K Brown

SL-II MC-97/1 -102
Time: 3:23 p.m. CDT, 1:07:23 GET
5/26/73

SC Pete, tell them about the one operation; it wasn't any easier.
SC Yes, the doctor wanted me to remind you, though, that the one operation that has not changed in the history of manned space flight was just performed by a CDR, and, as usual, its backup (garble) it takes approximately 1 (garble).
CC (Laughter) Roger; copy.
SC (garble) and we just passed Florida, as I'm sure you know. And that we were able to make out - the (garble) Cape and from there we could all (garble) could not actually see the buildings. Do you see the cleared area around the VAB? Do you see the (garble) way out to the pads, both pads, and also make out quite distinctly the (garble).
CC Wow, must be pretty down there today.
SC It looks like they get some super big boomers in Miami, and that's just right to the Cape, too.
CC Roger. In fact, one of them must have got us, because we are having a little trouble with our command lines. That teleprinter message on the procedure change may be a little late getting up to you. However, there are no changes, at least up to step 5.
SC Okay, good enough. Gosh, something's coming in now.
CC Okay, the step 5 was in the parasol deployment.
SC That looks like black magic - that stuff coming out of that teleprinter.
CC Skylab, Houston. For info, we'll be dumping the data recorded over Bermuda, which is just a couple of minutes from now.
SC Okay, and as I remember, the cue cards for the (garble) deployment are in the back of the rendezvous book. Is that right?
CC Stand by.
CC That's a correct location. Back of the rendezvous book.
SC Okay, thank you.
SC Hey, Hank, you with us?
CC Roger.
SC Okay, I rewound the video tape recorder. It took about 3 minutes and 20 seconds for it to rewind. That's all configured for you.
CC Roger, thank you.
CC Skylab, Houston. Teleprinter load should be up to you now, and you look those over. If you got any comments, you can give them back to us. We got about 1 minute left on this pass.

SL-II MC-97/2
Time: 3:23 p.m. CDT, 1:07:23 GET
5/26/73

SC Okay, Houston, I've got them in hand, and the teleprinter does a very nice job, except it's awfully faint.

SC We don't know whether it's this particular paper or whether that's the way it's going to be the rest of the time. (garble) difficult to read.

CC You can read it all, can't you, Pete?

SC I think so, Hank.

SC Okay, we're just short of LOS. And our next contact is going to be Carnarvon at 13, which is a long time from now, and we'll be dumping the recorder there again.

SC Okay, hopefully we'll have had lunch by then, and we'll work these changes while we're doing lunch.

CC Okay.

PAO This is Skylab Control. We've had loss of signal apparently. The station is in the eastern test range. Next station Carnarvon in 39 minutes. During the just completed stateside pass, the commander reported that he could see runways on airfields across the northern United States. And commented that, hopefully, we'll do pretty well with EREP, referring to the earth resources experiment package, which does multispectral scanning and photography of Earth features. He also commented that the mobility in zero-g, going back and forth along the multiple docking adapter and airlock to the CSM and performing their activation chores, he commented that the mobility is super. Coming across Florida they reported seeing features at Kennedy Space Center, the cleared area around the vehicle assembly building. Conrad also brought up the fact that the Skylab windows were as clean as any he'd ever seen in any spacecraft. And looking up toward the telescope mount truss, he mentioned that the - that Don Lend's experiment was in super shape. This refers to Astronaut Don Lend, who is also a co-investigator on experiment number S230, magnetospheric particle composition experiment. His co-investigator is Dr. Johannes Guiss of the University of Berne in Switzerland. The detector is mounted on the ATM strut, with a cuff over it. And the detectors will be brought in during the EVA in which the ATM film canisters are retrieved. Crew presently is having a lunch meal, and they should be well into preparations for deploying the parasol during the next stateside pass, which is still another hour and 15 minutes away, when we come across Goldstone. Next station to acquire will be Carnarvon in 36 minutes, followed by Guam, with a slight gap between the two stations. At 20:36 Greenwich mean time, 3:36 central time, this is Skylab Control.

END OF TAPE

SL-II MC-97/2
Time: 3:23 p.m. CDT, 1:07:23 GET
5/26/73

SC Okay, Houston, I've got them in hand, and the teleprinter does a very nice job, except it's awfully faint.
SC We don't know whether it's this particular paper or whether that's the way it's going to be the rest of the time. (garble) difficult to read.
CC You can read it all, can't you, Pete?
SC I think so, Hank.
SC Okay, we're just short of LOS. And our next contact is going to be Carnarvon at 13, which is a long time from now, and we'll be dumping the recorder there again.
SC Okay, hopefully we'll have had lunch by then, and we'll work these changes while we're doing lunch.
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END OF TAPE

SL-II MC98/1
Time: 16:12 p.m. CDT, 1:08:12 GET
5/26/73

PAO This is Skylab Control; 21 hours 12 minutes Greenwich mean time. We have acquisition at Carnarvon. This Carnarvon pass lasts almost 10 minutes. Flight Director Neil Hutchinson has been going over the procedures for deploying the parasol device to understand in his mind, how the thing works, how the rods are attached one at a time and pushed out with retainer knobs attached.

CC Carnarvon for 7 minutes and we'll be dumping the recorder.

SC Roger. Okay. The CDR's headed into the workshop right now with duals ahead trying to (garble).

CC Roger; copy. And the next guy through the airlock there we'd like to get him to turn OWS heat exchange fans number one off. We don't need that anymore and we'll conserve a little power.

CC Skylab, Houston. Did you have any questions on the mods we sent up by teleprinter?

SC I just finished incorporating them in the cue card, Hank. We haven't really had the time to go over and review them. We'll do that later.

CC Okay. And ah - For the SPT there, he's to set up the TV. We'd like to give you some words on order of priority. The number 1 priority is, that he be able to observe the deployment. If the TV camera's going to interfere with his observation, then eyeballs come first.

SC Roger. This morning is the first time I had an inkling you guys wanted to see this and I just haven't thought about it, yet.

CC Okay. It's called out there on our page A-4 in the time line.

SC Yeah, which I saw this morning for the first time.

SC Say, Hank. There's one whale of a lot of stuff in that command module. And we'll see if we can get it out.

CC Okay.

SC Because in order to neaten it up to leave room for three guys, among other things, we had to dismantle the TV and restow it. In order to get it out, we are going to have to move a whole lot of other stuff.

SC We'll try to do it, but we're not promising anything, is what I'm saying, I guess.

CC Okay. That's good, but before you try it, take a look out the window and see if you think you're still going to be able to see if the TV camera is installed.

SC Ahhh yeah, well, oh I see your side yeah.

CC Well, the number 1 priority is being able to see it with your eyballs, and if the camera interferes we don't want the camera.

SL-II MC98/2
Time: 16:12 p.m. CDT, 1:08:12 GET
5/26/73

SC You cannot see out that window with the TV camera in there.
SC I tried that yesterday and I coudn't see and I didn't get any TV by trying to do both.
CC Okay; copy.
CC I guess, if it's feasible, what we'd like to do is have you eyeball the deployment and after it's deployed give us a TV picture of it.
SC Understand you.
CC Skylab, Houston. We're about 30 seconds from LOS. We'll be coming up on Guam at 27.
SC Roger, Houston.
PAO This is Skylab Control; 21:22 Greenwich mean time, in a gap now between Carnarvon Tracking Station and the Guam Island Tracking Station in the western Pacific. Some discussion over Carnarvon on deployment of the parasol through the solar scientific airlock. It was mentioned that TV would be desirable through the command module window as the parasol is extended up above the workshop wall. However, the eyeball observation was prime. TV would be nice, but not to let it interfere with Kerwin's visual observation of the parasol. However, it was mentioned that after it was successfully deployed, it would be highly desirable to have a television picture. The parasol that is being carried was the brain-child of Jack Kinzler, who is Chief of the Technical Services Division at Johnson Space Center. The hardware for the parasol, all of the telescoping tubing up, and all of the deployment mechanism adapted to the TO-27 canister were all built in the Tex Services Machine Shop. The parasol canopy was also constructed here at Johnson Space Center. During all of the testing and modification period, the test teams worked around the clock. Most of the testing was headed up by Don Arabian. The poles work, rather like collapsable tent poles, in that they're aluminum poles or tubing of descending diameters to telescope inside each other with snap tabs at the end that prevent them from pulling out. springs around the top hub will force the four diagonal poles outward after they clear the end of the canister and the wall of the workshop and bring the canopy out flat after some amount of flapping around until it damps out. Parasol canopy was packed late Thursday in the HIGH-BAY AREA of the Space Environment Test Division, building 32. And was packed with all the care of a parachutte. In fact, parachutte riggers did most of the actual packing and folding down to a package small enough to fit into the 8 by 8 inch square canister, which is some 53 inches long inside. Teflon sleeves, then sheets of Teflon on the 4 sides of the canister - -

END OF TAPE

SL-II MC99/1
Time: 4:25 p.m. CDT, 1:08:25 GET
5/26/73

PAO - which is some 53 inches long inside. Teflon sleeves, thin sheets of Teflon on the four sides of the canister, will aid in allowing the canopy to slide outward. The Teflon will act as a lubricant. We're less than a minute away now from Guam station. We'll leave the circuit up for the Guam pass. And we're 25 minutes out of Goldstone. This is Skylab Control standing by.

CC Skylab, Houston through Guam for 8 minutes.

SC Roger, Houston. This is the SPT. (garble) The other two guys are in the workshop getting ready for parasol deployment.

CC Roger; copy. And, for your information, we'll be switching the mission timer from B to A according to the Flight Plan.

CC Skylab for the SPT.

SC Go ahead.

CC Okay. Are you up in the STS or ATM panel now?

SC I'm moving now, but I can get there (GARBLE.)

CC You're picking up a lot of feedback through the SIAs, Joe. I'm having trouble reading you - loud squeal.

SC I know. I had my hands full of (garble). I had to use the wrong VOX. Go ahead.

CC Oh, okay. Sometime when you get a break there, we'd like for you to take a look at the Calfax fasteners on the teleprinter print cartridge and see if they are tied. I don't know whether that's - I can't imagine them not being tied, but it's one thing we couldn't check.

SC Standby. They're all tied, Hank.

CC Okay, thank you.

CC Skylab, Houston. For info, we're initializing a shutdown.

SC Roger.

CC Skylab, Houston. The DAS is yours.

CC Skylab, Houston. For information, we're commanding a (garble).

SC Roger.

CC Skylab, Houston. We're about 15 seconds from LOS. Goldstone at 51.

PAO This is Skylab Control, 21:35 Greenwich mean time. And we have gone out of range over the hill from the Guam Island tracking station; 15 minutes now until Goldstone in California. Crew at this time making preparations for attaching the canister containing the Skylab parasol to

the solar airlock (scientific airlock), a rather tedious job of extending the parasol, attaching one section of rod at a time to the central core rod, the main shaft of the parasol. This main shaft is actually part of the hardware for the T027 experiment, and the parasol four diagonal ribs and central hub were simply attached to the existing experiment hardware. The outer ends of the telescoping ribs are attached by screws to the inner plate, end plate, of the canister, and as the canopy is fully extended by successive attachments of rods, much like going down in a hole with drill stem in an oil well, the four screws will be released at the end plate, allowing the ends of the rods to pass on out through the canister past the wall of the workshop and rotate 90 degrees into the four corners, taking the folded parasol canopy with it. At 21:37, up again at Goldstone in 13 minutes, this is Skylab Control.

END OF TAPE

SL-II MC-100/1
Time: 16:48 p.m. CDT, 1:08:48 GET
5/26/73

PAO This is Skylab Control. 21:48 Greenwich mean time, 4:48 Central daylight time. Acquisition at Goldstone in 2 minutes 25 seconds. Crew still at this time making preparations for deploying the Skylab parasol. They first have to move a water tank from the floor of the workshop up to it's permanent resting place lashed down up in the - near the dome. During this stateside pass the final discussion of the changes in the deployment procedure for the parasol will be carried out. Just one more stateside pass after this one. And then we are pretty much on the back side of the orbit which takes us through the Hawaii station and Vanguard for several REVs before we start coming back on the main part of the network. Less than a minute now to Goldstone. We'll standby for the initial call from the spacecraft communicator Hank Hartsfield. Standing by at 21:50 Greenwich time, this is Skylab Control.

CC Skylab, Houston to Goldstone and stateside for 15 minutes.

SC Roger Houston. We have had what we consider to be 3 false alarms from BUS 1 fire detector in the center sleep compartment. And in all(garble) instances, they were transient, lasting less than two seconds. However, the first time it does give you a start. And for right now we got Bus 1 powered off on that detector.

CC Okay. Would you say again the location?

SC The detector in the center sleep compartment. Sleep compartment number 2.

SC Roger, copy.

SC Work is progressing. We've relocated the (garble) holding tank, and that went like a piece of cake, just like two thousand and in one. We've done the tripod move. We got the foil off the SAL. It is in good condition we're in a process of moving the TO27 down now, while Joe hunts for the (garble) bags.

CC Roger, copy.

CC Skylab, Houston. Paul, we're having to manage this momentum and do maneuvers here pretty often as you know and we feel that we can't afford to have a maneuver while you're pushing this thing out. Now you can work all the way up to step 22A, but we'd kind of like to a feel for, later on in the pass here. We got about 12 more minutes. About when are you going to get to that so we can manage the momentum?

SC Okay, Hank. Paul heard that and tells me that they don't have a field yet for what they are going to be at that - We'll let you know.

SL-II MC-100/2
Time: 16:48 p.m. CDT, 1:08:48 GET
5/26/73

CC Okay, I just wanted to make you aware. I knew you wouldn't know at this point. But as you start working along maybe you can get an idea about when it will be.

SC You bet.

CC Skylab, Houston. We'd like to verify that - that you have read the procedure and don't have any questions about it because we're starting to come up on the time of day when we don't have many station contacts. In fact, after we drop out stateside here, we'll pick you up at Vanguard in about 20 minutes and that's the last pass before Goldstone.

SC Okay, I'll pass that word to the workshop Hank. How many minutes left on this pass?

CC Okay, we got 10 minutes here.

SC Okay.

END OF TAPE

CC Skylab, Houston. For information, we'll be commanding the spectrometer on the CSM; no action required.
SC How do you read, Houston?
CC Roger; I'm reading you loud and clear, Pete.
SC Okay, I got you on the speaker box (garble). I got one of my hot gloves back on again. The speaker box is about 130. We're taking the tape off the box and we're taking our time right now, and if we have any questions on the procedures, we will wait to ask you.
CC Roger; copy.
SC It occurs to me, the question I had was why did you want to reverse the sleeves on the SAL tripod?
CC Say again, please?
SC On the SAL tripod, why did you reverse the speed on it? You know, I just couldn't figure out why (garble).
CC That's the screws that - the way the thing is mounted there for launch, Pete, you know, you turn those around, as part of activation.
CC SPT, Houston.
SC He's down in the workshop.
CC Okay. SPT, just give us a call when you're free for a minute.
SC Can I relay you, Hank?
CC Negative. I just got a little pass we want him to perform here sometime when he's free, and I need to read it to him whenever he's got a chance to listen.
SC Okay.
CC Skylab, Houston. For information, no action required, we're going to do another nominal H-cage in about 2 minutes.
SC Okay.
CC Skylab, Houston. Is one of the guys near the ATM console?
SC No, we're all in the OWS.
CC Okay. We're just trying to verify here. We saw a change of status on the CBRM's. We're managing 5 and 6. Now, we're about a minute from LOS now. We'll be picking you up at Vanguard at 17.
SC Okay.
CC And the reset are the nominal H-cage should be starting now.
SC How many minutes until sunset?
CC Okay, sunset's coming up in 13 minutes.
SC Sure gets hot down here on the stateside pass, and the other thing is when that TACS goes off, it sounds like somebody's beating on the bottom of the lab with a hammer.
CC Roger.
PAO This is Skylab Control at 22:06 Greenwich mean time, 5:06 central daylight. Ten minutes to Vanguard Tracking Station. Apparently we have had loss of signal through Mila, a tracking station near Kennedy Space Center

in Florida. Pete Conrad commented that during this last pass, that moving the water tank from the floor of the workshop up onto the wall, was a "piece of cake". And just a few moments ago, he said that any time the TACS system, or thruster attitude control system fired, it sounds like someone pounding on the workshop with a hammer. We'll bring the line up again at Vanguard in about 9 minutes. At 22:07 Greenwich mean time, this is Skylab Control.

END OF TAPE