IN OTHER WORDS TO SUPPORT THE PASS. WE ARE ABOUT TO CONTACT THROUGH TANANARIVE; THERE GOES THE FIRST CALL.

SC THIS IS APOLLO 7, AND WE READ YOU.
CAPCOM ROGER. WALLY, WE HAVE BEEN DOING SOME - LOOKING INTO THIS TORQUE BUSINESS; THERE HAVE BEEN SOME CALCULATIONS MADE THAT SHOW THAT THERE IS A 5 TENTHS OF A FOOT POUND TORQUE POSSIBLE GOING THROUGH PERIGEE WHEN YOUR BROADSIDE - GOING THROUGH PERIGEE BROADSIDE TO THE DIRECTION OF FLIGHT. THIS PRODUCES A POSSIBLE RATE OF .03 DEGREES PER SECOND IN PITCH DUE TO DRAG. I WOULD LIKE TO ASK YOU IF THIS TORQUING RATE THAT YOU HAVE EXPERIENCED EXISTS THROUGHOUT A COMPLETE REVOLUTION OR IS IT MORE PRONOUNCED - NOTICEABLE AT PERIGEE ONLY.

SC WE HAVE (GARBLE) AT PERIGEE; WE WERE THINKING HERE LAST NIGHT PERHAPS (GARBLE) ENGINE ON THE LOWER RIGHT LOST PERIGEE, TORQUING RIGHT BACK - WAS MOST OF THE TIME.

CAPCOM OKAY, COPY. WE DO HAVE SOME MORE INFORMATION ON YOUR SECONDARY SWITCH OVER.

SC GO.
CAPCOM OKAY, OUR BEST DATA FOR YOUR ONBOARD GAGE READINGS FOR SECONDARY TANKS SWITCH OVERS ARE AS FOLLOWS; ARE YOU READY TO COPY?

SC GO.
CAPCOM OKAY. QUAD A 46 PERCENT. QUAD B SWITCH WITH TANK QUAD D, QUAD C, 54 PERCENT, QUAD D 49 PERCENT; AND AT PRESENT QUAD C IS THE CLOSEST TO SWITCH OVER; THE PREDICTED SWITCH OVER TIME SHOULD BE APPROXIMATELY 140 HOURS GET.

SC ROGER; AND I NEED A READING FOR 46, TO GO TO D, 54 AND 49 PERCENT; QUAD INDICATING THAT (GARBLE); OVER..

CAPCOM THAT'S AFFIRMATIVE 7.
SC THANK YOU. HEY, JACK, HAS THAT CORRELATION BETWEEN ONBOARD READINGS AND ACTUAL QUANTITIES BEEN FAIRLY CONSISTENT (GARBLE)?

CAPCOM THAT'S AFFIRMATIVE WALT. WE THINK THE NUMBERS WE HAVE PASSED YOU ARE PRETTY GOOD NUMBERS RIGHT NOW.

SC THANK YOU. (GARBLE) WILL BE COMPLETE IN 8 SECONDS.
CAPCOM APOLLO 7, ABOUT 20 SECONDS LOS TANANARIVE; CARNARVON AT 118.26.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1181100 (CDT 8:15A) 377/1

PAO THIS IS APOLLO CONTROL, 118 HOURS, 11 MINUTES INTO THE FLIGHT. EARLIER WE MENTIONED THE CONVERTER PROBLEM AT OUR CORPUS CHRISTI STATION. CORPUS NOW ESTIMATES THE CONVERTER WILL BE UP AND RUNNING IN ABOUT 20 MINUTES. IN OTHER WORDS TO SUPPORT THE PASS. WE ARE ABOUT TO CONTACT THROUGH TANANARIVE; THERE GOES THE FIRST CALL.

SC THIS IS APOLLO 7, AND WE READ YOU.

CAPCOM ROGER. WALLY, WE HAVE BEEN DOING SOME - LOOKING INTO THIS TORQUE BUSINESS; THERE HAVE BEEN SOME CALCULATIONS MADE THAT SHOW THAT THERE IS A 5 TENTHS OF A FOOT POUND TORQUE POSSIBLE GOING THROUGH PERIGEE WHEN YOUR BROADSIDE - GOING THROUGH PERIGEE BROADSIDE TO THE DIRECTION OF FLIGHT. THIS PRODUCES A POSSIBLE RATE OF .03 DEGREES PER SECOND IN PITCH DUE TO DRAG. I WOULD LIKE TO ASK YOU IF THIS TORQUING RATE THAT YOU HAVE EXPERIENCED EXISTS THROUGHOUT A COMPLETE REVOLUTION OR IS IT MORE PRONOUNCED - NOTICEABLE AT PERIGEE ONLY.

SC WE HAVE (GARBLE) AT PERIGEE; WE WERE THINKING HERE LAST NIGHT PERHAPS (GARBLE) ENGINE ON THE LOWER RIGHT LOST PERIGEE, TORQUING RIGHT BACK - WAS MOST OF THE TIME.

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SC GO.

CAPCOM OKAY, OUR BEST DATA FOR YOUR ONBOARD GAGE READINGS FOR SECONDARY TANKS SWITCH OVERS ARE AS FOLLOWS; ARE YOU READY TO COPY?

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SC ROGER; AND I NEED A READING FOR 46, TO GO TO D, 54 AND 49 PERCENT; QUAD INDICATING THAT (GARBLE); OVER..

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SC THANK YOU. (GARBLE) WILL BE COMPLETE IN 8 SECONDS.

CAPCOM APOLLO 7, ABOUT 20 SECONDS LOS TANANARIVE; CARNARVON AT 118.26.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1181100 (CDT 8:15A) 377/1

PAO THIS IS APOLLO CONTROL, 118 HOURS, 11 MINUTES INTO THE FLIGHT. EARLIER WE MENTIONED THE CONVERTER PROBLEM AT OUR CORPUS CHRISTI STATION. CORPUS NOW ESTIMATES THE CONVERTER WILL BE UP AND RUNNING IN ABOUT 20 MINUTES. IN OTHER WORDS TO SUPPORT THE PASS. WE ARE ABOUT TO CONTACT THROUGH TANANARIVE; THERE GOES THE FIRST CALL.

SC THIS IS APOLLO 7, AND WE READ YOU.

CAPCOM ROGER. WALLY, WE HAVE BEEN DOING SOME - LOOKING INTO THIS TORQUE BUSINESS; THERE HAVE BEEN SOME CALCULATIONS MADE THAT SHOW THAT THERE IS A 5 TENTHS OF A FOOT POUND TORQUE POSSIBLE GOING THROUGH PERIGEE WHEN YOUR BROADSIDE - GOING THROUGH PERIGEE BROADSIDE TO THE DIRECTION OF FLIGHT. THIS PRODUCES A POSSIBLE RATE OF .03 DEGREES PER SECOND IN PITCH DUE TO DRAG. I WOULD LIKE TO ASK YOU IF THIS TORQUING RATE THAT YOU HAVE EXPERIENCED EXISTS THROUGHOUT A COMPLETE REVOLUTION OR IS IT MORE PRONOUNCED - NOTICEABLE AT PERIGEE ONLY.

SC WE HAVE (GARBLE) AT PERIGEE; WE WERE THINKING HERE LAST NIGHT PERHAPS (GARBLE) ENGINE ON THE LOWER RIGHT LOST PERIGEE, TORQUING RIGHT BACK - WAS MOST OF THE TIME.

CAPCOM OKAY, COPY. WE DO HAVE SOME MORE INFORMATION ON YOUR SECONDARY SWITCH OVER.

SC GO.

CAPCOM OKAY, OUR BEST DATA FOR YOUR ONBOARD GAGE READINGS FOR SECONDARY TANKS SWITCH OVERS ARE AS FOLLOWS; ARE YOU READY TO COPY?

SC GO.

CAPCOM OKAY. QUAD A 46 PERCENT. QUAD B SWITCH WITH TANK QUAD D, QUAD C, 54 PERCENT, QUAD D 49 PERCENT; AND AT PRESENT QUAD C IS THE CLOSEST TO SWITCH OVER; THE PREDICTED SWITCH OVER TIME SHOULD BE APPROXIMATELY 140 HOURS GET.

SC ROGER; AND I NEED A READING FOR 46, TO GO TO D, 54 AND 49 PERCENT; QUAD INDICATING THAT (GARBLE); OVER..

CAPCOM THAT'S AFFIRMATIVE 7.

SC THANK YOU. HEY, JACK, HAS THAT CORRELATION BETWEEN ONBOARD READINGS AND ACTUAL QUANTITIES BEEN FAIRLY CONSISTENT (GARBLE)?

CAPCOM THAT'S AFFIRMATIVE WALT. WE THINK THE NUMBERS WE HAVE PASSED YOU ARE PRETTY GOOD NUMBERS RIGHT NOW.

SC THANK YOU. (GARBLE) WILL BE COMPLETE IN 8 SECONDS.

CAPCOM APOLLO 7, ABOUT 20 SECONDS LOS TANANARIVE; CARNARVON AT 118.26.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1182725 (CDT 8:37A) 378/1

PAO THIS IS APOLLO CONTROL HOUSTON 118 HOURS 27 MINUTES INTO THE FLIGHT. WE HAVE ACQUIRED VIA CARNARVON READING DATA OUT OF THE SPACECRAFT THROUGH THAT STATION RIGHT NOW. THE FLIGHT PLAN ACTIVITIES FOR THE NEXT HOUR OR SO LOOKS LIKE THIS: THEY'LL DO AN INERTIAL MEASURING UNIT AND REALINEMENT - THAT'S A PLATFORM REALINEMENT - BETWEEN CARNARVON AND HAWAII; THEY'LL RUN THROUGH THEIR MINIMUM IMPULSE THRUSTER PROGRAM, RUN IT THROUGH THE COMPUTER; THEY ARE TO TAKE SOME LAND PHOTOGRAPHY FROM THE NEW MEXICO AREA, OF THE NEW MEXICO AREA AND THE BAHAMAS; AND OUR FIRST TELEVISION IS SCHEDULED AT TEXAS ACQUISITION, WHICH WILL BE 119 HOURS AND 6 MINUTES, AND OUR CHARTS SHOW THAT WE SHOULD LOSE SIGNAL VIA MILA, EAST OF MILA, AT - OR MERRITT ISLAND, AT 119 HOURS 17 MINUTES. IMMEDIATELY OUT OVER THE EASTERN EDGE OF BERMUDA THE BIOMED HARNESS AND SWITCHES TO GIVE US DATA ON DONN EISELE, THE COMMAND MODULE PILOT. WE HAVE NO CONVERSATION AT CARNARVON. LET'S MONITOR THE LOOP FOR ANY THING THAT MIGHT DEVELOP.

PAO THIS IS APOLLO CONTROL HOUSTON AGAIN 118 HOURS 29 MINUTES. THE CORPUS CHRISTI SITE HAS CHANGED OUT SEVERAL PARTS OF THEIR CONVERTER SYSTEM AND WITHOUT ANY SUCCESS. I SAY AGAIN THE CORPUS CONVERTER IS STILL DOWN. THEY WERE ESTIMATING IT WOULD BE UP AND READY ABOUT THIS TIME. THEY ARE GOING TO CONTINUE TO WORK ON IT. THEY STILL HAVE ABOUT 35 MINUTES, AND I'M SURE THEY WILL WORK VERY HARD. IF FOR SOME REASON WE DO NOT HAVE THAT REAL TIME CONVERTER CAPABILITY, THE TEXAS STATION OF COURSE WILL RECORD THE SIGNAL. WE'LL HAVE THE TAPE FLOWN TO HOUSTON AND THEN WE WILL SEE IT LATER TODAY. WE WILL GO AHEAD WITH AS MUCH TELEVISION AS WE CAN PROGRAM THROUGH THE MERRITT ISLAND STATION, AND JUST TO RECAP, WE HAVE NOT RULED OUT THE TEXAS STATION YET, BUT IT DOES NOT LOOK GOOD. TWO UNITS OF THE CONVERTER WERE CHANGED OUT IN THE LAST 35 MINUTES, AND APPARENTLY THERE IS SOMETHING ELSE WRONG. AT 118 HOURS 31 MINUTES INTO THE FLIGHT WE ARE STANDING BY WITH THE SPACECRAFT OVER CARNARVON.

CAPCOM APOLLO 7 HOUSTON 1 MINUTE LOS CARNARVON. WOULD YOU TURN UP THE S-BAND FOR CONTACT WITH HONEYSUCKLE?

SC ROGER.

SC HOUSTON, APOLLO 7. OVER.

CAPCOM GO AHEAD.

SC ROGER. I'VE GOT 4 BALLS 5 FOR TRIANGLE DIFFERENCE RIGEL - I'VE GOT 5 BALLS, EXCUSE ME, ON RIGEL AND SIRIUS AND YOU'RE READING WITH 4 T ANGLES NOW.

CAPCP AFFIRM. WE FOLLOWED YOU ALL THE WAY THROUGH 52 THERE, DONN.

SC THIS IS NOT THE REGULAR NAVIGATOR.

CAPCOM OKAY.

APOLLO 7 COMMENTARY, 10/16/68, GET: 1182725 (CDT 8:37 A) 378/2

SC
CAPCOM
PAO

THIS IS THE ALTERNATE NAVIGATOR.
ROGER, COPY.

THIS IS APOLLO CONTROL HOUSTON 118 HOURS
39 MINUTES INTO THE FLIGHT. AND ACCORDING FROM THE LAST
READING FROM OUR TEXAS STATION AT CORPUS CHRISTI THEY WILL
NOT BE ABLE TO SUPPORT THE TV PASS. THEY ARE STILL WORKING
FEVERISHLY TO GET THEIR CONVERTER FIXED, BUT IT'S BEEN
WITHOUT ANY MAJOR SUCCESS AT THIS POINT. THUS THEY HAVE
TO SUGGEST THAT THEY WILL NOT BE ABLE TO SUPPORT THE PASS.
HOWEVER, THEY WILL BE WATCHING AND RECORDING THE INBOUND
SIGNAL AT CORPUS, THEY WILL BE DESCRIBING IT TO US ON A
SEPARATE LOOP, AND BY VOICE AT LEAST WE WILL TRY TO RELAY
WHAT - AT LEAST SOMETHING OF THE QUALITY OF THE PICTURE AND
THE STATE OF THE ACTION AS IS SEEN FROM CORPUS, AND WE SHOULD
BE ABLE TO SEE A PICTURE AT MERRITT ISLAND ACQUISITION AT
WHICH TIME IS NOT YET POSTED, BUT WE'LL HAVE IT FOR YOU
VERY SHORTLY. THE SPACECRAFT HAS LOST SIGNAL NOW VIA THE
HONEYSUCKLE STATION IN EASTERN AUSTRALIA, AND WE'LL COME
BACK TO YOU AT THE SHIP HUNTSVILLE IN ABOUT 15 MINUTES.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1185320 (CDT 8:58A) 379/1

PAO THIS IS APOLLO CONTROL HOUSTON, 118 HOURS,
53 MINUTES INTO THE FLIGHT AND WE JUST RECEIVED WORD FROM
CORPUS CHRISTI THAT THE BALKY CONVERTER DOWN THERE THIS
MORNING IS GREEN AND GO, IT HAS BEEN FIXED. THERE ARE SAYING
NOW THEY WILL BE ABLE TO SUPPORT A TV PASS OVER CORPUS ON
THIS UP COMING REV ACROSS THE STATES. WE HAVE NOT YET
ACQUIRED THROUGH THE HUNTSVILLE, WE WILL COME BACK TO YOU
WHEN WE DO, IN ABOUT 5 MINUTES. THIS IS APOLLO CONTROL
HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1185832 (CDT 09:03A) 380/1

PAO AND WE ARE STANDING BY HERE IN THE CONTROL CENTER, SET TO ACQUIRE ANY MOMENT NOW. 119 HOURS AND THE CREW IS NOW ASKING IF WE ARE RECEIVING THEIR PROGRAM AND WE ARE NOT. THE SCREEN IS BLACK. THE SCREEN IS STILL BLACK. THERE ARE SOME LIGHT PATTERNS MOVING BACK AND FORTH ACROSS IT. ELAPSED TIME 119 HOURS 05 MINUTES AND WE SHOULD BE GETTING A SOLID SIGNAL FROM CORPUS JUST ANY SECOND. AS REPORTED EARLIER, WE HAVE HAD TROUBLE WITH THAT CONVERTER THIS MORNING AND WE HAVE GOT OUR FINGERS CROSSED. THEY REPORTED ABOUT 20 MINUTES AGO, THEY WERE UP AND READY. NOW WE ARE SEEING SOME WHITE LINES ACROSS THE SCREEN WHICH IS THE KIND OF THING WHICH PRECEDED THE TRANSMISSIONS IN THE PAST 2 DAYS. DONN EISELE JUST ASKED "ARE YOU PICKING UP ANYTHING," AND NOW TEXAS HAS ACQUISITION, SPACECRAFT ACQUISITION. STILL NO PICTURE, SOME SNOW. DONN EISELE REPORTED THAT THE CREW COMMANDER HAS A SIGN WHICH IS GETTING HEAVY. OBVIOUSLY IN JEST. NOW WE ARE BEGINNING TO SEE GLIMPSES OF A PICTURE, BUT IT'S A LARGE, WASHY KIND OF A THING WITH NO DEFINITION OF THE FORMS.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1190700 (CDT 9:11A) 381/1

PAO ... WASHY KIND OF A THING WITH NO DEFINITION OF THE FORMS. NOW, WE'RE CHECKING ANTENNA PATTERNS, STILL NO READABLE PICTURE. WE'RE NOW ALERTED, THE CREW IS HOLDING A SIGN OF SOME SORT. GUAYMAS HAS DONE A HANDOVER TO THE TEXAS SITE FOR DATA PURPOSES, WHICH IS COMING IN FINE. THE EECOM SAYS WE SHOULD SWITCH ANTENNAS, THAT MIGHT HELP. PICTURE VERY WASHY AND UNREADABLE. JUST WHITE SMEAR THROUGH CENTER OF DARK SCREEN. WE'RE NOT JUST SURE OF WHETHER IT IS THE CONVERTER OR NOT, BUT WE HAVE HAD AS YET NO READABLE PICTURE, NO READABLE PICTURE IN THE CONTROL CENTER, 119 HOURS, 8 MINUTES. AMONG THE MORE ANXIOUS VIEWERS IS FLO CUNNINGHAM, THE WIFE OF WALT CUNNINGHAM, AND WALT'S BROTHER BILL, WHO IS VISITING HERE FROM ALASKA. NOW, WE'RE GETTING A PICTURE. LET'S ALL HAVE A LOOK.

SC JACK, DO YOU SEE THE PICTURE NOW?

CAPCOM WE'RE RECEIVING THE PICTURE, IT'S A LITTLE BRIGHT. COULD YOU BRING IT IN A LITTLE? ROGER, THE LOVELY APOLLO ROOM, HIGH ATOP EVERYTHING.

SC ROGER, THIS IS YOUR CAPTAIN SPEAKING ON THIS FLIGHT, AND YOU CAN UNFASTEN YOUR SEAT BELTS AND RELAX AND WE HOPE WE CAN MAKE THIS FLIGHT ENJOYABLE FOR YOU. AT THIS TIME, WE WOULD LIKE TO DEMONSTRATE ONE OF OUR MINOR PROBLEMS HERE, IN FACT, I SHOULD TELL YOU WHAT TIME IT IS. JUST ONE MOMENT AND WE'LL GET A COMPUTER ON THE LINE HERE. OKAY, WE'LL RESET THAT.

CAPCOM HE'S GETTING GET TO YOU.

SC AND NOW WE HAVE THAT TIME, CAPTAIN. IT WAS 119 HOURS, 9 MINUTES AND SOME ODD SECONDS INTO THE FLIGHT. ONE OF OUR PROBLEMS AT THIS TIME IS MAKING NOTE OF THE SMALL ARROW HERE, WE'RE NOT SURE WHAT IT MEANS, IN THAT UP IS NOT NECESSARILY UP OR DOWN, BUT WE WILL DISCUSS THAT AT A LATER TIME. WHAT YOU JUST OBSERVED WAS A FUMBLING ATTEMPT TO GET THE KEYBOARD WORKING ON OUR DISKY, HIGH IS OUR DISPLAY KEYBOARD, AND THE NUMBERS YOU ARE READING IS THE TIME (GARBLE) FROM THE ONBOARD COMPUTER. AND NOW YOU SEE WALT CUNNINGHAM PREPARING SOME OF OUR FOOD AT OUR FOOD STATION. I'LL BRING YOU IN CLOSER TO SHOW YOU WHAT OUR FOOD STATIONS HAVE. WE HAVE TWO BUTTONS, THE UPPER BUTTON IS COLD, THE LOWER IS HOT; AND THERE IS A SPOUT, THAT WALT IS NOW UNCOVERING. WHEN WE DEPRESS THE BUTTON, WITH THE APPROPRIATE CONTAINER OVER THE SILVER SPOUT, WE DELIVER 1 OUNCE OF WATER, BE IT HOT OR COLD. AT THIS TIME, WALT WILL GET SOME OF THE FOOD. ONE OF THE NICER FEATURES OF THE FOOD PREPARATION ON THIS (GARBLE) IS A NICE FEATURE ABOUT THE FOOD, IS THAT WE HAVE HOT WATER AND THIS MAKES THE FOOD MUCH MORE ENJOYABLE AND QUITE PALATABLE. WE USE SURGICAL SHEARS TO CUT OPEN THE UPPER PORTION OF THE PLASTIC BAG AND WE PRY OPEN THE SPOUT, WHICH WAS INTERFACED IN THE TOP. AT THIS POINT, WALT IS APPLYING IT TO THE TAP.

APOLLO 7 COMMENTARY, 10/16/68, GET: 1190700 (CDT 9:11A) 381/2

SC WE WILL USE COLD WATER TO RECONSTITUTE SOME FRUIT JUICE. YOU SEE HIM DEPRESS THE BUTTON, AND EACH DEPRESSION SUPPLIES 1 OUNCE OF COLD WATER. THIS WATER IS QUITE DELIGHTFUL. IT'S COLD, ABOUT 50 TO 45 DEGREES FAHRENHEIT. AT FIRST, WE WERE ADDING CHLORINE TO THE WATER DAILY TO BE SURE THERE WERE NO CONTAMINANTS OR BACTERIA THAT WAS DEVELOPING IN THE WATER. THIS LEFT A RATHER BAD AFTER TASTE. WE ARE NOW ADDING CHLORINE APPROXIMATELY EVERY OTHER DAY.

PAO THAT'S WALLY SCHIRRA DOING THIS RUNNING COMMENTARY.

SC YOU WILL NOTICE THE BUBBLES THAT ARE IN THE BAG. THERE'S A LITTLE BIT OF GAS IN THE WATER, THIS DOES NOT CAUSE TOO MUCH PROBLEM. IF YOU GET A LOT OF GAS, IT DOES, AND WE HAVE TO CLEAN THE GAS OFT OF THE TANK AGAIN. FORTUNATELY, THIS HAS NOT HAPPENED TOO OFTEN. THEN, THE NEXT STEP IS TO KNEAD THE BAG, THIS MIXES THE POWDER CONCENTRATE WITH THE WATER AND THEN WE END UP WITH A COMPLETE DRINK. WE MAY HAVE A ZERO G DEMONSTRATION AVAILABLE FOR YOU HERE, WHERE WE CAN SPIN THE BAG AND YOU WILL NOTICE THE BUBBLES ARE SORT OF BREAKING AND FALLING APART. THEY DO NOT FORM A SOLID MASS OF BUBBLE, BUT YOU CAN SEE IN THE CENTER A RATHER INTERESTING FORMATION OF BUBBLES. I'D LIKE TO PASS THE CAMERA NOW TO DONN EISELE. I'D LIKE TO TRY TO SHOW YOU THE PROBLEM WE HAVE WITH THE WATER CONDENSATION UNDERNEATH, ON THE WATER PANEL. HERE GOES THE CAMERA TO DONN. WHILE WALLY IS GETTING UNDER THE COUCH TO DEMONSTRATE THE SUCTION THAT WE USE TO CLEAN UP THE WATER THAT HAS BEEN ACCUMULATING ON THE COLD PIPES, I'LL DESCRIBE THE SYSTEM THAT WE DO HAVE. WE HAVE AN OVERBOARD DUMP HOSE, WHICH DUMPS THE LIQUID WE HAVE IN THE SPACECRAFT OVERBOARD THROUGH A HEATED VENT, THAT HOSE HAS BEEN PASSED TO DONN, AND HE HAS A PURGE FITTING ATTACHED TO THE END OF IT. I'M NOW GOING TO GO TO THE DUMP POSITION ON THE WASTE MANAGEMENT SYSTEM, AND WALLY WILL BE BACK CLEANING UP SOME WATER WHILE DONN AND I THROW LIGHT ON IT.

CAPCOM APOLLO 7, HOUSTON. COULD YOU GIVE US THE POSITION OF THE SWITCH ON THE TV CAMERA?

SC ALC IS OUT.

CAPCOM WE WOULD LIKE TO SWITCH THAT POSITION TO ON, TO THE ALC POSITION.

SC ROGER. IS YOUR PICTURE SATISFACTORY.

CAPCOM IT'S A GOOD PICTURE, WE'RE TRYING TO IMPROVE IT A LITTLE.

SC ROGER. WE RETURN TO SHOW YOU A PICTURE OF A PLUMBING FITTING THAT HAS A LOT OF WATER ON IT, CLINGING TO IT. DO YOU SEE THE WATER ON THE FITTING? CAN YOU SEE THE WATER ON THE FITTING, JACK?

CAPCOM WE'RE LOOKING - DON'T QUITE SEE IT.

SC OKAY.

APOLLO 7 COMMENTARY, 10/16/68, GET: 1190700 (CDT 9:11A) 381/3

SC COULD YOU SEE THE FITTING?
CAPCOM AFFIRMATIVE. COULD YOU GO BACK TO THE
OFF POSITION?

SC IT'S ALWAYS WORKED BETTER IN THE OFF
POSITION. MAYBE YOU WILL SEE IT WHEN HE STARTS SUCKING IT
UP. OKAY, NOW HE'S GOING TO SUCK UP WITH THE WATER WITH
THE VACUUM LINE WE HAVE. IT'S A VERY, VERY SMALL VACUUM,
BUT SO FAR IT SEEMS TO HAVE WORKED PRETTY WELL AT TAKING
WATER OVERBOARD. IT'S A PRETTY GOOD SIZE BLOB OF WATER
THAT'S - YES - TAKES QUITE AWHILE. ARE YOU OBSERVING THAT,
JACK?

CAPCOM AFFIRMATIVE, WE GOT YOU 5 BY. WE'VE GOT
ABOUT ANOTHER MINUTE AND A HALF OF PICTURE HERE.

SC OKAY. OKAY, THIS IS PART OF OUR REGULAR
PREPARATION FOR A BURN NOW, IS TO CLEAN OFF WHAT WATER WE
CAN SEE BECAUSE AFTER AN SPS BURN IT SEEMS TO END UP ON
THE AFT BULKHEAD. THIS WATER IS FORMED BY CONDENSING ON
THE COLD GLYCOL LINES. JOHN WE'LL FINISH OUT THE RUN BY
SHOWING YOU THE MDC IN FRONT OF THE COMMANDER'S
STATION. GO AHEAD AND TALK DOWN.

SC ALL RIGHT. THIS IS THE COMMANDER'S STATION,
THE LEFT SEAT DRIVER CONTROLS THE ATTITUDE OF THE SPACECRAFT
AND ALSO THE OPERATION OF THE MAIN CONTROL SYSTEM. THIS
INSTRUMENT IN THE MIDDLE IS THE HEART OF THE WHOLE THING
REALLY, IT IS CALLED OUR FLIGHT DIRECTOR ATTITUDE INDICATOR
WHICH IS COMPARABLE TO THE ARTIFICIAL HORIZON IN AN AIRPLANE,
IT IS JUST THAT IT OPERATES ALL 3 AXES INSTEAD OF JUST TWO.
THESE VARIOUS SWITCHES CONTROL THE CONFIGURATION OF THE
MANUAL ATTITUDE CONTROL SYSTEM. WE CAN HOLD AN ATTITUDE
OR WE CAN FREE DRIFT, WE CAN HAVE 2 OR 3 MODES TO USE THE HAND
CONTROLLER. THIS IS THE HAND CONTROLLER THAT YOU USE TO SLIDE
THE SPACECRAFT AROUND VARIOUS ATTITUDES MANUALLY. THESE SWITCHES
HERE CONTROL THE ELECTRONICS AND WHETHER OR NOT THE SIGNALS
GET FROM THE HAND CONTROLLER OUT TO THE LITTLE JETS TO FIRE
THEM.

PAO THERE, WE ARE LOS THE SPACECRAFT ALMOST
OVER BERMUDA. WE HAVE LOST THE PICTURE, BUT WE SAW A MOST
INTERESTING DEMONSTRATION OF SPACE-AGE PLUMBING. HERE'S
SOME MORE COMMENTARY.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1191800 (CDT: 9:22A) 382/1

PAO AND THE TV LINES HAVE BEEN TURNED DOWN WHICH WILL END OUR TELEVISION ACTIVITIES FOR ANOTHER DAY AND WE ARE GOING TO HAVE A FULL DISCUSSION OF THE LIGHT SETTING AND SOME OTHER CONDITIONS RELATIVE TO THE TELEVISION PASS. THERE MAY BE ADDITIONAL COMMENTARY; WE'LL JUST LEAVE THE LINE OPEN.

PAO WELL, ALL IN ALL, WE WOULD HAVE TO SAY THE TELEVISION RECEPTION TODAY WAS NOT UP TO THE PAST 2 DAYS AND AS YET, WE CAN'T PUT OUR FINGER ON ANY ONE THING; WHETHER IT WAS A GROUND STATION PROBLEM OR IF SO, WHERE. WE DID SEE SOME MAJOR CHANGES IN THE PICTURE QUALITY WITH THE AUTOMATIC LIGHT CONTROL SYSTEM THAT WAS REFERRED TO AS ALC WAS BROUGHT UP AND FRANKLY I HAD THE IMPRESSION THAT THE PICTURE QUALITY WAS BETTER WITH THE AUTOMATIC LIGHT CONTROL BUTTON OPERATING ALTHOUGH WE SPENT MOST OF THE PASS WITH IT TURNED OFF. WE ARE ONLY A MINUTE FROM LOS THROUGH THE SHIP VANGUARD. NOW WE DO HAVE SOME COMMENTARY; LET'S GO BACK.

SC THANK YOU JACK. JACK, COULD YOU GET A VIEW OF THAT WATER BLOB DOWN THERE?

CAPCOM WE COULDN'T PICK UP THE WATER ITSELF VERY CLOSELY BUT WE SAW APPROXIMATELY WHAT YOU WERE VACUUMING.

SC THAT'S ONE OF THE AREAS; A NUMBER OF THEM WHERE THEY COLLECT. THERE IS ONE RIGHT INSIDE WHERE THE STEAM CONDUCTOR IS; I'M IN THERE NOW; THERE'S A REAL BIG BLOB OF WATER.

CAPCOM ROGER; COPY. WE'LL SEE YOU AT TANANARIVE.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1200015 (CDT 10:04A) 383/1

PAO THIS IS APOLLO CONTROL HOUSTON 120 HOURS INTO THE FLIGHT OF APOLLO 7. THROUGH TANANARIVE WE HAD THIS CONVERSATION.

CAPCOM APOLLO 7, HOUSTON THROUGH TANANARIVE.

SC ROGER HOUSTON.

CAPCOM WE ARE STANDING BY.

SC THIS IS APOLLO 7.

CAPCOM GO AHEAD, 7.

SC ROGER. (GARBLE)

CAPCOM WALT, THE COM IS REAL BAD HERE AT TANANARIVE. I COULD HARDLY MAKE YOU OUT. COULD YOU SAY AGAIN?

SC OKAY. IT'S A QUESTION ON PUTTING THE WATER BOILER BACK ON THE LINE.

CAPCOM STAND BY.

CAPCOM APOLLO 7, HOUSTON. BRING BACK THE WATER BOILER BACK ON THE LINE. WE WILL TAKE A LOOK AT IT OVER CARNARVON AT 120 + 00.

SC ROGER.

PAO THAT CONCLUDED TANANARIVE. WE ARE ABOUT TO ACQUIRE THROUGH CARNARVON. LET'S LISTEN.

COMM ARIA 2, GO REMOTE.

PAO THIS IS APOLLO CONTROL HOUSTON. FOR THOSE OF YOU IN THE NEWS CENTER, BUILDING 1, THE AUDITORIUM AREA, WE ARE FEEDING THE TAPE FROM THE CORPUS - THE MERRITT ISLAND PASS YESTERDAY TO THE NEWS CENTER. YOU CAN SEE IT ON YOUR MONITORS OVER THERE RIGHT NOW. IT'S A FAR SHARPER PICTURE THAN THE ONE YOU SAW IN THE LIVE, REAL TIME SITUATION.

SC HOUSTON, APOLLO 7.

CAPCOM GO AHEAD, 7.

SC ROGER. I'VE GOT THE SHAFT AT 115.33 AND THE TRUNNION AT 31.707 FOR THE SEXTANT STAR CHECK.

CAPCOM ROGER, WE COPIED THAT. AND WALT, WE WOULD LIKE YOUR 02 FANS, TANK 2, ON FOR 3 MINUTES.

CAPCOM APOLLO 7, HOUSTON. YOUR SEXTANT STAR CHECK IS GO AND WE WOULD LIKE TO REMIND YOU TO HAVE THE BATTERIES OFF AS SOON AS POSSIBLE AFTER THE BURN.

SC OKAY.

SC JACK, WE DID A - SKIPPED THAT PRIOR REQUEST AT SEF ATTITUDE REFERENCE CHECK AT 119 HOURS AND 30 MINUTES. I DID THAT THE OTHER DAY AND GAVE YOU 1 HOURS 15 MINUTES COMPARISON. THAT SHOULD BE BETTER THAN THE CHECK WE'VE HAD A CALL FOR.

CAPCOM OKAY, WE COPY THAT.

SC IT'S NOT THAT I DIDN'T WANT TO DO IT, BUT WE DID IT - SO FREE THAT WE HAD A GOOD CHANCE TO DO IT.

CAPCOM OKAY.

SC THAT SHOULD BE IT.

APOLLO 7 COMMENTARY, 10/16/68, GET: 1200015 (CDT 10:04A) 383/2

CAPCOM APOLLO 7, 1 MINUTES LOS CARNARVON, HAWAII AT 120 + 25.

SC ROGER. THE WATER BOILER LOOKS LIKE IT'S TICKING ALONG OKAY, JACK. I THINK WE CAN LEAVE IT ON.

CAPCOM WE CONCUR. LOOKS GOOD HERE.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1202720 (CDT 10:33A) 384/1

PAO APOLLO CONTROL HOUSTON HERE 120 HOURS
27 MINUTES INTO THE FLIGHT AND WE HAVE ACQUIRED THROUGH
HAWAII AND HERE IS WHAT IT SOUNDS LIKE.
CAPCOM APOLLO 7 HOUSTON THROUGH-HAWAII.
SC ROGER.
CAPCOM WALLY, WE SAW - AS YOU WENT OVER THE
HILL WE SAW YOU LOOKING AT NOUN 54. YOUR R1 AND R2 WILL
BE ZERO IN THAT NOUN, BECAUSE THE F-4B AND CSM SPEED VECTORS
THAT WE UPLINKED A WHILE BACK ARE THE SAME. THE CSM STATE
VECTOR IS A GOOD STATE VECTOR.
SC ROGER.
CAPCOM AND WE WOULD LIKE TO HAVE YOU TURN 02 FANS
TANK 01 OFF FOR THE BURN HERE.
SC TANK 01 OFF AND TANK 02 OFF. IS THAT
CORRECT?
CAPCOM THAT IS AFFIRMATIVE.
SC OKAY. I'LL TURN TANK 01 OFF NOW.
CAPCOM APOLLO 7, ALL YOUR SYSTEMS AND EVERYTHING
LOOKS REAL GOOD HERE ON THE GROUND.
SC ROGER WE GO.
SC JACK, ON THIS WE HAVE FLIGHT PLAN SEAT
ASSIGNMENT.
PAO YOU HEARD SCHIRRA ADVISE A MOMENT AGO
THAT THE SEATING WAS PER THE FLIGHT PLAN, THAT WOULD BE
DONN EISELE IN THE LEFT COUCH, WALT CUNNINGHAM IN THE CENTER,
AND THE COMMANDER, WALLY SCHIRRA IN THE RIGHT COUCH. THEY
ARE PREPPED AND READY FOR THE MINIMUM IMPULSE BURN TO BE
PERFORMED AT 120 HOURS 43 MINUTES, ABOUT 13 MINUTES FROM
NOW, WHICH BURN SHOULD TAKE PLACE OVER THE STATES. STANDING
BY.
SC HOUSTON, APOLLO 7, OVER.
CAPCOM GO AHEAD 7.
SC ROGER. I FORGOT TO GIVE YOU A READING.
I HAD 246 MM OF 02 PARTIAL PRESSURE THIS MORNING.
CAPCOM OKAY, COPY THAT.
PAO THIS IS APOLLO CONTROL 120 HOURS 30 MINUTES.
IT OBVIOUSLY IS GOING TO BE PRETTY QUIET UNTIL WE GET OVER
THE STATES. WE WILL COME BACK UP TO YOU THEN.
END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1203930 (CDT: 10:44A) 385/1

PAO THIS IS APOLLO CONTROL, 120 HOURS, 39 MINUTES INTO THE FLIGHT. IN ABOUT 3 MINUTES WE EXPECT THE MINIMUM IMPULSE BURN; IT WILL BE A BURN WITH A DURATION OF .4 SECONDS. FOUR TENTHS OF A SECOND. IT IS TO IMPART A DIFFERENTIAL VELOCITY OF ABOUT 13 FEET PER SECOND. THE FLIGHT PLAN SHOWS IT AT 12.9. THE BURN WILL BE DONE IN PLANE AND THE RESULT IN ORBIT SHOULD BE 90 BY 156 NAUTICAL MILES. PRESENTLY IN ABOUT 89 BY 156. SCHIRRA IS ADVISING THE ATTITUDES ARE ALL SET UP; LET'S TUNE IN ON SOME OF THAT CONVERSATION.

CAPCOM APOLLO 7, HOUSTON. I'LL GIVE YOU A TIME HACK AT 2 MINUTES. 5, 4, 3, 2, 1, MARK. T MINUS 2 MINUTES.
SC (GARBLE) 5 BY 5 (GARBLE) S BAND NORMAL.
THRUST 00 (GARBLE)

PAO THAT'S WALLY SCHIRRA CALLING OFF THE ITEMS ON THE CHECK LIST AND DON EISELE RESPONDING TO THE CHECK LIST. SCHIRRA IS OVER IN THE RIGHT SEAT, CUNNINGHAM IN THE CENTER, EISELE ON THE LEFT, AND EISELE WILL MANAGE THE BURN. SPACECRAFT IS OVER ARIZONA.

SC (GARBLE) ON; AND 22ND (GARBLE)/ ROGER
I READ YOU (GARBLE)

PAO OUR CHARTS DOWN HERE SHOW THAT THE ULLAGE MANEUVER AT 20 SECONDS WORTH IS BEING PERFORMED USING QUADS B AND D 4, 3, 2, 1 - AND WE HAVE HERE A SHOUT WHICH WOULD INDICATE WE HAD A BURN.

SC (GARBLE) OFF. OKAY, WE'VE GOT 10 SECONDS WITH THE (GARBLE) ROGER. (GARBLE) ESSENTIALS MINUS 2.24, 4 BALLS ON IT (GARBLE).

PAO ALL IN ALL IT SOUNDS LIKE A GOOD BURN.

SC THE (GARBLE) IS OPEN. ROGER; MOTOR CIRCUIT OPEN AND COMING THROUGH THE POWERS - FUEL PUMP (GARBLE) COMING OFF. REGRESS NOW INTO THE SIDE NEAR (GARBLE)

CAPCOM ROGER; COPY.

SC DID YOU COPY MY (GARBLE) THE IF?

CAPCOM AFFIRMATIVE.

SC D MODE STILL OPEN STILL (GARBLE) TO CONTROL. BOTH CONTROLS ARE LOCKED; (GARBLE) OFF, MINUS 7.7.

CAPCOM ROGER; COPY THAT.

SC WE ARE DOING 15.3 I GUESS.

CAPCOM ROGER.

SC SAW ALL 4 CONTROL VALVE.

CAPCOM ROGER; SAY AGAIN WALLY.

SC ALL 4 VALVES ROLLED BUT THAT IS A SURPRISE IN THAT SHORT BURN.

CAPCOM OKAY.

PAO AS YOU CAN HEAR, IT IS ALL QUIET IN THE LOOP AFTER THAT SUCCESSFUL BURN. THE SPACECRAFT IS RIGHT OVER NEW ORLEANS COMING UP ON THE CAPE.

SC HOUSTON, I JUST CHECKED ALL FILE BATTERIES AND BOTH ARE 30 SECOND MODES.

APOLLO 7 COMMENTARY, 10/16/68, GET: 1203930 (CDT: 10:44A) 385/2

CAPCOM ROGER; THANK YOU.
SC JACK, DID YOU EVER DRIVE THOSE LITTLE
HOUSTON PARK CARS; THOSE BUMPER THINGS?
CAPCOM SAY AGAIN.
SC THOSE LITTLE SCOOTER THINGS WHEN YOU TRY
TO PASS YOU BUMP OFF THE GROUND RAILS AND CRASH INTO EACH
OTHER? THAT'S THE CLOSEST THING WE CAN THINK OF FOR THAT
PARTICULAR BURN; LIKE SURGING HEAD ON INTO SOMEBODY LIKE AN
AMUSEMENT PARK SCOOTER.
CAPCOM OKAY, ROGER. COPY THAT. WE GOT A COMMANDED
ON TIME DOWN HERE OF .51 SECONDS.
SC ROGER.
CAPCOM WALLY, HOW LONG HAS IT BEEN SINCE YOU
HAVE BEEN TO AN AMUSEMENT PARK AND DONE THAT?
SC I'M NOT GOING TO TELL.
CAPCOM ROGER.
SC IT'S REALLY BEEN ABOUT A COUPLE OF DAYS
AGO.
PAO PERHAPS IT WAS A LITTLE HARD TO UNDERSTAND
THAT TRANSMISSION; SCHIRRA HAS LIKENED THAT LITTLE BLIP BURN
WE JUST DID TO THE IMPACT THAT ONE GETS AT AN AMUSEMENT PARK
IN OPERATING THE LITTLE DODGING CARS - THE KIND THAT OPERATE
FROM AN ELECTRICAL SOURCE AND BUMP INTO EACH OTHER. A PRETTY
GOOD - BRISK BUMP AS I RECALL. HE WAS ASKED WHEN THE LAST
TIME HE HAD OPERATED ONE OF THOSE CARS AND HE - HIS MEMORY
FAILED HIM. WE'LL KEEP THE LINE OPEN.
SC JACK, (GARBLE) PUMPS ONLY 1 DAY WATCH AND
THEN TURN IT BACK OFF.
CAPCOM WALLY, WE COULDN'T COPY THAT; COULD YOU
SAY AGAIN?
SC WE ARE DOING A (GARBLE) COUCH SEATS ARE
(GARBLE)
CAPCOM WE STILL COULDN'T GET IT WALLY.
SC WE ARE GOING TO PUT THE CREW BACK INTO
THEIR ORIGINAL SEAT ASSIGNMENTS.
CAPCOM ROGER; COPY.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1203122 (CDT: 10:35A) 386/1

SC (GARBLE) TESTING IS OFF.
CAPCOM ROGER.
SC RATE FUEL ALSO. TO GO ON PITCH, ROLL
AND YAW. PITCH (GARBLE) START. (GARBLE)
CAPCOM HUNTSVILLE LOS.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1204930 (CDT 1054A) 387/1

PAO THE FLIGHT DYNAMICS OFFICER HAS COMPUTED THE ORBIT RESULTING FROM THAT LITTLE BLIP BURN A FEW MINUTES AGO AND HE PRESENTLY READS IT AT 90.3 BY 157.5 NAUTICAL MILES. 90.3 BY 157.5.

CAPCOM APOLLO 7, HOUSTON, YOU ARE 1 MINUTE LOS BERMUDA, WE'LL PICK YOU UP AT ASCENSION AT 121 PLUS 03.

SC JACK, (GARBLED) LANDMARK TRACK UPDATE DATA.

CAPCOM ROGER, WE'LL - WE HAVE LANDMARK TRACK PAD, I'LL PASS IT UP TO YOU AT ASCENSION. YOUR ORBIT NOW 90.3 BY 157.5.

SC ROGER.

SC HELLO AIR BOSS, HELLO AIR BOSS. THIS IS APOLLO 7. DO YOU READ?

AIR BOSS ROGER, READ YOU LOUD AND CLEAR LD. OVERHEAD AND DOING WELL.

SC AIR BOSS, AIR BOSS, APOLLO 7. OVER.

PAO THIS IS APOLLO CONTROL. DONN EISELE APPARENTLY SPOTTED THE CARRIER ESSEX, WHICH IS CRUISING OFF THE SOUTHEAST COAST OF FLORIDA. HE JUST PUT IN A CALL AND RAISED THE CARRIER USING THE CALL SIGN AIR BOSS, AND WE'RE GETTING ONE HALF OF THE -

SC HELLO AIR BOSS, HELLO AIR BOSS. APOLLO 7, DO YOU READ?

PAO WELL, WITH THE SPACECRAFT OUT IN THE FAR EDGE OF THE ANTIGUA AREA I'M SURE THAT'S THE LAST WE'LL HEAR OF IT UNTIL IT REACHES ASCENSION AND WE WON'T KNOW JUST HOW WELL THEY RECEIVED THE AIR BOSS - THE CALL SIGN AIR BOSS, WHICH IS THE CARRIER ESSEX OPERATING ABOUT A THOUSAND MILES SOUTHEAST OF THE COAST OF FLORIDA. AT 120 HOURS 56 MINUTES INTO THE FLIGHT THIS IS APOLLO CONTROL

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1210500 (CDT 11:10A) 388/1

PAO THIS IS APOLLO CONTROL HOUSTON 121 HOURS 05 MINUTES INTO THE FLIGHT. THROUGH ASCENSION, WE HAVE BEEN TALKING TO THE CREW AND WALLY SCHIRRA CLEARED UP THE MYSTERY OF THAT BROADCAST TO THE - TO AIRBOSS, WHICH IS THE CODE NAME FOR THE PRIMARY SEARCH AND RECOVERY AIRPLANE OPERATING OFF THE CARRIER ESSEX, THAT THE CREW HOPES TO SEE IN A BUSINESS WAY ON ABOUT NEXT TUESDAY MORNING. APPARENTLY, THE RECOVERY PEOPLE WERE HAVING A PRACTICE RUN THIS MORNING AND WERE USING ALL THE CALL SIGNS. UNBEKNOWNST TO THEM, APOLLO 7 WAS OVERHEAD, HEARD IT'S NAME CALLED, AND ANSWERED THE CALL, SO THEY HAD A BRIEF CHAT. HERE IS THE TAPE FROM ASCENSION.

CAPCOM APOLLO 7, HOUSTON THROUGH ASCENSION.

SC ROGER JACK.

CAPCOM ROGER, 7. WALT, WE WOULD LIKE TO HAVE YOU SWITCH YOUR O2, TANK 1, FANS TO AUTO.

SC ROGER, DONE. THE BOTTLE TEMPERATURE WAS ALL THE WAY DOWN TO 34 DEGREES AND STEAM PRESSURE WAS ABOUT .07 OR .08.

CAPCOM ROGER, WE COPY THAT. WE WOULD LIKE TO FIND OUT WHAT CYCLIC WATER ACCUMULATOR YOU ARE OPERATING ON NOW.

SC AUTO OFF AND MANUALLY CYCLING THE WATER ACCUMULATED THREE OR FOUR TIMES.

CAPCOM OKAY, COPY THAT. DID YOU SWITCH AUTO ACCUMULATORS LATELY, WALT?

SC UNLESS THE LAST TIME ANYBODY USED THE MANUAL WATER ACCUMULATORS, MAYBE THEY TURNED OFF AND FLIPPED BACK TO A DIFFERENT ONE. BUT I SWITCH IT REGULARLY EVERY DAY AND HAVE DONE A COMPONENT CHECK.

CAPCOM OKAY, REAL FINE. WE COPIED SOME CALLS DOWN TO AIRBOSS. I THINK SOME OF THE CONVERSATION WAS THAT OF THE RECOVERY FORCES. THEY WERE CONDUCTING AN EXERCISE IN THE ATLANTIC.

SC ROGER, UNDERSTAND THAT. WE ACTUALLY JUMPED TO INTERRUPT THEIR CONVERSATION BEING SWITCHED FROM APOLLO 1 TO APOLLO 7.

CAPCOM (LAUGHTER) ROGER. I AM READY WITH THIS LANDMARK TRACKING PAD WHENEVER YOU ARE READY TO COPY. OKAY, SURGEON, WHAT DO YOU WANT? SURGEON? WAIT, EECOMM WHAT DID YOU MAKE OF THAT?

SC JACK, THIS IS DONN. GO AHEAD WITH YOUR LANDMARK UPDATE.

CAPCOM OKAY. LANDMARK ID 10 SOUTH. NEXT LANDMARK 67 ON TRACK. THIRD ONE, 141 SOUTH. GET, FIRST LANDMARK, 122 + 14, 122 + 24, 122 + 35.

SC ROGER, UNDERSTAND. FIRST LANDMARK IS 10 SOUTH, NUMBER 2 IS 67 ON TRACK, NUMBER 3 IS 141 SOUTH. THE TIMES ARE 122 + 14, 122 + 24, 122 + 35.

APOLLO 7 COMMENTARY, 10/16/68, GET: 1210500 (CDT 11:10A) 388/2

CAPCOM THAT IS CORRECT.
SC ROGER, WE GOT YOU.
CAPCOM APOLLO 7, WOULD YOU SWITCH YOUR BIO-
MED TO CMP.
SC WILL DO. WE CHANGED AROUND SO MUCH
WE LOST THAT ONE.
CAPCOM COPY.
SC WE MEAN HE HAS A SIGNATURE NOW, HEY?
CAPCOM AFFIRMATIVE.
SC HEY JACK.
CAPCOM GO AHEAD.
SC YOU OUGHT TO SEND OUR PULSE RATE
REPORTS UP HERE THESE DAYS.
CAPCOM STAND BY.
SC OKAY.
CAPCOM APOLLO 7, HOUSTON. THE PULSE RATES
FOR CDR RUN 60 TO 70, THE CMP 75 TO 90, WITH 118 DURING
THE BURN, AND LMP HAS BEEN RUNNING AROUND 80.
SC REPORT LOOKS GOOD, VERY GOOD.
CAPCOM OKAY, WE ARE JUST ABOUT TO LOSE YOU
OVER ASCENSION, TANANARIVE AT 121 + 19.
SC ROGER. JACK, ASK THE MEDICS TO SAVE
THAT STRIP OF CHART FOR DONN AT THE BURN START. IT'S
A NICE SOUVENIR FOR HIM.
CAPCOM WILL DO, WALLY.
SC I STILL HAVE THE ONES (GARBLE).
PAO THIS IS APOLLO CONTROL HOUSTON. WALLY
SCHIRRA DEMONSTRATED AN EXTRAORDINARY INTEREST IN MEDICAL
MATTERS THIS MORNING. HE ASKED FOR THE PULSE RATES OF ALL
THREE CREWMEN AND HE SUGGESTED THAT, INASMUCH AS WE HAD
CAUGHT DONN EISELE ON THE CHART PLUGGED IN, GOT A PULSE
RATE OF 118 AT THE START OF THAT BURN, WHICH HE WAS OPERAT-
ING, THAT THE DOCTORS SHOULD SAVE THE CHART INDICATING THE
PULSE RATE AND GIVE IT TO HIM AS A SOUVENIR AFTER THE
FLIGHT. IT WILL BE DONE. AT 121 HOURS 11 MINUTES INTO
THE FLIGHT, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1213400 (CDT 11:39A) 389/1

PAO THIS IS APOLLO CONTROL AT 121 HOURS
34 MINUTES INTO THE FLIGHT. DURING THIS RECENT SWING
ACROSS THE INDIAN OCEAN WE HAD SOME REMARKABLY CLEAR
COMMUNICATION WITH THE SPACECRAFT ON THE S-BAND CHANNEL
VIA AN ARIA AIRCRAFT. REMARKABLY CLEAR - IT WAS CLEAR
HERE ON THE GROUND, IT WAS CLEAR IN THE SPACECRAFT. FIRST
LET'S TAKE THE TAPE FROM TANANARIVE, THEN WE'LL FOLLOW
THROUGH THE AIRCRAFT PASS. HERE IT GOES.

CAPCOM APOLLO 7, HOUSTON THROUGH TANANARIVE.
SC ROGER. (GARBLED)

CAPCOM AND 7 YOU MIGHT BE INTERESTED IN THAT
TROPICAL STORM GLADYS IS NOW OFFICIALLY A HURRICANE. IT'S
PRESENT POSITION IS APPROXIMATELY OVER HAVANA. YOU'LL
BE ABLE TO SEE IT YOUR NEXT REV. YOU'LL PASS ALMOST OVER
IT.

SC ROGER.

SC HOUSTON, APOLLO 7.

CAPCOM GO AHEAD APOLLO 7.

SC ROGER. WE'RE SCHEDULED FOR A P-52

(GARBLED) I WONDER HOW CRITICAL THAT IS. WE'RE NOT IN THE
PROPER ATTITUDE FOR IT AND (GARBLED)

CAPCOM APOLLO 7, COULD YOU SAY AGAIN? COMM
THROUGH TANANARIVE IS PRETTY POOR.

SC ROGER. REGARDING THE P-52 ALIGNMENT AT
THIS TIME, I WOULD PREFER NOT TO DO THAT. OVER.

CAPCOM OKAY, COPY, STANDBY. APOLLO 7, WE
CONCUR, NEGATIVE P-52.

SC ROGER, THANK YOU.

CAPCOM APOLLO 7, WE'VE GOT ABOUT 1 MINUTE LOS
TANANARIVE. WE WOULD LIKE TO TRY AN S-BAND CONTACT THROUGH
ARIA 2 AT APPROXIMATE 121 PLUS 30.

SC OKAY, WE'LL DO THAT.

PAO THEN AT CARNARVON, WE HAD THIS CONVERSATION.

CAPCOM APOLLO 7, HOUSTON THROUGH ARIA 2.
APOLLO 7, HOUSTON THROUGH ARIA 2.

SC GO AHEAD, HOUSTON.

CAPCOM ROGER, 5 BY THROUGH ARIA 2.

SC VERY GOOD, BEST ARIA WE'VE HAD YET.

CAPCOM WE THOUGHT THIS IS ABOUT THE BEST COMM
WE'VE HAD THROUGH ARIA, WALLY.

SC (GARBLE)

CAPCOM I THINK MAYBE WE OUGHT TO USE S-BAND
THROUGH ALL OF OUR ARIA AIRCRAFT WHEN WE TRY ARIA.

SC I RECKON IT'S BETTER THAN THE WORD WE'VE
HAD WITH TANANARIVE.

CAPCOM I AGREE.

SC HOW LONG CAN WE WORK THIS BURN, JACK?

CAPCOM WE'LL PICK UP CARNARVON HERE AT 121 PLUS

33.

APOLLO 7 COMMENTARY, 10/16/68, GET: 1213400 (CDT 11:39A) 389/1

PAO THIS IS APOLLO CONTROL AT 121 HOURS
34 MINUTES INTO THE FLIGHT. DURING THIS RECENT SWING
ACROSS THE INDIAN OCEAN WE HAD SOME REMARKABLY CLEAR
COMMUNICATION WITH THE SPACECRAFT ON THE S-BAND CHANNEL
VIA AN ARIA AIRCRAFT. REMARKABLY CLEAR - IT WAS CLEAR
HERE ON THE GROUND, IT WAS CLEAR IN THE SPACECRAFT. FIRST
LET'S TAKE THE TAPE FROM TANANARIVE, THEN WE'LL FOLLOW
THROUGH THE AIRCRAFT PASS. HERE IT GOES.

CAPCOM APOLLO 7, HOUSTON THROUGH TANANARIVE.
SC ROGER. (GARBLED)

CAPCOM AND 7 YOU MIGHT BE INTERESTED IN THAT
TROPICAL STORM GLADYS IS NOW OFFICIALLY A HURRICANE. IT'S
PRESENT POSITION IS APPROXIMATELY OVER HAVANA. YOU'LL
BE ABLE TO SEE IT YOUR NEXT REV. YOU'LL PASS ALMOST OVER
IT.

SC ROGER.

SC HOUSTON, APOLLO 7.

CAPCOM GO AHEAD APOLLO 7.

SC ROGER. WE'RE SCHEDULED FOR A P-52
(GARBLED) I WONDER HOW CRITICAL THAT IS. WE'RE NOT IN THE
PROPER ATTITUDE FOR IT AND (GARBLED)

CAPCOM APOLLO 7, COULD YOU SAY AGAIN? COMM
THROUGH TANANARIVE IS PRETTY POOR.

SC ROGER. REGARDING THE P-52 ALIGNMENT AT
THIS TIME, I WOULD PREFER NOT TO DO THAT. OVER.

CAPCOM OKAY, COPY, STANDBY. APOLLO 7, WE
CONCUR, NEGATIVE P-52.

SC ROGER, THANK YOU.

CAPCOM APOLLO 7, WE'VE GOT ABOUT 1 MINUTE LOS
TANANARIVE. WE WOULD LIKE TO TRY AN S-BAND CONTACT THROUGH
ARIA 2 AT APPROXIMATE 121 PLUS 30.

SC OKAY, WE'LL DO THAT.

PAO THEN AT CARNARVON, WE HAD THIS CONVERSATION.

CAPCOM APOLLO 7, HOUSTON THROUGH ARIA 2.
APOLLO 7, HOUSTON THROUGH ARIA 2.

SC GO AHEAD, HOUSTON.

CAPCOM ROGER, 5 BY THROUGH ARIA 2.

SC VERY GOOD, BEST ARIA WE'VE HAD YET.

CAPCOM WE THOUGHT THIS IS ABOUT THE BEST COMM
WE'VE HAD THROUGH ARIA, WALLY.

SC (GARBLE)

CAPCOM I THINK MAYBE WE OUGHT TO USE S-BAND
THROUGH ALL OF OUR ARIA AIRCRAFT WHEN WE TRY ARIA.

SC I RECKON IT'S BETTER THAN THE WORD WE'VE
HAD WITH TANANARIVE.

CAPCOM I AGREE.

SC HOW LONG CAN WE WORK THIS BURN, JACK?

CAPCOM WE'LL PICK UP CARNARVON HERE AT 121 PLUS

33.

APOLLO 7 COMMENTARY, 10/16/68, GET: 1220000 (CDT 12:04P) 391/2

CAPCOM APOLLO 7, HOUSTON. DID YOU COPY THAT?
SC I DIDN'T COPY ANYTHING AFTER I GAVE
YOU THE READBACK.
CAPCOM OKAY. WALT, I DIDN'T GET THE READBACK
ON THE FIRST TIME. THE FIRST GET WAS 123 + '52.
SC CONCUR.
CAPCOM OKAY, REAL FINE.
SC JACK, MARK THE LMP 10 CLICKS OF WATER.
CAPCOM COPY THAT.
SC HEY JACK, THIS IS DONN.
CAPCOM GO AHEAD.
SC THAT FIRST LANDMARK YOU GAVE ME MUST
BE WITHIN THE FIELD OF UA OPTICS AT ZERO ROLL ANGLE.
CAPCOM ROGER, COPY THAT.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET 1215300 CDT 11:58A 390/1

PAO THIS IS APOLLO CONTROL AT 121 HOURS,
53 MINUTES. THROUGH GUAM A MINUTE OR SO AGO WE HAD THIS
COMMUNICATION.
SC (CUT OFF) TO HOUSTON, LOUD AND CLEAR.
CAPCOM STANDING BY.
SC THANK YOU. JACK, WOULD YOU LOG CMP
FOR 10 CLICKS ON THE WATER GUN?
CAPCOM CMP 10 CLICKS.
SC ROG.
CAPCOM APOLLO 7, HOUSTON.
SC GO AHEAD.
CAPCOM IT APPEARS THAT YOUR SM OX TB SWITCH IS
ON, IS THAT AFFIRMATIVE?
SC NEGATIVE IT IS OFF. (GARBLE) ARE ON.
CAPCOM ROGER, I UNDERSTAND.
SC JACK, THIS IS LMP GIVE ME 10 CLICKS ON
THE WATER GUN, AND WHEN YOU GET A CHANCE CAN YOU GIVE US
A MAP UPDATE PLEASE?
CAPCOM ROGER, I'M WORKING.
CAPCOM WE'RE JUST ABOUT TO LOSE YOU OVER GUAM,
HAWAII AT 12159 THAT UPDATE THEN.
SC VERY GOOD.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1220000 ((CDT 12:04P) 391/1

PAO THIS IS APOLLO CONTROL AT 122 HOURS
EVEN INTO THE FLIGHT OF APOLLO 7. HAWAII IS ABOUT TO AC-
QUIRE. LET'S LISTEN.

SC ROGER, LOUD AND CLEAR.

CAPCOM OKAY. I HAVE YOUR MAP UPDATE.

SC GO.

CAPCOM FOR REV 77, THE NODE 121 + 49 + 18.
LONGITUDE AT 148.8 DEGREES EAST. RIGHT ASCENSION OF 04 +
28.

SC ROGER. JACK, WE HAVEN'T BEEN USING
ANY OF THE RIGHT ASCENSIONS, SO YOU CAN DROP THOSE UNLESS
WE ASK FOR THEM, IF YOU WILL.

CAPCOM OKAY.

SC JACK, THIS IS CMP.

CAPCOM GO AHEAD.

SC ROGER. HOW MANY OF THESE LANDMARKS
DO YOU HAVE REAL TIME COVERAGE FOR?

CAPCOM STAND BY.

CAPCOM APOLLO 7, HOUSTON. WE ARE COVERING
THE FIRST TWO LANDMARKS REAL TIME.

SC OKAY.

SC HOUSTON, APOLLO 7.

CAPCOM GO AHEAD, 7.

SC ROGER. WE'VE BEEN UP HERE TRYING TO
DELIBERATE WHETHER TO LOOK AT THE HURRICANE OR THE SECOND
LANDMARK. I SUSPECT THE SECOND LANDMARK IS SOCKED IN BY
THE HURRICANE, IS IT NOT?

CAPCOM NEGATIVE.

SC OKAY.

CAPCOM APOLLO 7, HOUSTON.

SC GO AHEAD.

CAPCOM ROGER. I HAVE THIS MID-COURSE NAVI-
GATION PAD TO PASS UP WHENEVER YOU ARE READY TO COPY.

SC WE WILL DO IT LATER. PRETTY WELL
TIED UP THIS RIGHT NOW.

CAPCOM OKAY, NO PROBLEM. I'M JUST STANDING
BY.

SC GO AHEAD, JACK. I'LL COPY IT.

CAPCOM OKAY. GET START 123 + 52, 124 + 04.
STAR 37, STAR 45, ROLL 000001, PITCH 356306, YAW 001001,
SHAFT 019355, TRUNNION 018014, END.

SC APOLLO 7, DO YOU READ?

CAPCOM APOLLO 7, WE READ YOU NOW. DID YOU
COPY THE MID-COURSE NAVIGATION PAD?

SC 124 + 04, STARS 37 AND 45, 000001,
356/306, 001/001, 019/355, 018/014, OVER.

CAPCOM ROGER. I DIDN'T GET YOUR READBACK
OF THE FIRST TIME. THAT SHOULD BE 123 + 52.

APOLLO 7 COMMENTARY, 10/16/68, GET: 1213400 (CDT 11:39A) 389/2

SC ROGER, DO WE OVERLAP WITH ARIA?
CAPCOM AFFIRMATIVE, THEY WILL CUT US OFF
ARIA, AT THAT TIME AND I HAVE A P-27 VOICE PAD TO GIVE TO
YOU AT CARNARVON.

SC ROGER, WE'LL STANDBY. JUST THE SAME,
JACK. I'M DOING THIS HERE AT (GARBLE). IT'S ABOUT
PITCHED TO ABOUT 26 DEGREES. WE'RE NOT GETTING THE TORQUING
EFFECT WE HAD BEFORE.

CAPCOM OKAY, GOOD ENOUGH.

SC ROGER, WE ARE GETTING SOME MORE WATER OUT
OF THE SUITS AND HOSES AND IT MAYBE (GARBLE) TO THE BURN TO
CLEAN THE WATER UP, BUT OBVIOUSLY WE'RE GETTING IT.

CAPCOM OKAY, COPY.

CAPCOM APOLLO 7 HOUSTON THROUGH CARNARVON.

SC ROGER, LOUD AND CLEAR (GARbled)

CAPCOM IT'S ON THE SUBJECT OF WATER, WALLY.
THROUGH THE TV PASS OVER THE STATES WE DIDN'T COPY TWO -
WE SHOWED THAT YOU WERE MISSING TWO CYCLES ON THE WATER
ACCUMULATORS THERE. YOU MIGHT HAVE PICKED UP SOME EXCESS
WATER DUE TO THAT.

SC I DON'T THINK SO. IT'S A BIGGER DEAL
THAN THAT. WE'VE BEEN CYCLING OFF AND ON EXTRA, IT'S BEEN
CYCLED INITIAL - WHETHER OR NOT YOU KNOW, EVERY 10 MINUTES,
WE CAN'T WATCH IT EVERY 10 MINUTES. WE'VE BEEN CYCLING EXTRA
TESTS, AND WE'VE DONE AS MUCH AS TWO TO THREE PER HOUR EXTRA.

CAPCOM OKAY, COPY THAT.

SC IT MIGHT BE WORTHWHILE TO HAVE SOMEBODY
WATCH IT. WE ARE IN AUTO AT THIS TIME.

CAPCOM ROGER, I UNDERSTAND, AND READY ON THAT
CSM NAV VECTOR WHENEVER YOU'RE READY TO COPY.

SC COMING UP. STAND BY. GO.

CAPCOM OKAY. CSM NAV 71 122 PLUS 00 PLUS 00
21 01605 00001 74611 57774 13503 367773 04434 02252 52655
65527 66107 55530 11372 22031 MINUS 5170 25200. THE NAV
CHECK 121300000 MINUS 3049 PLUS 07891 1515.

SC ROGER, READ BACK FOLLOWS: CSM VERB 71
122 PLUS 00 PLUS 00 2101605 00001 74611 57774 13503 36773
04434 02252 52655 65527 66107 55530 11372 22301 05170 25200
OVER.

CAPCOM ROGER COPY.

SC NAV CHECK READ BACK: 12130 4 BALLS MINUS
3049 PLUS 07891 1515. OVER.

CAPCOM APOLLO 7 HOUSTON 1 MINUTE LOS CARNARVON,
GUAM AT 121 PLUS 47.

SC ROGER. WE'VE GOT SOME STARS IN SIGHT.
WE MAY DO A 52 AFTER ALL.

CAPCOM ROGER.

PAO AND THAT WRAPS UP THE CARNARVON PASS,
AND THE SPACECRAFT IS PROCEEDING DUE NORTH OF AUSTRALIA
IN A NORTHEASTERLY DIRECTION, AND WE SHOULD PICK UP IN

APOLLO 7 COMMENTARY, 10/16/68 GET: 1221500 (CDT: 12:19P) 392/1

CAPCOM APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.
APOLLO 7, HOUSTON.
SC GO JACK.
CAPCOM OKAY, DON, ON THIS SECOND LAND MARK, WE
CAN GIVE YOU A SHAFT TO HELP YOU OUT HERE; SHAFT WILL BE 008
AND YOUR TRUNION WILL BE 031; THIS WILL OCCUR WHEN YOUR
PITCH DOWN 10 DEGREES AND IN ORB RATE.
SC ROGER; UNDERSTAND, THANK YOU. JACK, I'M
GOING TO TRY TO (GARBLE); IT TURNS OUT THAT MY FIELD OF VIEW
IN THE TELESCOPE IS ONLY 38 DEGREES ANYWAY, SO I MIGHT AS
WELL GO AHEAD AND USE THE ROCKETS.
CAPCOM OKAY, REAL FINE.
SC I THINK THAT LAST TIME I WASN'T AWARE
THAT I NEEDED TO ROLL THE SPACECRAFT; I WAS WITH IT TO THE
SOUTH BUT IT WAS FOUND OUT THAT IT WAS OUT OF VIEW.
CAPCOM OKAY, COPY THAT.
SC GOT SOME NICE WEATHER DOWN THERE NOW JACK.
CAPCOM WEATHER WAS PRETTY GOOD WHEN I CAME IN
WALLY.
SC LOOKS GOOD FROM HERE. THERE'S JUST A SOLID
OVERCAST FOR A HURRICANE.
CAPCOM ROGER.
SC THERE'S A LITTLE BIT OF VORTEX WAY OUT
HERE. I'LL TAKE ONE SHOT AS WE'RE GOING INTO IT.
CAPCOM JUST MOVING NORTH TOWARD FLORIDA.
SC FRAME 89, FRAME 88 WAS APPROACHING HOUSTON,
FRAME 89 IS APPROACHING THE HURRICANE JUST NOW.
CAPCOM ROGER, COPY.
SC MAGAZINE "O". HOUSTON, APOLLO 7.
CAPCOM GO AHEAD.
SC ROGER; COULD YOU GIVE US THE SHAFT AND
TRUNION FOR THE THIRD LAND MARK AS WELL.
CAPCOM WILL DO. SHAFT 040, TRUNION 031.
SC ROGER. THERE'S SOME HIGH CIRRUS WAY
HIGH IN THE FORMS OF VORTEX SWEEPING FROM OUR LEFT TO OUR
RIGHT AND THEN COMING BACK AROUND TO THE NORTH, WHICH OF
COURSE IS THE CHARACTERISTIC PATTERN AND SOME SOLID STUFF
YOU CAN ALMOST SEE THE EYE IN THE CENTER OF IT. I'M TRYING
TO GET A PICTURE OF THAT NOW.
CAPCOM ROGER.
SC IT'S DEFINITELY A CIRCULAR PATTERN HERE.
GOING OVER THE EYE IN ABOUT ANOTHER, OH I'D SAY, IN ANOTHER
4 OR 5 SECONDS.
CAPCOM COPY.
SC I'LL TRY TO GIVE YOU A PRETTY GOOD EYE
LOCATION. STAND BY; MARK; THAT'S THE EYE. THAT'S A REAL
TIGHT REPORT ON YOU -
CAPCOM ROGER WALLY.

APOLLO 7 COMMENTARY, 10/16/68, GET: 1221500 (CDT: 12:19P) 392/2

SC GOOD WEATHER FROM HERE.
CAPCOM APOLLO 7, HOUSTON.
SC GO AHEAD JACK.
CAPCOM ROGER; AT THE TIME YOU READ OUT THE MARK,
WE GOT THE LATITUDE AND LONGITUDE AND WE HAVE PASSED IT ON
TO THE HURRICANE CENTER.
SC ROGER (GARBLE) FIRST ON MARK OF HURRICANES.
CAPCOM ROGER.
SC FAIR WEATHER. JACK, TELL THE CENTER TO
CENTER IT AWAY FROM THAT BOAT BASE.
CAPCOM ROGER; WILL DO WALLY.
SC TELL THEM TO GET OUT OF THE WAY NEXT
TUESDAY.
CAPCOM WE'LL DO THAT TOO.
SC ROGER.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1223800 (CDT 12:43P) 394/1

PAO APOLLO CONTROL HOUSTON. WE SHOULD HAVE
APOLLO 7 BY ASCENSION ANY MOMENT. LET'S LISTEN.
CAPCOM APOLLO 7, HOUSTON THROUGH ASCENSION.
SC (GARBLE)
CAPCOM ROGER, IT APPEARS THAT THE EVAPORATOR
IS DRIED OUT AGAIN.
SC HOUSTON, APOLLO 7.
CAPCOM ALRIGHT, GO AHEAD.
SC ARE WE GOING TO HAVE A TAPE WHEN WE LOSE
YOU HERE?
CAPCOM THAT'S AFFIRMATIVE, WALLY. HOW DID THE
LAST TWO LANDMARK TRACKING POINTS COME OUT?
SC TERRIBLE.
CAPCOM ROGER, COPY.
SC ON THE SECOND ONE, I RELIED ON ALL OPTICS
TO BRING IT IN WHEN IT GOT WITHIN 38 DEGREES, AND THE THING
NEVER MOVED OFF CENTER, SO AT THAT POINT I ATTEMPTED TO GO
FOR IT MANUALLY AND BY THE TIME I GOT OVER TO IT - I RECOGNIZED
IT, AND IT WAS GOING SO FAST THAT HIGH SPEED RESOLVE WOULDN'T
CATCH IT, IT GOT AWAY FROM ME. I FINALLY PICKED IT UP JUST AS IT
WENT OUTSIDE THE FIELD OF VIEW, BUT IT WAS TOO LATE TO GET
ANY MARKS. ON THE THIRD ONE, I LOADED IN THE DATA OF THE
LANDMARKS UP HERE, AND WHEN I WENT DOWN ON OPTICS, IT INDICATED
THAT THE TARGET WAS COMPLETELY OUTSIDE THE FIELD OF VIEW TO
THE NORTH. AFTER AWHILE, I SAW THE THING A LITTLE BIT TO
THE SOUTH, I THINK, WITH, RELATIVE (GARBLE).
CAPCOM ROGER, COPY.
SC NOW, THE NEXT TIME WE DO, I'M GOING TO
STICK TO THE (GARBLE) MODE, AS WE ORIGINALLY PLANNED AND
SEE IF THAT WORKS OUT BETTER.
CAPCOM OKAY.
CAPCOM APOLLO 7, HOUSTON. ONE MINUTE LOS
ASCENSION. TANANARIVE AT 122 PLUS 54.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1225407 (CDT 12:57P) 395/1

CAPCOM	APOLLO 7 HOUSTON THROUGH TANANARIVE.
SC	ROGER LOUD AND CLEAR.
CAPCOM	ROGER.
CAPCOM	APOLLO 7 HOUSTON 1 MINUTE LOS TANANARIVE,
CARNARVON AT 123 PLUS 09.	
SC	ROGER.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1231500 (CDT 1:20P) 396/1

PAO THIS IS APOLLO CONTROL HOUSTON 123 HOURS
15 MINUTES INTO THE FLIGHT. A FEW MINUTES AGO OVER CARNARVON
WE HEARD SOME INTERESTING OBSERVATIONS ON MEAL PLANNING,
AND ON THE TASTE OF THE MEALS, THE CALORIC COMMENTS, AND SOME
VERY PUNGENT COMMENTS FROM WALT CUNNINGHAM. LET'S LISTEN.

CAPCOM APOLLO 7 HOUSTON THROUGH CARNARVON.
SC ROGER, LOUD AND CLEAR.
CAPCOM YOU ARE LOUD AND CLEAR.
SC (GARBLED) PITCH DOWN. JACK, DO YOU
PUT THE PDC IN BALL NUMBER 01?
CAPCOM STAND BY.
SC (GARBLED) PERIGEE BY ANY MEANS. WE'RE
ABOUT 40 MINUTES AWAY FROM PERIGEE.
CAPCOM AFFIRMATIVE. APOLLO 7 HOUSTON, AFFIRMATIVE.
WE'D LIKE PDC ON BALL 01.
SC ROGER, YOU'VE GOT IT.
CAPCOM ROGER.
SC DO YOU HAVE ALL BANDS OR TDC?
CAPCOM TDC.
SC TDC.
SC JACK, THIS IS WALT, I'VE GOT A COMMENT
ON THIS FOOD YOU MIGHT PASS ON TO FRANK OR THOSE GUYS. THIS
HIGH CALORIE STUFF THAT'S GOT EVERYTHING ALL HIKED UP WITH
CALORIES IS JUST REALLY DOING SOMETHING TO US. IN ORDER TO
GET A LOT OF CALORIES IN A SMALL WAY EVERYTHING HAS BEEN
HIKED UP AND IT'S ALL GOT A SWEET TASTE. YOU THINK SOMETHING
TASTES REAL GOOD, BUT BY THE TIME YOU GET TO THE END OF THE
BAG YOU CAN'T REALLY LOOK IT IN THE EYE VERY WELL.
CAPCOM ROGER, I UNDERSTAND THAT.
SC (GARBLED) AND AS A RESULT THE FOOD WAS
RAISED IN CALORIC COUNT AND IT'S ALL SWEET (GARBLED)
CAPCOM ROGER.
SC YOU ALSO MIGHT PASS ON THAT CREW,
JACK, IN CASE THEY HAVEN'T SELECTED THEIR MENU YET, I HAD
A TENDENCY TO PICK OUT A MENU WITH INDIVIDUAL ITEMS LISTED
THAT I LIKED A LOT OUT OF THE SAMPLES. IF I HAD IT TO DO
OVER AGAIN I WOULD TRY TO MAKE SURE I HAD A WIDER VARIETY
OF ACCEPTABLE FOODS.
CAPCOM OKAY, COPY THAT, WALT. WE ARE ABOUT
30 SECONDS LOS CARNARVON, GUAM AT 12 PLUS 19.
SC DO YOU WANT TO LEAVE THIS ON GDC BALL 01?
CAPCOM AFFIRMATIVE, WE'LL PICK IT UP AT GUAM.
SC OKAY.
CAPCOM WALLY, IS IT ABOUT THE SAME TORQUE THAT
YOU'VE OBSERVED PREVIOUSLY?
SC NO, WE'VE GOT (GARBLED) JUST WANTED TO
SEE IF WE CAN GET SOME DATA, THEN WE'LL GO BACK AND REALINE
THE GDC.
CAPCOM ROGER.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1232000 (CDT 01:25P) 397/1

PAO THIS IS APOLLO CONTROL HOUSTON 123
HOURS 20 MINUTES. WE SHOULD BE ACQUIRING VIA GUAM JUST ANY
SECOND.

PAO THE GUAM DATA HAS JUST FLASHED ON
OUR SCREENS. THE TELEVISION DISPLAYS HERE, I NOTICE THE
CABIN OUT THERE IS RUNNING 69 DEGREES TODAY.

CAPCOM ROGER. WALT, I WOULD LIKE TO HAVE
YOU TURN YOUR S-BAND OX TAPE SWITCH OFF.

SC OFF.

CAPCOM ROGER. WALLY, WE NOTICED THAT THE
TAILOFF VALUE THAT IS PRESENTLY LOADED INTO THE -

SC WHAT WAS THE ANSWER, JACK, TO YOUR
READING OUR TV SWITCH ON A WHILE BACK WHEN IT WAS OFF? DID
YOU FIND OUT ABOUT THAT?

CAPCOM ROGER. WALT, IT WAS THE TAPE SWITCH
THAT WE OBSERVED ON TELEMETRY ON THE GROUND AND WE THOUGHT
IT WAS THE TV SWITCH.

SC OKAY, UNDERSTAND. DID OUR TRANSPONDER
SECONDARY COMPLETELY FLOP?

CAPCOM STAND BY. APOLLO 7, ON THE SECONDARY
TRANSPONDER, THAT'S NOT DEFINITE YET, BUT WE DON'T WANT TO
RESELECT AT THIS TIME.

SC UNDERSTAND.

CAPCOM OKAY AND SOMETHING ELSE THAT WE WOULD
LIKE TO DISCUSS HERE. THE TAILOFF VALUE THAT IS PRESENTLY
LOADED IN THE COMPUTER FOR CMC IS NOT LARGE ENOUGH FOR WHAT
WE HAVE OBSERVED ON YOUR BURNS. WE WOULD LIKE TO LOAD A
NEW VALUE INTO THE COMPUTER WITH THE FOLLOWING PROCEDURE.
ARE YOU READY TO COPY?

SC WAIT ONE.

SC ROGER, JACK. GO AHEAD WITH YOUR PRO-
CEDURE.

CAPCOM OKAY. VERB 21, NOUN 01, ENTER, 3003,
ENTER, 74 ENTER. THAT'S IT.

SC ROGER. IS THAT IT?

CAPCOM THAT'S IT.

SC (GARBLE)

CAPCOM COULD YOU SAY AGAIN, DONN. YOU WERE
CUT OUT THERE JUST AS YOU GAVE IT.

SC ROGER. VERB 21, NOUN 01, 3003 THEN
74.

CAPCOM ROGER, THAT IS CORRECT.

SC JACK, (GARBLE)

CAPCOM SAY AGAIN, 7.

SC OKAY, NO STRAIN.

CAPCOM ROGER.

SC JACK, THIS IS CMP.

CAPCOM GO AHEAD, DONN.

SC ON THESE LANDMARKS TOMORROW I SEE.

APOLLO 7 COMMENTARY, 10/16/68, GET 1232000 (CDT 01:25P) 397/2

SC WE'VE GOT THREE PASSES SCHEDULED,
DON'T WE?
CAPCOM AFFIRMATIVE.
SC OKAY. I WOULD LIKE TO SUGGEST THAT
WE DEVOTE ONE PASS, OR AT LEAST PART OF A PASS TO DOING SOME
UNKNOWN LANDMARKS. I FOUND THAT UP HERE IN FLIGHT THAT IT
IS FAIRLY EASY TO TRACK ANY GIVEN OBJECT ON THE GROUND ONCE
YOU SEE IT. THE TROUBLE WITH THESE KNOWN LANDMARKS IS THAT
THEY ARE DAMN HARD TO BRING IN IN THE FIRST PLACE, BECAUSE
EITHER THE AUTO OPTICS DOESN'T WORK OR THEY ARE OUTSIDE THE
FIELD OF VIEW SOMETIMES. I HAVE FOUND THAT YOU CAN TRACK
WITH THE SEXTANT FAIRLY EASILY. SO HOW ABOUT RUNNING THAT
AROUND WITH THE G&N PEOPLE AND SEE IF THEY ARE AGREEABLE.
WE DON'T HAVE ANYTHING IN THE FLIGHT PLAN AT ALL ABOUT
CHECKING UP ON LANDMARK PERFORMANCE.
CAPCOM ROGER, COPY THAT. WE WILL TOSS IT
AROUND HERE AND LET YOU KNOW.
CAPCOM APOLLO 7, HOUSTON.
SC GO AHEAD, JACK.
CAPCOM ROGER. WE WOULD LIKE TO ZERO SOME
ATTITUDE ERRORS BY TAKING THE B MAIN SWITCHES AND GOING TO
RATE 2 MOMENTARILY, AND THEN BACK TO ADD 1, RATE 2.
SC WE ARE NOT GETTING MUCH TORQUING THIS
TIME, SO THERE IS NOT MUCH SENSE SPENDING - THERE ISN'T
ANY INPUT ON THIS PARTICULAR AREA.
CAPCOM ROGER. WE JUST THOUGHT WE WOULD WATCH
IT AS YOU WENT THROUGH PERIGEE.
SC YES. I THINK WHAT WE WILL DO IS TRY
TO GIVE IT TO YOU ON THE REST PASS WHERE WE ARE TRACKING,
BECAUSE WE ARE GOING TO GO BACK THROUGH IT AGAIN.
CAPCOM ROGER.
SC BUT WE ARE GOING TO FACE UP TO PERI-
GEE.
CAPCOM ROGER, COPY THAT. YOU GOT 1 MINUTE
LOS GUAM, HAWAII AT 123 + 34.
END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1233500 (CDT 1:40P) 398/1

PAO THIS IS APOLLO CONTROL, 123 HOURS,
35 MINUTES. THROUGH HAWAII, WE'RE HAVING THIS CONVERSATION.
CAPCOM APOLLO 7, HOUSTON THROUGH HAWAII.
SC ALOHA.
CAPCOM ROGER, WE WOULD LIKE TO - IF YOU'RE
NOT BUSY WITH THE COMPUTER, WE WOULD LIKE TO SEND YOU AN
UPDATE.
SC GO AHEAD. WAIT, HOLD IT A SECOND. YOU
HAVE GOT IT.
CAPCOM OKAY, COMING UP. I'M READY WITH IT NOW,
CHECK WHEN YOU ARE READY TO COPY.
SC GO AHEAD.
CAPCOM ROGER. 128300000 MINUS 0266 MINUS 12
MINUS 400 NINER, NINER, NINER.
SC ROGER. 128300000 MINUS 0266 MINUS
0955.
CAPCOM RIGHT, AND ON THAT - THE PROCEDURES THAT
I HAVE YOU FOR LOADING A DIFFERENT DELTA-V TAILOFF IN THE
COMPUTER. AFTER YOU GET THAT DONE, I'D LIKE YOU TO READ IT
OUT, DOWN AND CHECK IT AND IF YOU NEED THE PROCEDURES TO DO
THAT, I HAVE IT.
SC ROGER, JACK. THIS IS A STANDARD ERASABLE
UPDATE. I'LL DO IT WHEN YOU GET THAT UPLINKING.
CAPCOM OKAY, THERE'S NO HURRY ON IT.
SC JACK, I WOULD LIKE TO MAKE A COMMENT
OR TWO REGARDING THIS STAR HORIZON BUSINESS.
CAPCOM OKAY, GO AHEAD.
SC WELL, I'VE EXAMINED THE HORIZON IN THE
TELESCOPE AND SEXTANT AND - ALTERNATE LIGHT CONDITIONS
VARYING FROM BOLD DARKNESS TO BROAD DAYLIGHT, WITH THE SUN
OVERHEAD, AND I CAN FIND NO RELIABLE LINE OR BAND OR ANYTHING
IN AIR THAT'S REPEATABLE AT ALL DISTANCE SUN ANGLES. FURTHER-
MORE, I KNOW THAT STARS GENERALLY ARE NOT VISIBLE DURING THE
DAYTIME. ABOUT THE ONLY WAY YOU CAN SEE IT, IS TO GET ALL
OF THE OPTICS TO PULL ONE INTO THE SEXTANT FOR YOU. OBVIOUSLY,
IF YOU'RE DOING P-23 YOU CAN'T USE AUTO OPTICS TO PULL THE STAR
IN THERE, SO THE CHANCES OF THIS THING EVER WORKING OUT ARE
PRETTY SLIM, I GUESS.
CAPCOM ROGER, COPY THAT.
SC ROGER, I SUGGEST THAT WE TRY ONE RUN OF THIS
JUST TO PROVE THAT IT WON'T WORK AND THEN REGROUP AND PLAN TO
DO SOME STAR TO LUNAR LANDMARK BUSINESS A LITTLE LATER ON
IN THE FLIGHT SOMEWHERE.
CAPCOM ROGER, WE COPY THAT.
SC IT'S KIND OF INSULTING TO REALIZE THAT
THE SAME LIGHT BANDS AND HORIZONS ARE THERE THAT WE REPORTED
BACK IN MERCURY DAYS.
CAPCOM ROGER.
SC JACK, DO YOU KNOW YOUR UPDATE?
CAPCOM OUR ASSEMBLY COMPUTER IS THE SAME AS
APOLLO 7, HOUSTON.

APOLLO 7 COMMENTARY, 10/16/68, GET: 1233500 (CDT 1:40P) 398/2

SC GO AHEAD.
CAPCOM DONN, ON THIS STAR HORIZON CITING HERE. IF YOU'RE AT THE ROLL, PITCH, AND YAW ATTITUDES THAT WE GAVE YOU AND HAVE THE TRUNNION AND SHAFT VALUES THAT WE GAVE YOU ALSO SET IN. THE HORIZON SHOULD BE VISIBLE IN THE LANDMARK LINE OF SIGHT AND THE STAR VISIBLE IN THE STAR LINE OF SIGHT. AND APOLLO 7, AS WE LOSE YOU HERE OVER HAWAII, WE'RE GOING TO TRY ARIA ON S-BAND. DO YOU WANT TO TURN UP YOUR S-BAND VOLUMN UP. I THINK WE MAY HAVE BETTER COMM WITH ARIA THAN HUNTSVILLE.
COMM ARIA 3, GO REMOTE.
CAPCOM APOLLO 7, HOUSTON THROUGH ARIA 2.
APOLLO 7, HOUSTON THROUGH ARIA 2. APOLLO 7, HOUSTON.
SC THIS IS 7.
CAPCOM DONN, WE LOST YOU JUST OVER HAWAII, DID YOU COPY MY REMARKS ON THE STAR HORIZON CHECK?
SC (GARBLE)
CAPCOM APOLLO 7, HOUSTON.
SC GO AHEAD.
CAPCOM YOU'RE LOUD AND CLEAR. DONN, WE HAD AN LOS THROUGH HAWAII. DID YOU - WERE YOU ABLE TO COPY MY REMARKS ON THE STAR HORIZON CHECK?
SC IT'S ALL HERE, JACK.
CAPCOM OKAY.
SC WE READ YOU.
CAPCOM REAL FINE.
CAPCOM WALLY, WE LOST - LOS HAWAII. WERE YOU - DID YOU GET MY COMMENTS TO TURN UP S-BAND. WE WERE TRYING TO GET ARIA 3 ON S-BAND.
SC NEGATIVE, WE MISSED THAT. I DID HEAR YOU JUST BEFORE THIS LAST CALL. YOU TRIED TO TALK TO DONN AGAIN AND CAME UP ON S-BAND.
CAPCOM OKAY, ARIA WORKS SO GOOD DOWN THERE IN AUSTRALIA ON S-BAND THAT WE WERE GOING TO TRY AND USE ARIA INSTEAD OF HUNTSVILLE, TO GET A LITTLE BETTER COMM.
SC ROGER, WE'LL TRY THAT A COUPLE MORE TIMES.
CAPCOM OKAY, REAL FINE.
SC WHAT'S THE NEXT TIME?
CAPCOM WE WILL HAVE ARIA 3 THE NEXT PASS OVER - IN BETWEEN - ABOUT THE SAME PLACE.
SC I AGREE.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1234700 (CDT: 1:52P) 399/1

SC WE GOT OUR ENTRY IN THE FLIGHT PLAN ROGER.
SC HEY JACK, WE ARE APPROACHING PERIGEE AND
I OUGHT TO GIVE YOU GDC ON FALL NUMBER 1.

CAPCOM ROGER; COPY.

SC WE'RE NOT PITCHED UP TOO MUCH; LOCAL
VERTICAL; IT'S ABOUT 33 - 34 DEGREES.

CAPCOM OKAY.

SC THIS IS A LONG PASS; THEY MIGHT GET UPSET
WITH THIS THING. YOU'VE GOT LOCAL VERTICAL ON GDC UNDER
(GARBLE)

CAPCOM COPY THAT.

SC AND YOU CAN MAKE NOTE OF THE PITCH
THRUSTER IS WORKING.

CAPCOM ROGER.

SC TIGHT DLAD BAND TO GET THIS DTO DONE.

CAPCOM ROGER.

SC WITH LIMIT CYCLE ON. (GARBLE) HOUSTON,
APOLLO 7.

CAPCOM GO AHEAD 7.

SC (GARBLE) ON THAT EXPERIMENT.

SC I STOPPED (GARBLE) THERE JACK.

CAPCOM ROGER, WALLY.

SC (GARBLE) ARE OFF.

CAPCOM OKAY.

SC (GARBLE) PULLING UP INTO A (GARBLE) TO
CLIMB AND SEE WHAT HAPPENS HERE SOON. WATCH THE PITCH RATE.

CAPCOM ROGER; 1 MINUTE LOS TEXAS; TANANARIVE AT
134 PLUS 27..

PAO AT 123 HOURS AND 55 MINUTES WE HAVE A
LOSS OF CONTACT WITH THE SPACECRAFT OVER HONDURAS, AND I
WOULD SAY IN CENTRAL AMERICA. OF INCREASING INTEREST AS
WE NEAR THE MIDPOINT OF THE MISSION IS THE RETRO FIRE CLOCK.
ALL THE WHILE IT HAS BEEN COUNTING AND IT NOW READS 135 HOURS
43 MINUTES TO RETROFIRE. ALMOST AS LARGE A NUMBER AS OUR
ELAPSED CLOCK AT 123 HOURS, 56 MINUTES. THIS IS APOLLO
CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 124:27:00 (CDT 02:33P) 400/1

PAO THIS IS APOLLO CONTROL HOUSTON 124 HOURS 27 MINUTES INTO THE MISSION. WE ARE ON THE 78TH REVOLUTION AROUND THE EARTH AND WE ARE ABOUT TO TAG UP WITH APOLLO 7 VIA TANANARIVE. OUR ORBITAL ELEMENTS ARE THUSLY: PERIGEE 90.2 MILES, APOGEE 157.3. THE ORBITAL PERIOD IS 89 MINUTES 04 SECONDS.

CAPCOM DONN, WE WOULD LIKE TO WAIT UNTIL GUAM TO GET YOUR COMMENTS ON THE P23, ON THE RESULTS OF P23.

SC OKAY. HOW SOON IS THAT?

CAPCOM GUAM ACQUISITION IS 124 + 54, UNLESS YOU ARE GOING TO BE ASLEEP THEN.

SC (GARBLE)

CAPCOM OKAY. WHY DON'T YOU GIVE THEM TO US NOW, THEN? WE DON'T WANT TO INTERFERE WITH YOUR SLEEP CYCLE.

SC (GARBLE) GET A LITTLE TAPE AND DUMP IT.

CAPCOM OKAY, THAT IS FINE.

SC (GARBLE)

CAPCOM OKAY WALLY. WE ARE HAVING A HARD TIME READING YOU HERE AT TANANARIVE. PERHAPS YOU COULD PUT YOUR COMMENTS ON THE TORQUING AS YOU WENT THROUGH PERIGEE ON THE ESE TAPE, AND WE WILL DUMP THAT TOO.

SC (GARBLE)

CAPCOM I COULDN'T PICK THAT UP. WE WILL DUMP THAT AT THE NEXT POSSIBLE TIME.

SC ROGER.

CAPCOM APOLLO 7, HOUSTON.

SC GO AHEAD.

CAPCOM ROGER. ON THE TAPE THAT IS PRESENTLY THERE, DO YOU HAVE ANY HIGH BIT RATE RECORDINGS ON IT?

SC NEGATIVE.

CAPCOM ROGER, COPY THAT. WE WILL BE DUMPING STARTING AT MERCURY AND GUAM AND TO HAWAII IF NEEDED.

SC ROGER. WHEN DO WE LINE S-BAND UP FOR THE ARIA CALL?

CAPCOM THE S-BAND WITH ARIA WILL BE AFTER HAWAII.

SC ROGER.

CAPCOM APOLLO 7, HOUSTON. ONE MINUTE LOS TANANARIVE. THE MERCURY AT 124 + 51.

SC OKAY JACK, WE WILL TALK TO YOU THEN.

CAPCOM ROGER. I'M GOING OFF DUTY. I'M GOING TO GIVE YOU TO RON.

SC (GARBLE)

CAPCOM IT WAS A GOOD SHIFT TODAY, A GOOD SHOW.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1245300 (CDT 2:58P) 401/1

PAO THIS IS APOLLO CONTROL 124 HOURS 53 MINUTES
AND WE'RE IN TOUCH WITH APOLLO 7 AT THE MERCURY NOW. HERE
IS HOW IT SOUNDS.

CAPCOM APOLLO 7 HOUSTON THROUGH MERCURY.

SC GOOD EVENING, RON.

CAPCOM GOOD EVENING.

SC I WAS TALKING TO JACK ABOUT THIS PERIGEE
TORQUE PROBLEM. I THINK THAT'S PROBABLY A GOOD NAME FOR IT.
AND WE'D GONE ACROSS THE - WELL, I'LL TELL YOU ABOUT THE
WEST COAST GOING DOWN OVER MEXICO SOUTH. THAT'S OVER THE
PANAMA CANAL ZONE ON THE LAST PASS.

CAPCOM ROGER.

SC WE'RE SET UP FOR A STAR HORIZON CHECK.
WE'RE LOCKED UP PRETTY TIGHT ON 356 DEGREES INERTIAL ZERO
DEGREES PITCH. THE DEAD BAND WAS REAL TIGHT, THIS WAS IN
THE SCS (CUT OUT) (THEN REPEATS) THE DEAD BAND WAS REAL
TIGHT, THIS WAS IN THE SCS ATTITUDE HOLD BAND AND I'M IN
DEAD BAND LOWERAGE LIMIT CYCLE ON. AS SOON AS THE TEST WAS
TERMINATED I TURNED ALL SCS CHANNELS OFF TO CONSERVE FUEL,
AND THEN I HAD NO PITCH RATE, NO HOLD RATE, NO YAW RATE ON
THE NEEDLES. THEN ABOUT - I'D SAY 10 MINUTES - WE WENT TO
PERIGEE, IT WAS ACTUALLY TO A 121 HOURS AND 51 MINUTES I
THINK IT WAS - 123 HOURS 51 MINUTES. WE START PITCHING UP
TO ABOUT 3/10 OF A DEGREE PER SECOND AS WE APPROACH PERIGEE,
AND THEN IT WOULD START PITCHING DOWN, AND ACTION WENT
BACK DOWN TO ZERO AGAIN IN RATE. AND WHEN WE ACTUALLY
WENT TO DRIFTING FLIGHT THE PITCH WAS ABOUT 35 DEGREES UP,
PITCH UP LOCAL VERTICAL, IT WENT DOWN TO ABOUT MINUS 40 DEGREES
OR (GARBLED) 20 DEGREES LOCAL VERTICAL. THAT'S WHERE THE
RATE STOPPED AND THEN IT STARTED BACK UP SLIGHTLY. DURING
THE PITCH, TORQUE WAS JUST IN PITCH IN THAT CASE. DURING
THE PITCH, TORQUE WAS JUST IN PITCH IN THAT CASE.

CAPCOM ROGER, WE COPY.

SC THAT'S A NEW ONE THAT I'VE NEVER HEARD
OF BEFORE. WE SUSPECTED SOMETHING LIKE THAT WITH THE S-IVB
AND EVEN WITH THE AGENA, BUT THIS REALLY SHOWED IT TO US.

CAPCOM ROG. SURE DID.

SC ANOTHER INTERESTING THING WE SAW AS WE WENT
DOWN THROUGH SOUTH AMERICA, WE'D SEEN THE HURRICANE EARLIER
TODAY, WITH THAT OVER SIGHT. YOU'D COULD SEE THE EYE OF IT
AS A LITTLE DEPRESSED DIP IN THE CENTER OF THE HURRICANE.

CAPCOM ROGER.

SC PAUL, WE VIEWED THE THUNDERHEADS AS WE
WENT OVER SOUTH AMERICA AND THE FLAT TOPS ARE RATHER LARGE
ONES, AND THEY HAD LITTLE DEPRESSIONS IN THE CENTER, JUST
LIKE THE HURRICANE, AND THEN WE REVERSED THE FLOW PATTERN
ON THE FLAT TOPS, WHICH YOU WOULD EXPECT IN THE SOUTHERN
LATITUDE, THE REVERSE CORIOLIS EFFECT.

CAPCOM THAT IS INTERESTING.

APOLLO 7 COMMENTARY, 10/16/68, GET: 1245300 (CDT 2:58P) 401/2

SC I'D NEVER HEARD OF THAT EFFECT BEFORE
YOU KNOW, ON THE TOP OF THE THUNDERSTORMS.
CAPCOM I HADN'T EITHER.
SC ALL OF DONN'S EXPERIMENTS BOMBED.
CAPCOM ROGER.
SC IF THE HORIZON IS AS GOOD AS EVERYBODY
SAYS IT IS, WELL WE'LL KNOW (GARBLE) THE STORM'S CENTER IS
EXACTLY THE WAY IT IS RIGHT NOW. I'M SORRY TO DEFINE THE
STAR TO HORIZON CHECK DIDN'T WORK. THE LANDMARK OPTICAL
TRACKING DIDN'T WORK. WE TRIED TO USE ALL THE OPTICS AND
THEY DID NOT BRING IT IN. TOMORROW WE'LL TRY (TOO MUCH
STATIC TO BE HEARD)
CAPCOM I MISSED YOUR (GARBLE) STAR HORIZON
DIDN'T WORK, AND EVERYTHING AFTER THAT, WALLY.
SC THIS IS APOLLO 7.
CAPCOM APOLLO 7, HOUSTON. GO.
SC ROG. DID YOU GET THE LAST?
CAPCOM NEGATIVE, I MISSED EVERYTHING AFTER
DONN'S HORIZON NOT GOT AND THE STAR HORIZON DIDN'T WORK.
SC THAT'S CORRECT AND THE PROGRAM 23 DID
NOT WORK AND I WANT DONN TO WORK ON THE RECORDER AND PARTI-
CULARLY ON THE SUN TEST. WE WANT THAT PLAN ON THE GROUND AND
I THINK THEY WANT IT UP HERE.
CAPCOM ROGER.
SC THERE'S ALWAYS A QUESTION OF USING UP
FUEL ON IT. WE'RE GOING TO TRY TOMORROW UNKNOWN LANDMARKS,
KNOWN LANDMARKS DID NOT WORK, THE LITTLE OPTICS DID NOT
BRING THEM IN AND THEY'RE HARD TO FIND. PARTICULARLY IN
THE EARTH ORBIT POSITION.
CAPCOM ROGER, WE'RE WORKING UP THE CHART NOW,
FOR YOU FOR TOMORROW.
SC VERY GOOD. HOW WAS THE DAY BACK IN
HOUSTON?
CAPCOM NOT MY DAY HERE.
SC VERY GOOD, WHAT SO BAD?
CAPCOM APOLLO 7, APOLLO 7, HOUSTON OPPOSITE
OMNI.
SC ROGER. WE SPEND OUR QUIET EVENINGS IN
UH, AT THIS TIME, PREPARING OUR NEXT TV SHOW AND WE'LL HAVE
ONE FOR YOU TOMORROW.
CAPCOM VERY GOOD.
SC HAVE YOU FINALLY GOT THE CHART UPDATED?
CAPCOM ROGER, STAND BY. AND WALT, BIOMED TO
YOUR POSITION.
SC ROGER. WE HAVE BEEN WATCHING THE WATER
BOILER PRETTY CLOSE. WE HAD IT GOING DRY ON US, NUMEROUS
TIMES FOR SEVERAL DAYS, AND IT SEEMS TO HAPPEN OVER A PERIOD
OF ABOUT 4 SECONDS (GARBLE)

APOLLO 7 COMMENTARY, 10/16/68, GET: 1245300 (CDT 2:58P) 401/3

CAPCOM ROGER, YOU SAY IT SEEMS TO HAPPEN OVER
A PERIOD OF 4 SECONDS?

SC OH, ABOUT 40 SECONDS TIME, IF YOU GO FROM
OPERATING NORMALLY TO A LOW ON THE STEAM PRESSURE ZERO.

CAPCOM ROGER, WE'LL KEEP A CLOSE EYE ON IT THEN.

CAPCOM APOLLO 7, HOUSTON, ABOUT 30 SECONDS LOS
HAWAII AT 09. LEAVE YOUR MAP UPDATA AND BLOCK DATA AT THAT
TIME.

SC ROGER, AND WE WON'T NEED THE RIGHT
ASCENSION RON. WE REALLY DON'T HAVE ANY USE OF IT SO, UNLESS
WE ASK FOR IT, WHY DON'T WE JUST SKIP THOSE (GARBLE)

CAPCOM OH, ROG. I CONCUR.

PAO THIS IS APOLLO CONTROL. 125 HOURS 1 MIN-
UTE. GUAM HAS LOS. DURING THE PASSES AT THE MERCURY AND
GUAM, WALLY SCHIRRA DISCUSSED THE - WHAT HE TERMED PERIGEE
TORQUE. THAT'S THE PITCH MOMENTS THAT THE SPACECRAFT SEEMS
TO GET AT PERIGEE. IN THE DISCUSSION OF THAT, HE DESCRIBED
SOME OF THE WEATHER NEAR THE HURRICANE. HE REPORTED THE
STAR HORIZON SIGHTINGS DIDN'T WORK, AND INDICATED THAT THE
CREW WOULD SPEND A LITTLE TIME THIS EVENING PLANNING TOMORROW'S
TV SHOW. THE NEXT STATION TO ACQUIRE APOLLO 7 WILL BE HAWAII.
AT 125 HOURS 9 MINUTES, THIS IS MISSION CONTROL, HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1260000 (CDT 4:03P) 402/1

PAO THIS IS APOLLO CONTROL AT 126 HOURS. WE HAVE THE TAPE FROM THE HAWAII AND THE HUNTSVILLE PASS. WE'LL FOLLOW THAT WITH THE TANANARIVE PASS. WE'LL PLAY THE TAPE NOW.

CAPCOM APOLLO 7, HOUSTON, HAWAII
SC ROGER, RON. I'M READY FOR THE COPY OF THE UPDATE.

CAPCOM ROGER, YOUR MAP UPDATE. REV 79, GET: 124 PLUS 47 PLUS 02. LONGITUDE: 103.3 EAST.

SC ROGER, READY TO COPY BLOCK DATA.
CAPCOM ROGER. APOLLO 7, HOUSTON, BLOCK DATA NUMBER 14 081 DASH 3 ALPHA PLUS 312 PLUS 1360 127 PLUS 45 PLUS 113382 082 DASH 3 ALPHA PLUS 302 PLUS 1360 129 PLUS 21 PLUS 343524 083 DASH 3 BRAVO PLUS 253 PLUS 1340 130 PLUS 53 PLUS 562856 084 DASH CHARLIE CHARLIE MINUS 076 PLUS 1700 132 PLUS 33 PLUS 151858 085 DASH ALPHA CHARLIE PLUS 072 MINUS 0220 133 PLUS 19 PLUS 174077 086 DASH 2 CHARLIE PLUS 184 MINUS 0250 134 PLUS 53 PLUS 553706. HOUSTON, OVER.

SC I DIDN'T COPY THE LAST THREE. WILL YOU GO THROUGH THAT AGAIN?

CAPCOM ROGER. AREA 086 DASH 2 CHARLIE PLUS 184 MINUS 0250 134 PLUS 53 PLUS 553706. OVER.

SC ROGER. READS AS FOLLOWS: 081 DASH 3 ALPHA PLUS 312 PLUS 1360 127 PLUS 45 PLUS 113382 082 DASH 3 ALPHA PLUS 302 PLUS 1360 129 PLUS 21 PLUS 343524 083 DASH 3 BRAVO PLUS 253 PLUS 1340 130 PLUS 53 PLUS 562856 084 DASH CHARLIE CHARLIE MINUS 076 PLUS 1700 132 PLUS 33 PLUS 151858 085 DASH ALPHA CHARLIE PLUS 072 MINUS 0220 133 PLUS 19 PLUS 174077 086 DASH 2 CHARLIE PLUS 18 DIDN'T GET THE LAST NUMBER MINUS 0250 134 PLUS 53 PLUS 553706. OVER.

CAPCOM ROGER. YOUR LATITUDE FOR AREA 086 DASH 2 CHARLIE IS PLUS 184.

SC ROGER. PLUS 184. WALLY'S GOT A FAILURE TO REPORT ON HIS HARNESS. HE'S GOT ONE LEAD COMING LOOSE HE PUT IT TOGETHER THE LAST TIME AND TAPED IT TO KEEP IT THERE AND APPARENTLY IT'S NOW IN A STATE OF FAILURE DOWN WHERE IT GOES INTO THE BODY CONNECTOR AT (GARBLE) CONDITIONER, AND HE WANTS TO KNOW CAN THEY RECEIVE DATA ON HIM WITH ONLY HIS THREE MAIN SENSORS ON IT.

CAPCOM ROGER. WHAT'S THE COLOR OF THE SIGNAL CONDITIONER THAT THERE'S A PLUG THAT IT'S GOING INTO? THE WHITE ONE OR THE YELLOW ONE?

SC IT'S THE LOWER EXTERNAL LEAD.

CAPCOM ROGER, STAND BY.

SC IT'S THE BLUE SIGNAL CONDITIONER.

CAPCOM GUAMS SIGNAL LOS.

CAPCOM APOLLO 7, HOUSTON. ROGER. REAL WEAK, WALT, WE CAN WORK UP A SWAP OF THE SIGNAL CONDITIONERS OR THE LEADS GOING TO THE SIGNAL CONDITIONERS AND WE'LL TRY TO PASS

APOLLO 7 COMMENTARY, 10/16/68, GET: 1260000 (CDT 4:03P) 402/2

CAPCOM THAT UP TO YOU OVER TANANARIVE.
SC OKAY, THANK YOU.
CAPCOM SORRY, ABOUT THAT.
SC ROGER, THANK YOU.
SC THIS IS APOLLO 7. HOW DO YOU READ ME,
RON.
CAPCOM APOLLO 7, HOUSTON. WE'RE READING YOU
THROUGH HUNTSVILLE NOW. WE HAD ARIA JUST BETWEEN HAWAII AND
HUNTSVILLE. WHEN YOU WERE READING BACK ON THE BLOCK DATA
AND IT WAS GOOD AT THAT TIME.
SC (TOO MUCH STATIC TO BE HEARD)
CAPCOM APOLLO 7, HOUSTON. DID YOU CALL?
SC TAKE IT, ROGER, (GARBLE)
CAPCOM ROGER. ABOUT 1 MINUTE TO LOS NOW AT
TANANARIVE AT 01.
SC ROGER. DID YOU CATCH OUR TV PASS TODAY?
CAPCOM AFFIRMATIVE, AND A GOOD ONE AGAIN. THE
QUALITY WASN'T QUITE AS GOOD AS IT WAS THE OTHER 2 DAYS.
I'VE GOT SOME DOPE ON THAT ALC SWITCH I'LL TRY TO BACK UP TO
YOU SOMETIME THIS EVENING.
SC OKAY, IT NEVER SEEMS TO WORK AS GOOD WITH
THE ALCS.
CAPCOM APOLLO 7, HOUSTON THROUGH TANANARIVE.
SC ROGER, RON, HOW DO YOU READ?
CAPCOM NOT TOO BAD THIS TIME, WALT. HAVE A
LITTLE QUESTION ON THE CHLORINATION. HAVE YOU CHLORINATED
YET?
SC NO, AND IT'S NOT OUR INTENTION TO CHLOR-
INATE TODAY, WE CHLORINATED YESTERDAY. YOU DON'T HAVE ANY
OBJECTIONS TO CHLORINATING EVERY OTHER DAY, DO YOU?
CAPCOM ROG. I UNDERSTAND YOU'RE INTENT ON THE
THING. DO YOU STILL HAVE A BAD TASTE IN IT? IS THIS THE
REASON?
SC IT'S JUST NOW TRYING TO (GARBLE) ABOUT
COLD AND THE WATER HAS TASTED HORRIBLE (GARBLE) YOU KNOW LIKE
TRYING TO DROWN THE COLD BY DRINKING IT (GARBLE) AND WHEN
WE CHLORINATE THE TASTE OF IT AFTERWARD IS VERY BAD FOR
SEVERAL HOURS AND IT'S NOT REALLY GOOD FOR A BAD COLD.
CAPCOM OKAY, WE UNDERSTAND, AND DO NOT CHLORINATE
TODAY. WE'LL PASS IT TODAY AND CHLORINATE TOMORROW.
SC OKAY, VERY GOOD, I THINK THAT'S ABOUT
(GARBLE) WE'LL CATCH IT AND CHLORINATE TOMORROW. GOT TWO
QUESTIONS FOR YOU RON, AND THAT'S ABOUT IT.
CAPCOM SAY IT AGAIN.
SC WHAT IS THE PRECISE INCLINATION ABOUT
A SECONDARY REACTIVATOR CHARGE UPDATE AND FOR RCS DEORBIT
ONBOARD?
CAPCOM ROGER. WHAT IS THE PRECISE INCLINATION
OF YOUR ORBIT? IS THAT WHAT YOU SAID?

APOLLO 7 COMMENTARY, 10/16/68, GET: 1260000 (CDT 4:03P) 402/3

SC RIGHT, AND WALLY WOULD LIKE TO HEAR THE
(GARBLE) BIOMED SENSORS (GARBLE) SHOOT IT UP AGAIN.
CAPCOM ROGER, WE'LL GET YOUR INCLINATION ON
YOUR BIOMED SENSORS. WALT, YOUR INCLINATION IS 31.25.
SC ROGER.
CAPCOM AND ON YOUR BIOMED SENSORS, WALT, WE WANT
TO USE - OR USE THE TWO GOOD ONES IN THE MIDDLE OF YOUR CHEST
AND THOSE TWO GOOD ONES WILL HAVE TO BE CONNECTED TO THE BLUE
SIGNAL CONDITIONER, WHICH I BELIEVE WE'RE GOING TO HAVE TO
SWITCH TO WIRES THAT GO INTO THE SIGNAL CONDITIONERS.
SC OKAY, YOU WANT THE TWO CENTER LEADS TO
GO TO THE BLUE SIGNAL CONDITIONER, RIGHT?
CAPCOM YEAH, THAT'S AFFIRMATIVE.
SC OKAY, THAT MEANS WALLY WILL HAVE TO CONNECT
THE CONNECTOR OF THE OTHER SIGNAL CONDITIONER AND HE WILL HAVE
(GARBLE) TO THE TWO.
CAPCOM THAT'S AFFIRMATIVE. THAT'S AFFIRMATIVE.
SC OKAY, HE'LL TRY IT.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET 1261000 CDT 4:13P 403/1

SC (GARBLED)
CAPCOM THAT'S AFFIRMATIVE.
SC OKAY, HE'LL TRY, IF THAT DOESN'T WORK
WE WILL JUST HAVE TO WRITE IT OFF, BECAUSE HE HAS BEEN
TRYING TO PIECE THAT THING TOGETHER FOR THE LAST 126 HOURS.
WE TRIED.

CAPCOM ROGER. APOLLO 7, HOUSTON. ONE MINUTE
LOS. MERCURY AT 24.

SC AND AS SOON AS YOU CAN GET IT, WE WOULD
LIKE AN UPDATE FOR ONBOARD RCS CHART.

CAPCOM WILCO. WE WILL HAVE IT AVAILABLE AT
MERCURY

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1262400 (CDT 4:25P) 404/1

PAO THIS IS APOLLO CONTROL AT 126 HOURS, 24 MINUTES. APOLLO 7 COMING UP ON THE MERCURY NOW. THIS IS A QUIET TIME IN THE FLIGHT PLAN, NO ACTIVITIES ARE SCHEDULED. APOLLO 7 JUST COMING OUT OF THE NIGHT SIDE AS IT ACQUIRES AT MERCURY. MERCURY HAS ACQUISITION NOW, WE'LL STAND BY FOR A CALL.

CAPCOM APOLLO 7 HOUSTON THROUGH MERCURY.

SC ROGER, RON

CAPCOM OKAY, I GOT YOUR RCS UPDATE FOR FIGURE THREE DASH ONE.

SC ROGER, GO WITH IT.

CAPCOM ROGER, AT 126 HOURS TOTAL IS 688 POUNDS SCS RED LINE 601, DAP RED LINE 536, HYBRID 263 AND BE ADVISED THAT QUAD A IS STILL RIGHT ON THE SCS RED LINE, THE REST OF THEM ARE ABOVE.

SC QUAD A, I THOUGHT QUAD C WERE THE FIRST ONE WE WERE GOING TO BE SWITCHING.

CAPCOM ROG. STAND BY, WALL.

SC OKAY, RON, BUT I WAS GIVEN SOME NUMBERS TODAY THAT WHAT THE ONBOARD METERS SHOULD READ BEFORE THEY SWITCH TO SECONDARY. IS THAT GOING TO BE OPEN LOOP AND WHEN I GET DOWN TO THAT READING I SWITCH OR WILL YOU BE GIVING ME LATER DOPE ON SWITCHING.

CAPCOM WE'RE KEEPING TRACK ON IT, WALT, AND WILL PROBABLY BE GIVING YOU LATER DOPE ON IT BUT THOSE ARE THE FIGURES WE HAVE AT THIS TIME.

SC ROGER, AND I WAS TOLD TO SEE WHEN IT WAS GETTING CLOSEST TO GETTING ON THE SECONDARIES.

CAPCOM THAT IS AFFIRMATIVE. AS FAR AS YOUR ON BOARD READING IS CONCERNED ITS 54 PERCENT FOR C, 49 FOR D, DELTA, AND A ITS 46 PERCENT.

SC ROGER

CAPCOM APOLLO 7 HOUSTON, REQUEST YOU CYCLE 02 TANK TWO FAN ON FOR FIVE MINUTES AND OFF.

SC ROGER, SIR.

CAPCOM THIS PASS WHEN YOU GET A CHANCE YOU CAN READ OUT YOUR SERVICE MODULE RCS PROPELLANT QUANTITIES AND YOUR SYSTEM TEST METER 5A THROUGH D AND 6A THROUGH D.

SC ROGER, AND I'LL GIVE YOU THE QUERIES RIGHT NOW BEFORE I FORGET IT, CAN YOU HAVE THEM STANDING BY WHEN WE ARE COMING OVER HAWAII TO CHECK WALLY'S BIOMED READ-OUT.

CAPCOM WILL GO

SC OKAY, A THROUGH D READING 51 PLANK 55 PLUS 58, OVER.

CAPCOM ROGER, COPY

SC CAN I CHECK IN THE NUMBER FOR MY CHART?

CAPCOM ROGER, THE TOTAL FOR YOUR CHART IS 688.

APOLLO 7 COMMENTARY, 10/16/68, GET: 1262400 (CDT 4:25P) 404/2

SC ROGER, 688. COPY. I WILL GIVE YOU THE
TEST METER READOUTS.
CAPCOM ROGER.
SC OKAY. FOR FIVE THREE IS FIVE VOLTS.
FIVE THREE IS FIVE VOLTS. SIX DOG FIVE, SIX CHARLIE FOUR
POINT EIGHT. SIX BAKER FIVE, SIX ABLE FIVE. OVER.
CAPCOM ROGER. YOU HAVE FIVE ALPHA.
SC OKAY, FIVE ALPHA IS ONE POINT SEVEN.
CAPCOM SAY AGAIN.
SC WHICH SHOULD BE ON THE ORDER ABOUT 70 -
WE WILL BE STARING AT, I BELIEVE.
CAPCOM ROGER, WAS THAT ONE POINT SEVEN?
SC THAT IS AFFIRMATIVE. ONE POINT SEVEN.
CAPCOM ROGER. AND I HAVE YOUR GROUND COMPUTER
70 USABLE RCS PROPELLANT REMAINING IF YOU WOULD LIKE THOSE.
SC OKAY, GO WITH THEM.
CAPCOM OH ROGER. IT WILL BE 46 PERCENT, 50 PER-
CENT, 45 PERCENT AND 52 PERCENT A THROUGH D.
SC 46 50 45 52.
CAPCOM ROGER.
SC HOW DID YOU EVER GET BAKER TO BE 50 AND
DOG TO BE 52?
CAPCOM I AM NOT QUITE SURE, BUT IT WORKS OUT THAT
WAY.
SC (GARBLED)
CAPCOM LOS (GARBLED)
PAO THIS IS APOLLO CONTROL 126 HOURS 32 MIN-
UTES INTO THE MISSION. MERCURY HAS LOS. DURING THIS PASS
WE UPDATED THE SPACECRAFT WITH GROUND COMPUTED REACTION CONTROL
SYSTEM PROPELLANT QUANTITIES AND WE GOT A READOUT FROM THE
ONBOARD RCS QUANTITIES. THIS IS THE SLEEP PERIOD FOR THE
COMMAND MODULE PILOT, DONN EISELE. HAWAII WILL ACQUIRE AT
126 HOURS 43 MINUTES. THIS IS MISSION CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET 1264300 (CDT 4:45 P) 405/1

PAO THIS IS APOLLO CONTROL AT 126 HOURS
43 MINUTES INTO THE MISSION, APOLLO 7 COMING UP ON THE
HAWAII STATION. THE HUNTSVILLE TRACKING SHIP HAS OVER-
LAPPING COVERAGE HERE, WE'LL STAND BY THROUGH THIS PASS.

CAPCOM APOLLO 7, HOUSTON, THROUGH HAWAII,
STANDING BY.

SC ROGER, WE READ YOU LOUD AND CLEAR.

CAPCOM ROGER, LOUD AND CLEAR.

SC HEY, RON, LOG THE CMP WITH HOW MANY.

CAPCOM SAY AGAIN.

CAPCOM APOLLO 7, HOUSTON, SAY AGAIN.

SC WOULD YOU LOG CMP WITH ABOUT 50 CLICKS
FOR THE LAST 5 HOURS.

CAPCOM 50 CLICKS YOU SAY IN THE LAST 5 HOURS?

SC AFFIRMATIVE.

CAPCOM ROGER.

SC AND CDR 30.

CAPCOM ROGER.

SC LMP 15.

CAPCOM ROGER.

SC HOW'S SIR JOHN DOING WITH MY BIOMED?

CAPCOM ROGER, LOOKS LIKE YOU'RE GETTING THE
AUXILIARY, THE ONES UNDER YOUR ARMS THERE GOING INTO THE
BLUE SIGNAL CONDITIONER WHICH IS OKAY, WE CAN DO - WE CAN
DO WITH THAT ONE.

SC THAT'S WHAT YOU'RE TRYING FOR ISN'T IT?

CAPCOM NOT QUITE, BUT THAT'S OKAY. WITH WHAT
WE'RE TRYING (CUT OFF).

SC I'LL BET YOU'LL HAVE THE (GARBLE) TO
GO INTO THE BLACK AND THE TWO AUXILIARY INTO THE BLUE.

CAPCOM NO, WE THOUGHT THE BROKEN WIRE WAS FROM
THE TWO EXTERNAL ONES (CUT OFF).

SC I THINK THE LOW EXTERNAL IS BROKEN.

CAPCOM OKAY, OKAY, I SEE WHAT YOU'RE SAYING
THE LOWER EXTERNAL IS BROKEN, BUT WHAT WE'RE TRYING TO DO
WAS KEPT THE TWO EXTERNAL ONES TO GO INTO THE BLUE SIGNAL
CONDITIONER.

SC THAT'S HOW THEY WERE ORIGINALLY.

CAPCOM YEA, RIGHT, BUT WE WANTED TO SWITCH THE
PIECES OF WIRE THAT GO INTO THE SIGNAL CONDITIONER, THE
AUXILIARY WIRES THAT GO INTO THE SIGNAL CONDITIONER - INTO
THE BLACK SIGNAL CONDITIONER WE WANTED TO USE THAT LOWER
PIECE OF THE WIRE AND HOOK THAT PIECE OF THE WIRE TO THE
CENTER SENSORS.

SC I WON'T HAVE YOU CHANGE MY SPARK PLUGS.

CAPCOM IT'S WORKING OKAY THE WAY IT IS, IT'S
FINE.

SC OKAY.

APOLLO 7 COMMENTARY, 10/16/68, GET 1264300 (CDT 4:45 P) 405/2

CAPCOM THE GOOD DOCTORS SAY, THANK YOU.
SC ROGER, YOU KNOW WALLY, ANYTHING FOR THE
DOCTOR.
CAPCOM ROGER.
SC SAY, I'VE KIND OF LOST TRACK, IS THIS
DAY 8 OR DAY 9.
CAPCOM I HAVE TO, WAIT, WALT - I GOT A TIME
HACK TO END OF MISSION, IF YOU'D LIKE THAT.
SC I WAS TRYING TO THINK OF HOW TO GET A
BIG CLOCK TO COUNT DOWN.
CAPCOM (LAUGHTER).
SC GO AHEAD.
CAPCOM ROGER, STAND BY FOR 132 HOURS AND 51
MINUTES. 5, 4, 3, 2, 1, MARK 123 HOURS AND 50 MINUTES.
SC BEAUTIFUL, IS THAT DROGUES OR MAINS.
CAPCOM THAT'S TO GETI BURN 8.
SC OH, WE GOT MORE TO GO.
CAPCOM YEA.
SC WHAT'S THE 6 TO 8 FORECAST ON HURRICANE
WHAT'S IT'S NAME.
CAPCOM APOLLO 7, HOUSTON.
CAPCOM APOLLO 7, HOUSTON, HUNTSVILLE (GARBLE)
AM I GETTING THROUGH TO YOU.
HTV AFFIRMATIVE.
CAPCOM APOLLO 7, HOUSTON.
SC APOLLO 7, HOUSTON, HOW'S (CUT OFF)

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1265300 (CDT: 4:55P) 406/1

CAPCOM APOLLO 7, HOUSTON. APOLLO 7, HOUSTON.
HUNTSVILLE, LET ME KNOW, HOUSTON, IS APOLLO 7 READING US.
HTV HOUSTON, HUNTSVILLE. APOLLO 7 ANSWERED
ONCE FROM DOWN-LINK S-BAND, AND WE HAVEN'T HEARD HIM SINCE.
CAPCOM ROGER.
HTV HOUSTON, HUNTSVILLE. THEY ARE NOW
ANSWERING YOU ON S-BAND DOWN-LINK.
CAPCOM ROGER, WALLY, BE ADVISED ON GLADYS.
WE'RE NOT SURE WHETHER TO MOVE YOUR BOAT OR MOVE YOUR LANDING
POINT YET.
HTV HUNTSVILLE, LOS.
PAO THIS IS APOLLO CONTROL AT 126 HOURS
54 MINUTES. THE NEXT STATION TO ACQUIRE WILL BE TANANARIVE
AT 127 HOURS 36 MINUTES.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1273600, (CDT 5:40P) 407/1

PAO THIS IS APOLLO CONTROL AT 107 HOURS 36
MINUTES. TANANARIVE IS ACQUIRING APOLLO 7 NOW IN ITS 81ST
REVOLUTION.
CAPCOM APOLLO 7 HOUSTON THROUGH TANANARIVE.
SC ROGER, RON.
CAPCOM ROG. I HAVE YOUR PRESENT BATTERY STATUS.
A HALF HOUR'S REMAINING.
SC ROG. READ IT.
CAPCOM 39.5. ROGER. ALPHA 31.4, BRAVO 29.0, CHARLIE
SC ROGER, I'LL MAKE A NOTE ON MY REPORT. THE
WAY THOSE NUMBERS CHANGE, I WHICH WE COULD GET THE STATISTICALS
A BIT EARLIER SOMETIME.
CAPCOM I MISSED THAT, SAY IT AGAIN.
SC ROGER, I'LL GIVE YOU OUR NUMBERS.
CAPCOM ROGER.
SC (GARBLE) TO TANANARIVE (GARBLE) DUMPED
THE WASTE WATER THERE. (GARBLE) DISCONNECT. IT FAILED TO
A 2B SETTING OVER BY THE WASTE WATER CONTROL PANEL, AND
WHEN WE DUMPED THE WASTE WATER, A LARGE QUANTITY OF WATER
FORMED THERE. (GARBLE) RUN THAT AND IT PERFORMED PRETTY GOOD
(GARBLE) ONLY (GARBLE)
CAPCOM APOLLO 7, HOUSTON, I CAN'T MAKE TOO MUCH
OUT OF THAT. THERE WAS A LARGE PUDDLE OF WATER BY THE WATER
TANK, WASTER WATER DISCONNECT.
SC ROGER, AFFIRMATIVE, AND WALT WAS PUTTING
A DIFFERENT TYPE (GARBLE) BY THE WATER CONTROL PANEL TO (GARBLE)
THE LEAKING THERE (GARBLE).
CAPCOM WE'LL PLAY BACK OUR TAPES. MAYBE WE CAN
READ IT OFF THE TAPES. I COULDN'T READ YOU THAT TIME.
SC RON, WE GOT A VERY NICE PICTURE AS WE
WENT OVER (GARBLE) TODAY, BUT WE GOT THERE ABOUT (GARBLE)
CAPCOM ROGER, THAT'S GOOD.
SC THE MAGAZINE WAS 97 TO NEGATIVE (GARBLE)
CAPCOM ROGER.
CAPCOM APOLLO 7, HOUSTON, DID YOU RECEIVE MY
COMMENTS ON HURRICANE GLADYS?
SC ROGER, I UNDERSTAND IT'S IN THE GULF.
CAPCOM ROGER. IN REALITY, IT'S DUE TO HIT TAMPA
AT 1800 Z TOMORROW, ON THURSDAY.
SC HOW'S THE HOUSTON WEATHER, RON?
CAPCOM APOLLO 7, HOUSTON 1 MINUTES LOS MERCURY
AT 59.
PAO THIS IS APOLLO CONTROL AT 127 HOURS 43 MIN-
UTES. VERY NOISY CIRCUITS ON THAT PASS. CAPCOM, RON EVANS,
PASSED UP THE BATTERY STATUS TO THE CREW, GAVE THEM THE AMOUNT
OF AMPERE HOURS REMAINING IN THEIR BATTERIES. WALT CUNNINGHAM
GAVE A REPORT ON THE CONTINUING WATER PROBLEM INSIDE THE CABIN.
MUCH OF IT WAS UNREADABLE, BUT WE DID COPY IT THAT THERE IS

APOLLO 7 COMMENTARY, 10/16/68, GET: 1273600 (CDT 5:40P) 407/2

PAO A PUDDLE OF WATER BY THE FITTING OF THE
WASTE WATER DISCONNECT. WALT ALSO REPORTED GETTING SEVERAL
GOOD PICTURES OF THE WEST COAST OF CHILI. THE TRACKING SHIP
MERCURY WILL ACQUIRE APOLLO 7 NEXT. THAT WILL BE AT 127 HOURS
59 MINUTES. THIS IS MISSION CONTROL, HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1275900 (CDT 6:00P) 408/1

PAO THIS IS APOLLO CONTROL 127 HOURS
59 MINUTES. THE MERCURY HAS ACQUIRED APOLLO 7. THERE IS
NO OVERLAPPING COVERAGE AT GUAM ON THIS PASS. WE'LL STAND
BY THROUGH THE MERCURY.

CAPCOM APOLLO 7, HOUSTON THROUGH MERCURY.

SC ROGER, LOUD AND CLEAR.

CAPCOM ROGER, SAME HERE. I HAVE A ONE LINE
FLIGHT PLAN UPDATE.

SC GO AHEAD, RON.

CAPCOM AT TIME 130 PLUS 00 AN OXYGEN FUEL
CELL PURGE.

SC ROGER, AT ABOUT HALF WAY MARK GO TO

FUEL CELL PURGE.

CAPCOM ROGER. AND WALLY IF YOU WANT TO GO

BACK TO WALT ON THE BIOMED THAT'LL GET US SQUARED AWAY ON
THE FLIGHT PLAN AGAIN.

SC OKAY. YOU GOT IT.

CAPCOM ROGER, COPY.

SC GO AHEAD. ONE MORE BAG FAILURE, ORANGE
JUICE RECONSTITABLE BAG. I THINK WALT WAS TRYING TO ADD
SOME PRUNE JUICE TO IT. IT WAS THE KIND OF THING IN MY
DINNER TOO.

CAPCOM YOU DIDN'T QUITE GET THE PT THEN, DID
YOU?

SC OH, VERY GOOD. YOU'RE FIGHTING BACK.

CAPCOM APOLLO 7, HOUSTON. WE'VE GOT ABOUT
70 KNOTS OF WIND IN THE EYE OF GLADYS.

SC ROGER.

PAO APOLLO CONTROL 128 HOURS 6 MINUTES.
THE MERCURY HAS LOS NOW. WE PASSED UP A FLIGHT PLAN UPDATE
ASKING THEM TO HAVE AN OXYGEN PURGE IN A FUEL CELL AT
130 HOURS. AND WALT CUNNINGHAM REPORTED FAILURE OF AN
ORANGE JUICE BAG. THE NEXT STATION TO ACQUIRE WILL BE
HAWAII AT 128 HOURS 17 MINUTES.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68 GET: 1281700 (CDT 6:20P) 409/1

PAO THIS IS APOLLO CONTROL AT 128 HOURS AND 17 MINUTES AND APOLLO 7 HAS JUST BEEN ACQUIRED BY THE HAWAII STATION. WE'LL MONITOR THIS PASS.

CAPCOM APOLLO 7 HOUSTON, HAWAII STANDING BY.

SC ROGER

CAPCOM ROGER, WE READ YOU.

SC HEY, RON, IS THERE NOTHING TO BE DONE TO COME UP ON THE CHECK ON THE NEXT PASS OVER THE MERCURY, OKAY?

CAPCOM ROG, THAT'S FINE.

SC OKAY, WE ARE TRYING TO EAT DINNER NOW.

CAPCOM ROGER

PAO ONE MINUTE TO LOS RESTONE AT 34. THIS IS APOLLO CONTROL 128 HOURS AND 23 MINUTES. HAWAII HAS LOS. WALT CUNNINGHAM REPORTED THAT HE AND WALLY SCHIRRA WERE EATING DINNER AND WOULD POSTPONE THE ENVIRONMENTAL CONTROL SYSTEM REDUNDANT COMPONENT CHECK UNTIL OVER THE MERCURY ON THE NEXT REV. THE REDSTONE WILL ACQUIRE APOLLO 7 VERY BRIEFLY ON THIS REVOLUTION. THE MAXIMUM ELAVATION IN THE REDSTONE RANGE IS A DEGREE AND A HALF. THAT'LL GIVE US ABOUT THREE MINUTES WORTH OF ACQUISITION TIME. REDSTONE DUE TO ACQUIRE AT 128 HOURS, 34 MINUTES. THIS IS MISSION CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1283400 (CDT 6:35 P) 410/1

PAO APOLLO CONTROL AT 128 HOURS 34 MINUTES
AND APOLLO 7 IS TAGGING UP AT THE REDSTONE NOW.

CAPCOM APOLLO 7, HOUSTON, REDSTONE STANDING BY.

SC ROGER.

CAPCOM ROGER.

SC HEY, RON, CAN YOU GIVE US A READ OUT ON
OUR O2 MANIFOLD PRESSURE ON MY MARK.

CAPCOM WAIT, WALLY, I DON'T HAVE IT YET - WALT
WE'VE GOT KIND OF A LOW SIGNAL STRENGTH WE'RE TRYING TO GET
HIGH BIT RATE NOW.

SC GARBLE.

CAPCOM ROG, I'LL LET YOU KNOW IF WE GET IT.
APOLLO 7, YOU WANT TO TRY OPPOSITE OMNI - ROG, WE'RE READING
105 NOW.

SC GARBLE.

CAPCOM WAIT, WALLY, WE'VE LOST IT AGAIN. IS
THAT ONE MINUTE TO LOS, WE'LL PICK IT UP OVER MERCURY NEXT
TIME.

PAO THIS IS APOLLO CONTROL AT 128 HOURS 37
MINUTES AND APOLLO 7 IS BEYOND REDSTONES RANGE. COMING UP
ON THE END OF THE 81 REVOLUTION. APOLLO 7 WILL MISS THE
ASCENSION STATION AND TANANARIVE STATION THIS TIME, THAT
MAKES THE NEXT STATION TO ACQUIRE THE TRACKING SHIP MERCURY
IN THE WESTERN PACIFIC AT 129 HOURS 33 MINUTES. THIS IS
MISSION CONTROL, HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1293400 (CDT 7:40P) 411/1

PAO THIS IS APOLLO CONTROL AT 129 HOURS
33 MINUTES. APOLLO 7 COMING UP ON THE TRACKING SHIP MERCURY
NOW AFTER A LONG SPELL OF NOT BEING IN CONTACT WITH THE
STATION. MERCURY HAS ACQUISITION, WE'LL STAND BY.

CAPCOM APOLLO 7, HOUSTON THROUGH MERCURY.

SC ROGER, HOUSTON!

CAPCOM ROG, LOUD AND CLEAR.

SC WANT TO MAKE A READ-OUT OF OUR MANIFOLD
PRESSURE.

CAPCOM ROG, STAND BY. WE HAVE NO DATA YET.

CAPCOM 7, HOUSTON. LOOKS LIKE WE'VE GOT A
PROCESSING PROBLEM HERE FOR A LITTLE BIT. I'VE GOT THE RESULTS
OF WHAT WE FEEL ON THE EVAPORATOR, IF YOU WOULD LIKE TO HEAR
IT?

SC ROGER, I'D BE VERY INTERESTED.

CAPCOM ROGER, WHEN WE'RE OPERATING UNDER LOW
CYCLE HEAT LOADS - CYCLING HEAT LOADS AS WE HAVE BEEN DOING,
THE EVAPORATOR WILL DRY ITSELF OUT. THIS IS BASICALLY CAUSED
BY THE EVAPORATOR BOILING MORE WATER UNDER LOW HEAT LOADS
THAN IS BEING SUPPLIED TO IT. THE END RESULT IS DRYING OF
THE EVAPORATOR. IF THE EVAPORATOR IS LEFT IN AUTO THE
BACK PRESSURE VALVE REMAINS OPEN AND COMPLETELY EVACUATES
THE EVAPORATOR. WHEN THE WATER VALVE IS NOW OPENED EITHER
AUTOMATICALLY OR MANUALLY, THE FIRST WATER THAT GOES INTO
THE EVAPORATOR FLASH FREEZES, THIS STOPS ANY MORE WATER
FROM GETTING INTO THE EVAPORATOR UNTIL IT THAWS OUT. NOW
A COUPLE OF MORE COMMENTS. WE FEEL BOILER WILL WORK NORMALLY
SHOULD IT BE CALLED UPON TO TAKE THE ENTIRE HEAT LOAD.
SINCE THE RADIATOR HAD DEMONSTRATED THAT THEY COULD HANDLE
THE HEAT LOAD SHOULD THE EVAPORATOR FOUL UP AGAIN, IT SHOULD
BE RESERVICED AND TURNED OFF UNTIL IT IS NEEDED.

SC ROGER, RON, THERE'S ONLY ONE COMMENT
I HAVE TO ADD TO THAT - THAT MAKES SENSE I ASSUME WITH HIGH
HEAT LOAD THEN WE WOULDN'T HAVE ANY PROBLEM. WE DO NOTICE
THE DIFFERENCE IN TEMPERATURE IN THE SPACECRAFT WHEN THE
EVAPORATOR RUNNING OR NOT, BUT IT SEEMS LIKE IT RUNS A LITTLE
BIT ALL THE TIME WHEN IT'S ON THE LINE. THE GLYCOL EVAPORATOR
OUTLET TEMP IS REGULATED DOWN UNDER 45 MOST OF THE TIME.
IN THE DROP LINE COMPLETELY (GARBLE) AND THE GLYCOL EVAPORATOR
OUTLET TEMP OF 50 TO 52 AND SOMETIMES A LITTLE HIGHER.

CAPCOM ROGER, WE COPY THAT.

SC SO NEXT TIME IT SHUTS DOWN WE WILL
SERVICE IT AND WE WILL STAND BY ON IT.

CAPCOM ROGER.

SC HAVE ANY DATA YET?

CAPCOM I GOT A LITTLE BIT RIGHT - WE'RE SENDING
ON HAVE THE COMMAND PILOT STAND BY.

APOLLO 7 COMMENTARY, 10/16/68, GET: 1293400 (CDT 7:40P) 411/2

CAPCOM OKAY, LOOKS GOOD. WE'RE READING 104
NOW.

SC ROGER, WHAT ARE YOU READING NOW?

CAPCOM 103.

SC ROGER, THE EVAPORATOR CHECK IS A-OKAY.

CAPCOM ROGER, WOW.

SC HE'S CLOSE TO BEING FIRED, RON. HOW

DO I GET RID OF HIM?

PAO THIS IS APOLLO CONTROL 129 HOURS
40 MINUTES. THE MERCURY HAS LOS. GUAM DOES NOT ACQUIRE ON
THIS THE 82 REVOLUTION. THE NEXT STATION TO ACQUIRE WILL BE
THE TRACKING SHIP REDSTONE AT 130 HOURS 5 MINUTES. WE HAVE
TWO CLOCKS FROM THE CONTROL CENTER SUPPER IMPOSED ON THE
WORLD MAP ON YOU TELEVISION MONITOR IN THE NEWS CENTER. THE
ONE AT THE TOP IS THE ELAPSE TIME SINCE LIFT-OFF. THE ONE
AT THE BOTTOM IS COUNTING DOWN TO THE DE-ORBIT BURN. THESE
TWO CLOCKS SHOULD READ OUT THE SAME AT 129 HOURS 50 MINUTES.
ABOUT 9 MINUTES FROM NOW BOTH CLOCKS SHOULD READ 129 HOURS
50 MINUTES. THE MID POINT BETWEEN LIFT-OFF AND SPS BURN
NUMBER 8, THE DE-ORBIT BURN. THE MISSION WILL CONTINUE FOR
ANOTHER 25 OR 30 MINUTES AFTER THAT DE-ORBIT BURN FOR THE
RE-ENTRY PHASE. BUT WE ARE RAPIDLY COMING UP ON THE MID
POINT BETWEEN LIFT-OFF AND DE-ORBIT. AT 129 HOURS 42 MINUTES
THIS IS MISSION CONTROL, HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET 1295000 CDT 7:50P 412/1

APO THIS IS APOLLO CONTROL 129 HOURS
49 MINUTES 37 SECONDS, COMING UP ON THE MID-POINT BETWEEN
LIFT OFF AND THE NOMINAL DEORBIT BURN. MARK 1295000

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68 GET: 1300400 (CDT 8:05P) 413/1

PAO THIS IS APOLLO CONTROL AT 130 HOURS, 4 MINUTES COMING UP ON FIVE MINUTES WHICH WILL BE THE NOMINAL POINT IN THE MISSION FROM LIFT-OFF TO SPLASH. APOLLO 7 ABOUT TO BE ACQUIRED AT REDSTONE NOW. THE BEST ESTIMATE AT PRESENT IS THAT THE REENTRY TIME FROM DE-ORBIT BURN TO SPLASH WILL BE APPROXIMATELY 30 MINUTES. IT CAN'T BE FIGURED PRECISELY AT THIS TIME DUE TO ATMOSPHERIC ELEMENTS AND DISPERSION THAT MIGHT OCCUR IN THE DE-ORBIT BURN BUT IT WILL BE ON A ORDER OF THIRTY MINUTES; SO WE ARE AT THE MID-POINT NOW FOR LIFT-OFF TO SPLASH. APOLLO 7 HAS BEEN ACQUIRED NOW, ALTHOUGH THERE HAS NOT BEEN A CALL GO UP YET, WE WILL STAND BY THROUGH THIS PASS AT THE REDSTONE.

CAPCOM APOLLO 7 HOUSTON, REDSTONE.

SC ROGER

CAPCOM APOLLO 7 HOUSTON, WE WOULD LIKE TO CYCLE 02 TANK 2, TURN IT ON SHORTLY AND THEN WE WOULD LIKE TO SEE THE OFF BEFORE WE COMPLETE THIS PASS.

SC WAS THAT THE 02 FAN, RON

CAPCOM I'M SORRY, 02 FAN

SC ROG. I'M RUNNING A DTO NOW, THE ONE FOR 60 PERCENT ON THE CRYO TANK. I'VE GOT BOTH FANS, BOTH HEATERS OFF. I'M ASSUMING WHEN I FINISH THIS RUN OF IT, THAT DTO IS COMPLETE. CAN YOU VERIFY IT FOR ME?

CAPCOM ROG. LET ME GET MY LIGHT ON THE FAN SWITCHER AND WE'LL VERIFY THAT CHART. APOLLO 7 HOUSTON.

SC GO AHEAD

CAPCOM ROG. THAT DOES COMPLETE THE 60 PERCENT BUT WE STILL HAVE ONE MORE AT THE LOW END PRIOR TO REENTRY WHERE IT DOESN'T WORK OUT, DOESN'T CONFLICT.

SC THE ONBOARD COPY OF THE DTO WHICH I SEE YOU HAVE THERE SHOWS ONLY 90 PLUS MINUS 5 AND 60 PLUS MINUS 5 OR LAST DAY.

CAPCOM ROGER, WE'LL CHECK ON IT NOW. WALT, IT LOOKS LIKE ON THE DTO THERE "OR LAST DAY" SHOULD HAVE BEEN "AND LAST DAY."

SC OKAY, I'LL GIVE YOU A HACK ON HOW LONG IT TAKES TO RUN THIS AND WE OUGHT TO FIND OUT IF WE CAN'T WORK IT IN THE LAST DAY, WE'LL SEE.

CAPCOM OH ROGER, THANK YOU.

SC I STARTED IT AT ABOUT 129 HOURS AND 45 MINUTES, I GUESS.

CAPCOM ROGER

SC RON, DO YOU HAVE TIME TO GIVE MAP UPDATE?

CAPCOM ROGER. APOLLO 7 HOUSTON, YOU READY TO COPY?

SC GO AHEAD

CAPCOM ROGER, RED 82 GET 129 PLUS 13 PLUS 13, LONGITUDE 35.1 EAST.

APOLLO 7 COMMENTARY, 10/16/68 GET: 1300400 (CDT 8:05P) 413/2

SC ROGER, YOU CUT OUT, COULD YOU TRY IT
AGAIN?
CAPCOM ROGER, GET 129 PLUS 13 PLUS 13, LONGITUDE
35.1 EAST, REV 82.
SC ROG, I GOT IT.
CAPCOM APOLLO 7 HOUSTON 30 SECONDS LOS ASCENSION
AT 31.
PAO THIS IS APOLLO CONTROL, 130 HOURS, 13
MINUTES REDSTONE HAS LOS. THE NEXT STATION TO ACQUIRE WILL
BE ASCENSION AT 130 HOURS, 31 MINUTES, APOLLO 7 COMPLETING
ITS 82 REVOLUTION NOW.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1303100 (CDT 8:35P) 414/1

PAO THIS IS APOLLO CONTROL AT 130 HOURS
31 MINUTES. APOLLO 7 IS IN ITS 83RD REVOLUTION OF THE EARTH
NOW, AND COMING UP ON THE ASCENSION ISLAND TRACKING STATION.
WE'LL STAND BY THROUGH THIS PASS.

CAPCOM APOLLO 7, HOUSTON THROUGH ASCENSION.

CAPCOM APOLLO 7, HOUSTON.

CAPCOM APOLLO 7, HOUSTON.

CAPCOM APOLLO 7, HOUSTON.

CAPCOM APOLLO 7, HOUSTON.

CAPCOM ASCENSION M&O, HOUSTON CAPCOM.

CAPCOM APOLLO 7, HOUSTON.

ASN VOICE CONTROL, THIS IS

CAPCOM APOLLO 7, HOUSTON.

CAPCOM APOLLO 7, HOUSTON.

CAPCOM APOLLO 7, HOUSTON.

CAPCOM APOLLO 7, HOUSTON TRANSMITTING IN THE BLIND.

WE HAVE FUEL CELL 02 FLOW LINE.

PAO THIS IS APOLLO CONTROL AT 130 HOURS
39 MINUTES. ASCENSION HAS LOS NOW. A NETWORK PROBLEM DURING
THIS PASS PREVENTED US FROM ESTABLISHING VOICE CONTACT WITH
THE SPACECRAFT. WE WERE UNABLE TO GET THE CIRCUIT RESTORED
PRIOR TO LOS. THE NEXT STATION TO ACQUIRE WILL BE THE TRACKING
SHIP MERCURY. AT 132 - STAND BY - 131 HOURS 07 MINUTES, THIS
IS MISSION CONTROL, HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1310700 (CDT 9:10P) 415/1

PAO THIS IS APOLLO CONTROL AT 131 HOURS
7 MINUTES INTO THE MISSION. APOLLO 7 IS IN IT'S 83 REVOLUTION
AND IS APPROACHING THE TRACKING SHIP MERCURY IN THE WESTERN
PACIFIC. MERCURY HAS ACQUISITION NOW, WE'LL STAND BY.
CAPCOM APOLLO 7, HOUSTON THROUGH MERCURY.
SC ROGER.
CAPCOM ROGER, READ YOU.
SC ROGER.
CAPCOM 7, HOUSTON. GOT A COUPLE OF ONBOARD
READ-OUTS I WOULD LIKE TO CUT.
SC GO AHEAD.
CAPCOM ROGER, PYRO BATTERY VOLTAGES AND
BAT C VOLTAGE.
SC YEH, RON. WE READ THE PYRO BATTERY
VOLTAGE A LITTLE EARLIER THIS EVENING. WE PASS IT DOWN. I
GUESS IT WAS BEFORE YOUR SHIFT. THEY WERE BOTH READING
37 VOLTS.
CAPCOM ROGER. I MISSED IT, SORRY.
SC BATTERY C IS 36 VOLTS.
CAPCOM ROGER, COPY. AND COULD YOU CHECK YOUR
02 FLOW OR 02 PURGE SWITCH ON FUEL CELL 2.
SC THANK YOU, RON. OKAY, RON, WHAT ARE
YOU GUYS READING NOW FOR THE 02 TANK PRESSURES?
CAPCOM 02 TANK PRESSURES.
SC RIGHT, I'VE GOT THE HEATERS BAND ON.
CAPCOM APOLLO 7, HOUSTON. WE'RE READING 846
ON TANK 1 AND 827 ON TANK 2.
SC ROGER, THANK YOU.
CAPCOM 7, HOUSTON. THE 02 FLOW LOOKS GOOD NOW
ON FUEL CELL 2, AND YOU CAN CONTINUE WITH 3. AND WE COULD
USE A GENERAL RUN DOWN ON YOUR CREW HEALTH, THE MEDICATION
AND THE AMOUNT OF SLEEP, WHAT HAVE YOU.
SC WELL, THIS IS THE LMP. I HAD ANOTHER
ACTIFED. LET'S SEE NIGHT BEFORE LAST. THAT MAKES TWO I'VE
HAD. MY EARS ARE GETTING MORE DIFFICULT TO CLEAR THAN THEY
HAVE BEEN. SOMETIMES I CAN CLEAR ONE, SOMETIMES I CAN'T. I
FEEL VERY GOOD OTHERWISE. I'M A LITTLE BIT CONCERNED ABOUT
THE LACK OF ANY NOSE DROPS SINCE THERE'S ASPIRIN ONBOARD. AND SEEMS
TO ME IF WE HAD SOMETHING LIKE THAT WE'D BE ABLE TO AT LEAST
MAKE A STAB, AND LET MY EARS GET CLEARED ON REENTRY.
CAPCOM ROGER, COPY THAT. OPPOSITE OMNI,
APOLLO 7.
SC ROGER, WE JUST GOT A FEEBLE LINES ON
FRAME 97, 90 DEGREES CLEAR. THAT IS A 1310, WITH 11
MINUTES 30 SECONDS.
CAPCOM ROGER.
SC YEH, RON. MY LEEP LAST NIGHT I GOT

APOLLO 7 COMMENTARY, 10/16/68, GET: 1310700 (CDT 9:10P) 415/2

OH, ABOUT 7 HOURS OF SLEEP WHICH IS GOOD SOUND SLEEP. THE BEST I GOT SINCE COMING UP HERE, I GUESS.

CAPCOM ROGER.

SC WE'VE ALL BEEN AVERAGING GOOD SLEEP LATELY. DONN'S BEEN SLEEPING MUCH BETTER. HE'S THE ONE WHO'S WAY BEHIND ON SLEEP. AND BECAUSE WE SWITCHED HIS DAY TO GO TO BED AT NIGHT AT 4 O'CLOCK WHICH IS PRETTY CLEVER FOR ANYBODY TO TRY.

CAPCOM RIGHT.

SC AND HE IS FINALLY ACCLIMATED TO THAT SCHEDULE. AND ALL THREE OF US HAVE VARYING FORMS OF COLD - VARIOUS FORMS OF COLD. MINE IS STILL A HEAD COLD, AND IT'S ABOUT MY PROBLEM. I'M OFF PILLS THESE DAYS.

CAPCOM ROGER.

SC WHAT DO THE DOCTORS HAVE IN MIND FOR HEAD CLEARING ON RE-ENTRY?

CAPCOM WE'RE COUNTING ON THREE ACTIFED.

SC YOU MEAN THREE PER MAN.

CAPCOM NEGATIVE. ONE EACH, DONN.

SC WHY DON'T YOU SUGGEST TO 'EM THAT THEY DO AS FLIGHT SURGEONS FOR AIRPLANE DRIVERS, I HAVEN'T SEEN THAT WORK YET.

CAPCOM ROGER. WE COULD USE A HOLE IN THE HELMET PROBABLY, COULDN'T WE?

SC I THINK THAT'S WHAT YOU'RE GOING TO FIND. WE'RE PUTTING IN WITH OUR HELMETS OFF.

CAPCOM ROGER, WE WILL ADVISE.

SC YOU COULD TRY. HOW'S THAT FOR A B52

STATUS REPORT?

CAPCOM APOLLO 7, HOUSTON. I'VE GOT A COUPLE OF COMMENTS ON TV.

SC GO AHEAD.

CAPCOM ROGER. ON THE ALC SWITCH.

SC (GARBLED)

CAPCOM ROGER. ON THE ALC SWITCH HAVE IT OUT, ALC OUT WHEN THE WINDOWS OR FLUID LIGHTS ARE IN THE FIELD OF VIEW OR WHEN YOUR HANDING ACROSS THE SPACECRAFT. THIS WILL GIVE A BETTER PICTURE OF THE DARKER AREAS.

SC ROGER.

CAPCOM AND OF COURSE HAVE IT IN WHEN LIGHT SOURCES ARE NOT IN THE FIELD OF VIEW.

SC GO AHEAD.

CAPCOM AND WHEN THE FLASH LIGHT - DOWN THERE - WHEN THE FLASH LIGHT SHINES DIRECTLY ON AN AREA THIS AREA ONLY SHOWS UP AS A WHITE BLOB. SO IT'S GOOD FOR POINTING, BUT IT DOESN'T HELP THE PICTURE AT ALL.

APOLLO 7 COMMENTARY, 10/16/68, GET: 1310700 (CDT 9:10P) 415/3

SC OKAY. WE'LL FOLLOW YOU UP AND - ON
OUR SCREEN TRANSMITTING TOMORROW MORNING.
CAPCOM ROGER. WALT, THE DOCTOR RECOMMENDS
ONE MORE ACTIFED PRIOR TO SLEEP TONIGHT, IF YOU FEEL NECESSARY.
SC I DON'T FEEL LIKE IT'S GOING TO DO
ME A BIT OF GOOD.
CAPCOM ROGER. WE STILL FEEL IT'LL PROBABLY
HELP A LITTLE THOUGH.
SC WE HAD TWO OR THREE DAYS, AND THEN
AFTER THAT WE HAD TO DO IT ALL OVER AGAIN. WE DON'T HAVE
THAT MUCH ONBOARD. WE'VE GOT IT FOR PAIN AND SEA SICKNESS
AND STUFF LIKE THAT, BUT NOTHING FOR COLDS.
CAPCOM ROGER. WE'RE KIND OF IN THE SAME
POSITION DOWN HERE ALSO WHEN YOU GET A COLD.
SC ROG, THAT'S RIGHT.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68 GET: 1311100 (CDT 9:20P) 416/1

CAPCOM APOLLO 7 HOUSTON, ONE MINUTE LOS REDSTONE
AT 39
THE EAST CHINA SEA.

CAPCOM SAY THAT AGAIN, I MISSED THAT.
SC THE (GARBLE) I RECORDED ARE JUST OFF THE
EAST CHINA COAST

CAPCOM ROGER
PAO THIS IS APOLLO CONTROL 131 HOURS AND 19
MINUTES. GUAM HAS LOS NOW. THAT WAS A FAIRLY LONG PASS
OVER THE MERCURY AND THE GUAM. WE GOT SOME ONBOARD READOUTS
ON THE BATTERY VOLTAGES AND GAVE THE CREW SOME OXYGEN TANK
PRESSURES AT THEIR REQUEST. IT'S PRETTY GOOD COMMUNICATION
THIS TIME. I'LL HIT THE HIGH SPOTS HOWEVER OF THEIR HEALTH
REPORTS. THE LUNAR MODULE PILOT, WALT CUNNINGHAM, REPORTED
HE HAS TAKEN TWO DECONGESTANT TABLETS TO DATE IN THE MISSION
THAT - THE LAST ONE WAS THE NIGHT BEFORE LAST. HE VOICED
THE WISH THAT HE HAD SOME NOSE DROPS ONBOARD WITH HIM. SAID
HE GOT ABOUT SEVEN HOURS SLEEP LAST NIGHT, SOUND SLEEP, HE
THOUGHT IT WAS THE BEST SLEEP HE'D HAD YET. WALLY SCHIRRA,
THE COMMANDER, SAID HE BELIEVES ALL OF THE CREWMEN HAVE BEEN
AVERAGING GOOD SLEEP LATELY. HE REPORTED HE STILL HAS HIS
HEAD COLD, THAT HE'S OFF PILLS AND HE INDICATED THAT THE
CREW MAY REENTER WITH THEIR HELMETS OFF SO THAT THEY WILL BE
ABLE TO RELIEVE THE PRESSURE ON THEIR EARS IF THEIR EARS ARE
STILL STOPPED UP AT THE TIME OF REENTRY. THERE WAS ALSO A
DISCUSSION, WE PASSED UP SOME ADVICE TO THEM THAT MAY ENABLE
BETTER TV PICTURES. PERSONS IN THE HOUSTON AREA WILL HAVE A
CHOICE TO MAKE. TOMORROW MORNING THEY CAN EITHER STEP OUT-
SIDE AND ATTEMPT TO SEE THE SPACECRAFT PASS OVER IN THE
HOUSTON OR THEY CAN STAY IN AND WATCH THE TELEVISION. THE
TELEVISION IS DUE AT 7:15 AM CENTRAL DAYLIGHT TIME THAT IS
THE SAME PASS ON WHICH APOLLO 7 MAY BE VISIBLE. THE S-IVB,
THE SECOND STAGE OF THE LAUNCH VEHICLE MAY ALSO BE VISIBLE
FROM HOUSTON TOMORROW. THE S-IVB WILL APPROACH FROM THE
SOUTHWEST AT 7:10 AM, REACH A MAXIMUM ELEVATION OF 27 DEGREES
DUE SOUTH AT 7:14 AM AND DISAPPEAR OVER THE HORIZON DUE EAST
AT 7:17 AM. APOLLO 7, THE COMMAND AND SERVICE MODULE WILL
APPROACH FROM THE SOUTHWEST AT 7:16 AM, REACH MAXIMUM ELEVATION
OF 30 DEGREES DUE SOUTH AT 7:20 AM AND LEAVE DUE EAST
7:23 AM. THE NEXT STATION TO ACQUIRE WILL THE REDSTONE AT
131 HOURS, 39 MINUTES. THIS IS MISSION CONTROL HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1313900 (CDT 9:45P) 417/1

PAO THIS IS APOLLO CONTROL AT 131 HOURS
39 MINUTES. APOLLO 7 COMING UP ON THE REDSTONE NOW. WE'LL
LISTEN.
CAPCOM APOLLO 7, HOUSTON. REDSTONE STANDING BY.
SC ROGER.
CAPCOM ROGER. LOUD AND CLEAR.
CAPCOM APOLLO 7, HOUSTON. WE'LL LOG ABOUT NOW
FOR A COMPLETION OF YOUR STRATIFICATION TESTER.
SC ROGER.
CAPCOM THE GOOD OLD U.S.A. GOT ANOTHER GOLD
MEDAL TONIGHT. TOMMY SMITH IN A 200 METER RACE, IN A TIME
OF 19.78.
SC MY GOSH, THEY'RE A NEW (GARBLE)
CAPCOM ROG.
CAPCOM WE JUST GOT ANOTHER ONE. BOB SEIGREW,
IN A POLE VAULT WITH A HEIGHT OF 7 FEET 8-1/2 INCHES.
SC SAY THINGS ARE AT A NEW (GARBLE) DOWN
THERE?
CAPCOM ROG.
CAPCOM APOLLO 7, HOUSTON. 1 MINUTES LOS REDSTONE
AT 04, AND WALLY
SC ROGER, WILL THAT BE TOO MUCH PANIC,
THANK YOU.
CAPCOM ROGER. YOU CAN REST IN PEACE TONIGHT.
THE CHRONICLE DESCRIBED THE FLIGHT OF APOLLO 7 TO DATE AS
HIGH QUALITY.
SC WOW, BOY, WE OUGHT TO PUT ONE ON THEIR
HEAD.
SC WE'RE OVER THE HILL ON THE HALF WAY ANY-
WAY, AND THAT'S A GOOD SIGN.
CAPCOM THAT'S AFFIRMATIVE.
PAO APOLLO CONTROL AT 131 HOURS 47 MINUTES.
THE REDSTONE HAS LOS AS APOLLO 7 NEARS THE END OF ITS 83RD
REVOLUTION. THE NEXT STATION TO ACQUIRE WILL BE ASCENSION.
AT 132 HOURS 04 MINUTES, THIS IS MISSION CONTROL, HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1320400 (CDT 10:10P)418/1

PAO THIS IS APOLLO CONTROL, 132 HOURS, 4
MINUTES. APOLLO 7 IN ITS 84TH REVOLUTION NOW. ASCENSION HAS
ACQUIRED, WE'LL STAND BY.

CAPCOM APOLLO 7 HOUSTON THROUGH ASCENSION.
SC ROGER, RON, GOOD MORNING.
CAPCOM GOOD MORNING. HOW'S THE NIGHT'S SLEEP?
SC (UNREADABLE)
CAPCOM SAY AGAIN, DONN.
SC WE WERE JUST WONDERING WHO WERE THE
LASTEST GOLD MEDAL WINNERS DOWN IN MEXICO.

CAPCOM ROGER, LIKE TO CHECK A COUPLE OF SWITCHES
THERE FIRST AND THEN I'LL PASS IT UP TO YOU. THESE SECURE
02 TANK ONE AND TWO HEATER SWITCH TO THE AUTO POSITION.
SC AUTO, ONE IN AUTO AND TWO OFF.
CAPCOM ROGER, ARE THOSE HEATERS OR FANS.
SC FANS
CAPCOM ALL RIGHT, THOSE ARE - FANS ARE CORRECT.
SC RIGHT.
CAPCOM HOW ABOUT THE HEATER SWITCH? ARE THEY
BOTH IN AUTO?
SC AUTO ON
CAPCOM NEGATIVE, WE WANT THEM IN THE AUTO POSI-
TION. DONN, WE HAD A COUPLE OF GOLD MEDAL WINNERS DOWN THERE
TONIGHT. BOB SECRU, SEAGREN, I'M SORRY, WON AT POLE VAULT
AT 17 FEET, 8 AND A HALF INCHES.
SC PRETTY TALL REACH.
CAPCOM ROG. AND TOMMY SMITH WON THE 200 METER
IN 19.78.
SC (GARBLED)
CAPCOM ROGER, AND OPPOSITE OMNI
SC HELLO, HOUSTON TO APOLLO 7.
CAPCOM HOUSTON, GO
SC ROGER, REGARDING THE ANTIBIOTICS AND SO
FORTH, ONE OF THE REASONS WE DON'T HAVE A TEMPERATURE UP HERE
OUR THERMOMETER IS BROKEN. WE CAN'T GET IT TO GO OVER 94,
SO WE DON'T KNOW IF WE'VE GOT A FEVER OR NOT.

CAPCOM ROG, UNDERSTAND. APOLLO 7 HOUSTON
SC ROG. GO.
CAPCOM ROG. BE ADVISED ON YOUR CMC POWER UP,
WE'LL UPDATE YOU A LITTLE LATER, BUT WHAT WE ARE GOING TO TRY TO
DO IS TO POWER UP OVER ONE STATION AND THEN POWER IT DOWN
OVER THE OTHER STATION SO WE CAN TAKE A LOOK AT SOME OF THE
BITS IN THERE.
SC ROG, UNDERSTAND.
CAPCOM AND WE GOT A PRETTY GOOD IDEA OF THE
OTHER TWO GUYS HEALTH. CAN YOU GIVE AN ACCOUNT OF YOUR
RON DOWN, HEALTH, MEDICATION AND SLEEP?
SC ROG, I JUST WOKE UP. I GOT A GOOD SOLID

APOLLO 7 COMMENTARY, 10/16/68, GET: 1320400 (CDT 10:10P)418/2

EIGHT HOURS SLEEP AND WALT AND WALLY ARE BOTH IN THE SACK.
AND I DON'T KNOW, I THINK THEY MAY HAVE CALLED EARLIER WITH
THEIRS.

CAPCOM YEAH, WE HAVE THEIRS, BUT WE DIDN'T GET
YOURS.

SC OKAY, AT 132 HOURS THEY EACH HAD TWO
ASPIRINS AND LMP RECORDED FIFTEEN CLICKS OF WATER.

CAPCOM ROGER.

SC AND - I HAVEN'T HAD A DRINK YET AND I
HAVEN'T TAKEN ANY MEDICINE LATELY.

CAPCOM ROGER.

SC WELL, ALSO THE COMMANDER HAD TWENTY CLICKS
OF WATER AT 13130.

CAPCOM ROGER. ABOUT 30 SECONDS LOS MERCURY AT
41.

SC ROGER.

CAPCOM APOLLO 7, HOUSTON, YOU MIGHT TRY CENTER
POSITION ANOMALY.

SC CENTER POSITION OF WHAT?

CAPCOM BIOMED SWITCH.

PAO THIS IS APOLLO CONTROL AT 132 HOURS,
13 MINUTES, ASCENSION LOS. THAT WAS THE COMMAND MODULE
PILOT, DON EISELE IN THIS PASS OVER ASCENSION. HE'S JUST
UP FROM HIS SLEEP PERIOD. HE REPORTS THAT WALLY SCHIRRA
AND WALT CUNNINGHAM HAVE GOT INTO THEIR SLEEPING BAGS, SET-
TLING FOR 8 HOURS. HE REPORTED THEY - EACH TOOK TWO ASPIR-
INS AT 132 HOURS ELAPSED TIME. THAT IS THE TIME THEIR
SLEEP PERIOD STARTED. HE REPORTED HE HAD GOTTEN 8 SOLID HOURS
OF SLEEP, AND THAT HE HAS TAKEN NO MEDICATION LATELY. ALSO
HE REPORTED THAT THE THEROMETER IS BROKEN SO THEY CAN'T
TELL WHETHER THEY HAVE FEVERS OR NOT. THE NEXT STATION TO
ACQUIRE WILL BE THE MERCURY AT 132 HOURS, 41 MINUTES. THIS
IS MISSION CONTROL, HOUSTON.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1324100 (CDT 10:45 PM) 419/1

PAO THIS IS APOLLO CONTROL AT 132 HOURS
4L MINUTES. APOLLO 7 IS AT MERCURY NOW.
SC (GARBLE) WHEN WE GOT
INTO ALTITUDE AT THE (GARBLE) AND EVERYTHING (TOO MUCH STATIC
TO HEAR) AT THE HORIZON AND SUCH IN THE SEXTANT. THE FIXED
LINE OF SIGHT WAS VERY INTERESTING. IN FACT IT WAS PRETTY
HARD TO PICK OUT ANYTHING THAT YOU COULD USE. THERE WAS ONE
LINE THAT MIGHT PASS FOR A REPEATABLE LINE, BUT IT WAS PRETTY
TENUOUS. SUBSEQUENT TO THAT, I DID A T-52 AUTO OPTICS CHECK
AND FOUND THAT THE STAR WAS UP THERE, BUT IT WAS AT A SLIGHTLY
DIFFERENT SHAFT AND TRUNNION ANGLE. THAT WAS THE REASON WE
DIDN'T PICK IT UP.

CAPCOM ROGER.

SC SO THE GIST OF IT ALL WAS THAT I DON'T
THINK IT WAS A TOO WORTHWHILE OR REALISTIC WAY TO PERFORM THAT
PROGRAM OR IT WASN'T DESIGNED TO BE USED THAT WAY SO I SUGGEST
THAT IF WE HAVE ANY TIME OR FUEL TO PLAY AT THIS ANGLE, WE
TRY TO USE THE LUNAR LANDMARKS AND STARS.

CAPCOM ROGER.

SC HOUSTON, APOLLO 7.

CAPCOM HOUSTON, GO.

SC ROGER, YOU WERE MAKING SOME COMMENTS
A WHILE AGO REGARDING POWER UP AND POWER DOWN ON THE COMPUTER.

CAPCOM ROG.

SC WHEN DID YOU WANT TO DO THAT? ARE YOU
TALKING ABOUT THE NORMAL POWER UP FOR THE NEXT SEQUENCE OF
ACTIVITY?

CAPCOM NEGATIVE. THE CMC UPDATA IS ABOUT 135
HOURS, SOMEWHERE AROUND THERE.

SC OH YEAH. OKAY. WE COULD DO IT NOW AND
POWER DOWN OVER THE CANARYS.

CAPCOM ROG. STAND BY.

CAPCOM ROG. DONN, YOU CAN GO AHEAD AND POWER IT
UP NOW. WE'LL POWER IT UP OVER GUAM AND THEN POWER DOWN OVER
REDSTONE.

SC OKAY. WELL, THAT'S CUTE. WE GOT A RE-
START LIGHT.

CAPCOM ROG. THAT'S NORMAL.

PAO THIS IS APOLLO CONTROL, 132 HOURS 49 MIN-
UTES. GUAM HAS ACQUISITION NOW. WE'LL CONTINUE WITH THIS
PASS.

CAPCOM APOLLO 7, HOUSTON, 1 MINUTES TO LOS
REDSTONE AT 13.

SC ROGER.

CAPCOM AND YOU PASSED THE HALF-WAY MARK WHILE
YOU WERE ASLEEP, THERE.

SC YEAH, THAT'S GREAT. DO YOU WANT ME TO
~~POWERDOWN~~ THE COMPUTER NOW OR WAIT?

APOLLO 7 COMMENTARY, 10/16/68, GET: 1324100 (CDT 10:45 PM) 419/2

CAPCOM NEGATIVE. LET'S WAIT UNTIL WE GET TO
REDSTONE.

SC OKAY, I'LL JUST LET IT SIMMER.

CAPCOM ROGER.

PAO THIS IS APOLLO CONTROL, 132 HOURS 54 MIN-
UTES. APOLLO 7 OVER THE HORIZON AT GUAM NOW. THE REDSTONE
WILL ACQUIRE AT 133 HOURS 13 MINUTES.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 1331300 (CDT 11:15P) 420/1

PAO THIS IS APOLLO CONTROL 133 HOURS 13 MIN-
UTES INTO THE MISSION OF APOLLO 7. WE NOW HAVE ACQUISITION
AT THE REDSTONE TRACKING SHIP. LET'S LISTEN IN.
CAP COM APOLLO 7, HOUSTON THROUGH REDSTONE.
SC ROGER HOUSTON.
CAP COM ROGER, LOUD AND CLEAR. APOLLO 7, HOUSTON
YOU CAN POWER DOWN ANYTIME OF THE CMC AND JUST PRIOR TO LOS
SOMETIME.
SC OKAY.
CAP COM APOLLO 7, HOUSTON, OPPOSITE OMNI.
APOLLO 7, HOUSTON.
SC ROGER, HOUSTON GO.
CAP COM ROG, LOOKS LIKE YOUR BACK PRESSURE
VALVE IS OPEN NOW. WOULD YOU MANUALLY CLOSE THE BACK PRES-
SURE CONTROL VALVE?
SC ROGER, CLOSE IT.
CAP COM WAIT 15 MINUTES THEN RE-SERVICE IT AND
LEAVE IT OFF THE LINE.
SC OKAY. WOULD YOU LOG ME ... WATER GUN
AND TWO ASPIRIN, PLEASE?
CAP COM MISSED THE CLICKS, SAY AGAIN.
SC 30 CLICKS ON THE WATER GUN AND 2 ASPIRIN.
CAP COM ROGER.
PAO THIS IS APOLLO CONTROL 133 HOURS 21 MIN-
UTES INTO THE MISSION OF APOLLO 7. WE'RE LEAVING REDSTONE
ACQUISITION AND WE'RE ANTICIPATING CANARY ISLANDS AT 135:17,
CORRECTION, CANARIES 133:45. DURING THIS PASS, EISELE INDI-
CATED HE HAD TAKEN 30 CLICKS OF WATER WHICH IS 15 OUNCES AND
2 ASPIRIN AND AT 133 HOURS 21 MINUTES, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/16/68, GET: 13345100 (CDT 11:48) 421/1

PAO THIS IS APOLLO CONTROL, 133 HOURS,
45 MINUTES INTO THE MISSION OF APOLLO 7. WE HAVE INDICATED
THAT - AT 13345 WE WOULD HAVE ACQUISITION AT CANARY ISLANDS
BUT IT APPEARS THE GROUND TRACT IS TOO FAR SOUTH FOR SUCH
ACQUISITION. THEREFORE, WE HAVE ANOTHER LONG DRY SPELL.
THE NEXT ACQUISITION POINT WILL BE THE REDSTONE TRACKING
SHIP AT 13447. AT 13346, THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/17/68, GET: 1344700 (CDT 12:49A) 422/1

PAO THIS IS APOLLO CONTROL 134 HOURS 47 MINUTES INTO THE MISSION OF APOLLO 7. WE ARE APPROACHING THE REDSTONE TRACKING SHIP ONCE AGAIN, WE SHOULD HAVE ACQUISITION IN A VERY FEW SECONDS. LET'S STAND BY.

CAP COM APOLLO 7, HOUSTON.

SC HELLO DERE.

CAP COM ROG, THIS IS CAPTAIN MOHO FROM DEEP IN THE TRENCHES OF THE MOCR. I'VE GOT A BLOCK DATA UPDATE FOR YOU DONN.

SC OKAY, SURE (LAUGHING)

CAP COM I'M A BIG TV FAN OF YOURS NOW, DONN.

SC SAY AGAIN.

CAP COM I SAY I'M A BIG TV FAN OF YOURS. I EVEN HAD MY WIFE WAKE ME UP THIS MORNING TO WATCH IT.

SC OH, IS THAT RIGHT? WELL, GO AHEAD WITH YOUR UPDATE, TRENCH MAN.

CAP COM ROG. 087 DASH 2 ALPHA +266 -0270 136 29 19 3483, 088 DASH 1 BRAVO +230 -0600 137 54 53 3591, 089 DASH 1 ALPHA +292 -0622 139 30 06 3430, 090 1 BRAVO +314 -0620 141 06 07 3386, 091 DASH 1 ALPHA +291 -0622 142 42 26 3541, 092 DASH 1 ALPHA +224 -0630 144 16 25 3073. STANDING BY FOR READBACK.

SC OKAY 087 DASH 2 ALPHA +266 -0270 136 29 19 3483, 088 DASH 1 BRAVO +200 - IS THAT 20 OR 230.

CAP COM +230

SC ROGER, CAN'T READ MY OWN WRITING.

+230 -0600 137 54 53 3591, 089 DASH 1 ALPHA +292 - 0622 139 30 06 3430, 090 DASH 1 BRAVO +314 -0620 141 06 07 3386, 091 DASH 1 ALPHA +291 -0622 142 42 26 3541, 092 DASH 1 ALPHA +224 - 0630 144 16 25 3073.

CAP COM READBACK IS CORRECT.

SC OKAY, COULD YOU GIVE ME A NAV UPDATE AND ALSO A STAR CHART UPDATE?

CAP COM ROG, STAND BY. APOLLO 7, HOUSTON I HAVE THE MAP AND STAR CHART UPDATES.

SC ROGER, GO AHEAD.

CAP COM REV. 85 NODAL CROSSING 133 + 39 + 58. 33.0 WEST, FOR THE MAP RIGHT ASCENSION IS 414.

SC ROGER, UNDERSTAND. SAY AGAIN THE SPEED RATE ASCENSION.

CAP COM 4:14.

SC ROGER, I GOT 'CHA, THANK YOU.

CAP COM OKAY. (PAUSE) APOLLO 7, HOUSTON, OPPOSITE OMNI PLEASE.

SC ROGER.

CAP COM APOLLO 7, HOUSTON, ONE MINUTE LOS RED STONE, CANARIES AT 17.

SC OKAY.

APOLLO 7 COMMENTARY, 10/17/68, GET: 1344700 (CDT 12:49A) 422/2

PAO THIS IS APOLLO CONTROL 134 HOURS 55 MIN-
UTES INTO THE MISSION OF APOLLO 7. WE'VE JUST LOST ACQUISITION
AT REDSTONE TRACKING SHIP. WE'RE ANTICIPATING CANARY ISLANDS
AT 135 HOURS AND 17 MINUTES. THIS IS APOLLO CONTROL.

END OF TAPE

APOLLO 7 COMMENTARY, 10/17/68, GET: 1351700 (CDT 1:20) 423/1

PAO THIS IS APOLLO CONTROL, 135 HOURS,
17 MINUTES INTO THE MISSION OF APOLLO 7. WE'RE BEGINNING
OUR EIGHTY SIXTH REVOLUTION. WE'RE COMING UPON CANARY ISLAND
ACQUISITION IN A VERY FEW SECONDS. LET'S LISTEN IN.

CAPCOM APOLLO 7, HOUSTON. THROUGH CANARY.

SC ROGER.

CAPCOM SAY, DONN, I HAVE RATHER EXTENSIVE INFOR-
MATION REGARDING THIS LANDMARK TRACKING. I'D LIKE TO START
PASS IT UP. IT'S A LOT OF VERBAGE - BUT I DON'T KNOW HOW
ELSE TO DO IT.

SC OKAY, STANDBY. GO AHEAD, BILL.

CAPCOM RIGHT. I GUESS WHEN I GET THROUGH HERE
ALL THE TALK IS GOING TO RESULT IN ABOUT - ONLY TWO CHANGES
IN THE PROCEDURES. I WOULD LIKE TO GO THROUGH IT SO YOU
GET AN IDEA OF THE THINKING THAT HAS BEEN GOING HERE.

SC OKAY, GO AHEAD.

CAPCOM ALL RIGHT. FIRST POINT, TOMORROW WE
WILL PERFORM LANDMARK TRACKING ON THE THREE REVS SCHEDULED
IN THE FLIGHT PLAN. THAT IS ON 90 - 91 AND 92. AND SECOND
POINT, ON YESTERDAY'S OR TODAY'S - IT DEPENDS ON HOW YOU
LOOK AT IT, LANDMARK TRACKING THE FOLLOWING PROBLEM RESULTED
IN AUTO OPTICS NOT ACQUIRING ON ALL THREE LANDMARKS. OR TO
SAY ANOTHER WAY, THIS IS THE REASON AUTO OPTICS DIDN'T WORK.
THE TRUNNION WILL NOT DRIVE UNTIL THE COMPUTED TRUNNION IS
LESS THAN 38 DEGREES. THE SHAFT IS DRIVING AT THIS TIME
WHICH GIVES THE IMPRESSION THAT IT IS ACQUIRING. AND APPAR-
ENTLY YOU STARTED OUT WITH ZERO OPTICS AND WITH ZERO OPTICS
WHEN THE LESS THAN 38 DEGREE TRUNNION OCCURS, THE OPTICS
HAVE THEN APPROXIMATELY 38 DEGREES TO DRIVE IN TRUNNION TO
ACQUIRE THE LANDMARK. NOW THIS 38 DEGREES PLUS A POSSIBLE
OVERSHOOT RESULTS IN A THING HUNTING AND THE AUTO OPTICS
NOT ACQUIRING.

SC OKAY, BILL. I KNOW ALL THAT. WHAT
HAPPENED YESTERDAY IS THAT IT NEVER CAME OUT OF ZEROS AS
I COULD TELL. MAXIMUM TARGET GOT TO THE 38 DEGREES AND DID
NOT APPEAR TO DRIVE. AND ALSO ON ONE OF THE LANDMARKS, IT
WAS BEYOND THE 38 DEGREE LIMIT THE WHOLE TIME. IT WAS JUST
LAYING OFF TO ONE SIDE.

CAPCOM ROGER. OKAY, I WAS AFRAID OF THAT.

SC YOU SEE I DON'T KNOW HOW IT IS SUPPOSED
TO WORK. IT DIDN'T BECAUSE THE - ONE LANDMARK HAD AN EFFECT
ON TWO OF THEM. IT WAS BEYOND THE FIELD OF VIEW.

CAPCOM ON TWO OF THEM IT WAS BEYOND THE FIELD
OF VIEW.

SC I KNOW WHAT HAPPENED. IT NEVER MOVED
OFF CENTER EVEN WHEN IT GOT FROM WITHIN 38 DEGREES. RIGHT
NOW IT IS SUPPOSED TO DRIVE UP AND PICK IT UP WHEN YOU GET
WITHIN 38 DEGREES OF IT.

CAPCOM OKAY, I GOT THE PICTURE. TWO OF THE

CAPCOM LANDMARKS GIVEN TO YOU - WERE ACTS BEYOND
THE LIMITS. AND ONE OF THEM EVEN AFTER YOU GOT IT WITHIN
THE 38 DEGREES, IT NEVER WENT OFF THE STOPS IN TRUNNION.

SC WELL, THAT'S WHAT IT APPEARED TO ME,
YEAH.

CACCOM OKAY, THANK YOU. SORRY I DIDN'T MEAN
TO BELABOR THAT POINT.

SC NO, THAT'S OKAY, I UNDERSTAND WHAT YOU
MEAN. MY POINT ABOUT IT NOT WORKING - IT DOESN'T DO YOU
ANY GOOD. I GUESS THAT IS THE POINT.

CAPCOM OKAY, IF IT DOESN'T WORK, THIS PROCEDURE
I WAS GETTING READY TO GO THROUGH IS NOT GOING TO BE ANY
GOOD EITHER. BUT - LET ME STANDBY AND TAKE ANOTHER LOOK
AT THIS BEFORE I OCCUPY YOUR TIME.

SC THAT IS OKAY, GO AHEAD AND READ IT UP
FIRST.

CAPCOM OKAY, THEY - THE NEXT POINT WAS THE
FIRST LANDMARK MAY HAVE BEEN TOO FAR OUT OF PLAN. APPAR-
ENTLY THAT'S CORRECT IN WHAT YOU SAID. ON THE SECOND LAND-
MARK YOU MAY NOT HAVE WAITED UNTIL THE LESS THAN THE
38 DEGREE CONSTRAINT WAS MET BEFORE - STARTING. APPARENTLY,
THIS IS THE TIME IT WOULD HAVE COME OFF ZERO.

SC NOW WAIT A MINUTE. THAT'S NOT TRUE. I
WAITED UNTIL WALT SAID HE SAW THE THING OUT THE WINDOW AND
THEN I WENT FOR IT MANUALLY AND BY THAT TIME IT WAS ALMOST
UP TO THE CENTER OF THE RADIO ANTENNA. OR WELL WITHIN THE
38 DEGREES AND I DID ATTEMPT TO GET ON THE TRACK BUT I
THOUGHT IT WAS SO CLOSE TO CENTER BY THEN - THE OPTICS
COULDN'T KEEP UP ON IT.

CAPCOM OKAY.

SC IT NEVER DID DRIVE OUT THERE AUTOMATIC-
ALLY TO PICK IT UP.

CAPCOM ROGER, THAT'S THE POINT -

SC ZERO WITH A SHAFT ROLLED AROUND.

CAPCOM OKAY, WELL THAT'S THE POINT YOU ARE
JUST MAKING, OKAY. ON THE - ON THE THIRD LANDMARK, YOU
KEYED IN A PLUS SIGN ON THE LATITUDE. WHAT THAT MEANS IS
THAT MAYBE THERE WAS A WRONG ALGEBRAIC SIGN.

SC OKAY, THAT WAS MY QUE. THAT WAS ALSO
BEYOND THE FIELD OF DUTY AND ALSO HAD TO GO OVER AND WORK
MANUALLY AND IT WAS STILL -

CAPCOM OKAY, THAT WAS ANOTHER ONE THAT WAS
BEYOND -

SC ALSO, THE THING OUTSIDE THE WINDOW ON THAT
ONE ALSO.

CAPCOM OKAY, THANK YOU.

SC WHAT WAS ACCOMPLISHED - APPARENTLY WHEN
THESE GUYS STAY IN THE SOUTH - THE RELAY SOUTH WHICH MEANS
THEY GOT ROLLS PITCHING 15, 20 DEGREES FOR YOU TO SEE IT

SC WHICH IS LITTLE BIT FAR BECAUSE THAT
PUT IT WAY OUT IN A STANGE WEAK ANGLE.

CAPCOM THAT - OKAY, ONE MORE ITEM. THE FOLLOW-
ING CHANGES TO PROCEDURES SHOULD RESULT IN SUCCESSUL AUTO
OPTICS. A, IS - I AM SURE YOU ALREADY DOING THIS DONN. I
AM GOING TO GO THROUGH IT ANYWAY. TO PROVIDE EARLIER ACQUI-
SITION TIME REVISE STEP 5 IN THE PROCEDURE WHICH I DOUBT
YOU ARE EVEN USING TO GET TO GET THE SPACECRAFT EQUAL TO
10 DEGREES VERSUS 23 DEGREES. AND I THINK YOU SAID DOWN
AT THE CAPE YOU WERE USING 10 DEGREES.

SC THAT'S WHAT WE HAVE BEEN USING ALL ALONG,
YEAH.

CAPCOM I DIDN'T CHECK IN THE CHECKLIST AND THAT
IS MY GOOF. OKAY, AND ALSO I GUESS THE POINT THAT IS A
LITTLE BIT DIFFERENT HERE - I HADN'T - I DIDN'T KNOW ABOUT
IT. WHEN YOU CALL UP - BEFORE YOU CALL UP P22, MAINLY, -
LET ME GET THIS. CALL P22, EXECUTE PROCEDURE THROUGH ON-
BOARD CHECKLIST EXCEPT MAINLY POSITION SHAFTS ZERO TRUNNION
35 DEGREES PRIOR TO ENTER,

SC STANDBY.

CAPCOM APOLLO 7, HOUSTON. WE ARE COMING UPON
LOS. WE'LL PICK YOU UP AT - S-BAND VOLUME UP AT HONEYSUCKLE.

SC OKAY.

PAO THIS IS APOLLO CONTROL, 135 HOURS,
25 MINUTES INTO THE MISSION OF APOLLO 7. WE HAVE JUST LOST
ACQUISITION AT CANARY ISLANDS. OUR NEXT ACQUISITION POINT
WILL AGAIN BE THE REDSTONE TRACKING SHIP AT 13621. WE'RE
NOW IN OUR EIGHTY SIXTH REVOLUTION. YOU HEARD ASTRONAUT
EISELE TALK TO CAPCOM POGUE HERE IN THE CONTROL CENTER
AT SOME LENGTH CONCERNING THE AUTO OPTICS. AND THE REASON
YESTERDAY THEY DID NOT FUNCTION ON THE LANDMARK TRACKING
PROBLEMS AS THEY SHOULD HAVE. SEEMINGLY, CENTERING AROUND
TRUNNION PROBLEMS AND LANDMARKS BEING BEYOND THE LIMITS OF
AUTO OPTICS SYSTEM. AT 135 HOURS, 25 MINUTES THIS IS
APOLLO CONTROL.END OF TAPE

END OF TAPE

APOLLO 7 COMMENTARY, 10/17/68, GET: 1362100 (CDT 2:24A) 424/1

PAO THIS IS APOLLO CONTROL 136 HOURS 21 MINUTES INTO THE MISSION. WE NOW HAVE VOICE ACQUISITION AT REDSTONE TRACKING SHIP. LET'S LISTEN IN.

CAP COM APOLLO 7, HOUSTON THROUGH REDSTONE.

SC ROGER, HOUSTON, APOLLO 7.

CAP COM WE'LL TRY TO CARRY ON WITH THIS, AH - FINISH UP THE LITTLE BLURB I HAVE HERE ON LANDMARK TRACKING.

SC OKAY, GO AHEAD.

CAP COM OKAY. THIS INVOLVES A SUGGESTED CHANGE IN THE PROCEDURE. AT STEP 6 IN THE CHECK LIST WHICH IS THE PERFORM AUTO OPTICS POSITION CODE, CODE 11, AND IT IS A SUGGESTED CHANGE PRIOR TO THE INTER FOLLOWING THAT CODE 11. THE IDEA IS THAT AFTER THIS STEP 6, BEFORE YOU HIT THE INNER BUTTON, MANUALLY POSITION SHAFT ZERO TRUNION 35 DEGREES, TRUNION 35 DEGREES.

SC OKAY. THEY NEED TO PUT A CNC.

CAP COM YES, AFFIRMATIVE. THAT'S CORRECT AND THEN OPTIC MODE TO CNC AND THEN ENTER.

SC OKAY, I THINK I SEE WHAT YOU'RE DRIVING AT.

CAP COM RIGHT.

SC DO IT THAT WAY.

CAP COM ROG, IT SETS THE TRUNION TO A BETTER INITIAL VALUE TO MINIMIZE THE AUTO OPTICS ACQUISITION TIME.

SC OKAY.

CAP COM LET'S SEE. COUPLE MORE ITEMS HERE. IF UNABLE TO ACQUIRE TARGET, THEN TRACK UNKNOWN LANDMARKS SUCH AS COAST LINES, ET CETERA.

SC AH, ROGER, THAT'S A GOOD DEAL.

CAP COM AFTER LANDMARK TRACKING, WE WANT TO PERFORM A SEXTANT STAR OBSERVATION WITH APPROXIMATELY 35 DEGREE LINE OF SIGHT TO THE SUN. THE SCANNING TELESCOPE TEST DATA CORRELATES WELL WITH WHAT WAS PREDICTED AND WE ARE SATISFIED WITH THAT DATA. AFTER THIS TEST, THE STAR COUNT TEST, WILL BE CLOSED.

SC ROGER. SAY AGAIN, YOU WANT TO DO WHAT NOW?

CAP COM AFTER LANDMARK TRACKING, WE WANT TO PERFORM A SEXTANT STAR OBSERVATION WITH APPROXIMATELY 35 DEGREE LINE OF SIGHT TO THE SUN.

SC OH, I SEE WHAT YOU MEAN. OKAY.

CAP COM WE WILL UPDATE THAT IN THE FLIGHT PLAN AND BY THE WAY THAT FLIGHT PLAN UPDATE I'LL START OVER ANTIGUA.

SC ROG.

CAP COM ONE FINAL ITEM. WE ARE CONSIDERING STAR LUNAR HORIZON SIGHTINGS FOR LATER IN THE FLIGHT.

SC ROGER. YOU BETTER MAKE IT PRETTY SOON. THAT SUN IS GOING LOWER EACH DAY. IT'S RECEDING TOWARD THE

APOLLO 7 COMMENTARY, 10/17/68, GET: 1362100 (CDT 2:24A) 424/2

SC EAST AND THERE ISN'T MUCH LEFT NOW.
MUCH SPACE BETWEEN IT AND THE SUN I MEAN.

CAP COM ROG. OKAY.

SC I WAS THINKING PERHAPS, BILL ARE YOU
STILL THERE?

CAP COM ROG, GO.

SC AFTER THE LAST LANDMARK PASS, ON THAT
NIGHT PASS, FOLLOWING THAT IF WE PERHAPS COULD DO THE SEXTANT
CHECK THEN, SEXTANT ER I MEAN THE LUNAR LANDMARK CHECK.

CAP COM WE'LL TAKE A LOOK AT THAT. SOUNDS LIKE
A GOOD IDEA.

SC BILL, I'VE BEEN WATCHING IT COME UP AND
IT'S IN A GOOD POSITION. I CAN USE ANY ONE OF ABOUT THREE
STARS PLUS I THINK I CAN EITHER GET A LANDMARK OR THE LUNAR
OR THE LIMB OF THE MOON EITHER ONE, BUT IT'S RECEDING TOWARD
THE EAST AND IF WE WAIT ANOTHER DAY OR TWO, I'M AFRAID WE'RE
NOT GOING TO HAVE ANY NIGHTIME LEFT WITH THE MOON UP.

CAP COM WELL, THAT'S A GOOD POINT THERE. THOSE
THREE STARS YOU MENTIONED THERE, ARE THOSE APOLLO STARS?

SC YEAH, THERE'S ALPHERATZ AND PROCYON AND
AH, THERE'S ONE OTHER ONE I'LL HAVE TO LOOK - OH, REGULUS
EXCEPT IT'S A LITTLE TOO CLOSE.

CAP COM OKAY, THANK YOU.

SC ... DENEbola.

CAP COM DONN, WOULD YOU TURN THE O2 TANK TWO
FANS ON FOR ABOUT THREE MINUTES.

SC SURE WILL. (PAUSE) HOUSTON, APOLLO 7.

CAP COM GO.

SC ROGER, I'VE GOT A COMMENT RELATIVE TO
THAT STAR COUNT. I HOPE THE DAYLIGHT STAR PEOPLE ARE NOT
READING TOO MUCH INTO THESE RESULTS WE'RE GETTING. THE FACT
IS UNLESS YOU CAN SEE 40 OR 50 STARS OUT THERE, YOU CAN'T
SEE ENOUGH TO REALLY SAY WHAT PART OF THE SKY YOU'RE LOOKING
AT.

CAP COM OKAY, I'VE GOT IT WRITTEN DOWN.

SC (CUTTING OUT) HARD TO IDENTIFY EVEN
THOUGH YOU CAN SEE GOODLY NUMBERS SOMETIMES, YOU DON'T KNOW
WHAT THEY ARE.

CAP COM RIGHT. (PAUSE) APOLLO 7, HOUSTON,
ONE MINUTE LOS REDSTONE. YOU CAN TURN THOSE FANS BACK OFF
AND WE'LL HAVE ANTIGUA AT 39.

SC ROGER.

PAO THIS IS APOLLO CONTROL 136 HOURS 29 MIN-
UTES INTO THE MISSION OF APOLLO 7. WE ARE COMPLETING OUR
86TH REVOLUTION GOING INTO OUR 87TH REVOLUTION VERY SHORTLY.
ANTICIPATING CONTACT WITH ANTIGUA AT 36 HOURS 39 MINUTES INTO
THE MISSION. THAT PASS YOU HEARD ASTRONAUT POGUE IN THE CON-
TROL CENTER AND ASTRONAUT EISELE IN THE SPACECRAFT HAVE A

APOLLO 7 COMMENTARY, 10/17/68, GET: 1362100 (CDT 2:24A) 424/3

PAO CONVERSATION CONCERNING LANDMARK TRACK-
INT, SEXTANT STAR OBSERVATION, THEY'RE CONSIDERING STAR LUNAR
HORIZON SIGHTINGS LATER ON IN THE FLIGHT, HAD SOME CONVERSA-
TION CONCERNING THAT. EISELE ALSO INDICATED THAT THE STARS
ARE HARD TO IDENTIFY. AT 136 HOURS 30 MINUTES INTO THE
MISSION OF APOLLO 7, THIS IS APOLLO CONTROL.

END OF TAPE

PAO THIS IS APOLLO CONTROL, 136 HOURS,
39 MINUTES INTO THE MISSION OF APOLLO 7. WE'RE COMING UPON
ACQUISITION WITH ANTIGUA TRACKING STATION, BEGINNING OUR
EIGHTY SEVENTH REVOLUTION. LET'S LISTEN AT IT.

CAPCOM APOLLO 7, HOUSTON. APOLLO 7, HOUSTON
THROUGH ANTIGUA. I HAVE A FLIGHT PLAN UPDATE WHEN YOU GET
READY TO COPY.

SC STANDBY A M'NUTE.

CAPCOM OKAY, STAY BY.

SC GO AHEAD, BILL.

CAPCOM ROGER. WE'LL BE STARTING ON PAGE 2-48
AT ABOUT 140 HOURS. AND OVER THERE IN THE BOX WHERE IT SAYS
GO NO GO 106-1, THE NEXT ITEM IS STATE VECTOR AND - LET'S
SEE WE'LL BE PASSING THAT UP AT 14243.

SC THAT'S YOUR TIME TAG?

CAPCOM THAT'S YOUR TIME TAG, EXCUSE ME. THAT'S
CORRECT.

SC OKAY.

CAPCOM AND DELETE THE REFERENCE TO THE W MATRIX.
AND FOR THE LANDMARKS, WE HAVE A T ALIGN OF 141 PLUS 14.

SC ROGER, UNDERSTAND. T ALINE 141 PLUS 14.

CAPCOM AFFIRMATIVE. AND AT THAT TIME YOU'LL
ALSO GET LANDMARK ID UPDATES.

SC OKAY.

CAPCOM ON NEXT PAGE AT 140 HOURS, ADD SET UP
TV.

SC SAY AGAIN TIME.

CAPCOM 140 HOURS.

SC ROGER, SET UP TV.

CAPCOM AT 141 PLUS 12, ADD TV ON. THIS IS
2 MINUTES BEFORE TEXAS ACQUISITION.

SC ROGER. TV ON AT 141 PLUS 2.

CAPCOM AFFIRMATIVE. AT 141 PLUS 30 ADD FUEL
CELL O2 PURGE.

SC OKAY, FUEL CELL PURGE AT 30 FOR OXYGEN.

CAPCOM AFFIRMATIVE. AT 142 PLUS 35, REPLACE
THE - 3 BY 3. ON THE P22 ORB NAV THERE IS A PARENTHETICAL
INSERTION THERE 9 BY 9, MAKE THAT 3 BY 3.

SC ALL RIGHT, I DON'T UNDERSTAND. YOU
DON'T DO THAT ONBOARD, DO YOU?

CAPCOM NEGATIVE.

SC I UNDERSTOOD THAT THAT MEANT -

CAPCOM OKAY, OKAY, FORGET IT, SORRY. OKAY, NOW
AT 143 PLUS 40 ADD STATE VECTOR UPDATE P52 PERMITTING. WHAT
THAT MEANS IS THEY'LL GIVE YOU A STATE VECTOR UPDATE AND IF
IT DOESN'T INTERFERE WITH THE P52.

SC OKAY. WHAT TIME IS THAT - 14330?

CAPCOM 143 PLUS 40.

SC OKAY, VERY GOOD.