SL-1

SKYLAB MISSION COMMENTARY 5/14/73 CST 12:47 GET 17:00 MC10/1

PAO Mark. Standing by now for confirmation of ATM deployment. We're 17 minutes 35 seconds. The deployment motors of the Apollo telescope mount now running. This deployment sequence in toto takes about 4 minutes. Deployment being activated by two Apollo telescope mount motors which are presently running. We're 18 minutes 20 seconds now ground elapsed time. The booster now being maneuvered to a solar inertial attitude. We're at 19 minutes 10 seconds ground elapsed time. Mark 20 minutes ground elapsed time. We should be less than a minute away now from deployment. Mark 20 minutes 12 seconds ground elapsed time. Our data displays, Mission Control, now show the ATM has deployed and locked. The Apollo telescope mount has been deployed and securely latched. The 24,500 pound ATM reaching out now at a 90½degree angle from the orbital workshop. We're at 20 minutes 35 seconds. We've had confirmation. We have data here in Mission Control that the ATM has deployed and latched. Mark 20 minutes 50 seconds. The next event to occur will be the deployment of the four wings of the telescope mount solar array system. We're standing by now for that deployment. Mark, we're at 21 minutes 40 seconds ground elapsed time. Preliminary tracking data shows an orbit for the orbital workshop of 237 nautical miles by 236.3 nautical miles near circular. We repeat 237 nautical miles by 236.3 nautical miles. We're at 24 minutes 30 seconds now ground elapsed time. Continuing with the solar inertial maneuver, reports booster. Twenty-five minutes ground elapsed time. We've got 1 minute until loss of signal with Madrid. Mark, we're 25 minutes 45 seconds. The deployment motors have been turned on. The solar array system wings on the Apollo telescope mount are now extended. Standing by, continuing to monitor.

END OF TAPE

SKYLAB MISSION COMMENTARY 5/14/73 CST 12:57 GET 27:00 MC11/1

PAO Mark we're at 26 minutes 30 seconds under acquisition now by an ARIA aircraft following loss of signal with Madrid. Okay, all four Apollo telescope mount solar array wings are out and securely locked. Mark we're 27 minutes 20 seconds now ground elapsed time. The Apollo telescope mount has been deployed and securely latched. The solar array system for the telescope mount, the four wings, has been deployed and securely locked. The next thing we should be seeing in Mission Control - We'll be receiving telemetry data from the telescope mount and this should occur within the next several minutes. We are presently receiving data through an ARIA aircraft beyond Madrid tracking station. Mark 28 minutes 10 seconds. We now show an orbit of 237.1 nautical miles by 236.6 nautical miles for the orbital workshop. Mark 29 minutes 20 seconds. We've had some dropout in data from the ARIA aircraft, presently showing static displays in Mission Control. The procedures officer here working to get locked up on the data at this time. We're at 29 minutes 40 seconds ground elapsed time. We repeat that the Apollo telescope mount has been deployed. The solar array system from the telescope mount also deployed at this time. The next deployment to occur will be the solar array system for the workshop. Mark 32 minutes ground elapsed time. We presently show an orbit of 237.1 nautical miles by 236.8 nautical miles for the orbital workshop now in its first revolution. Mark 34 minutes 20 seconds ground elapsed time. Flight Director Don Puddy speaking to his flight control team in mission control saying everything looks good up to this point. We're standing by now for definite indication through ARIA aircraft of receipt of telemetry data from the Apollo telescope mount. We're now at 34 minutes 40 seconds ground elapsed time. Continuing to monitor. This is Skylab Control, Houston.

END OF TAPE

SKYLAB MISSION COMMENTARY 5/14/73 CST 13:07 GET 36:00 MC-12/1

PAO This is Skylab Control, Houston, at 36 minutes ground elapsed time, still standing by for a definite indication of receipt of telemetry from the Apollo telescope mount. Following this we will see the deployment of the meteoroid shields and the deployment of the solar array system wings aboard the workshop. Thus far, we've seen the successful activation of the Apollo telescope mount as well as the solar array system for that mount. We're at 36 minutes 35 seconds, continuing to monitor. This is Skylab Control, Houston.

PAO This is Skylab Control, Houston; 41 minutes ground elapsed time. We presently show an orbit of 236.2 nautical miles by 237 nautical miles. We are some 12 minutes 26 seconds away now from acquisition Carnarvon at which time we should be able to verify telemetry being received from the Apollo telescope mount. This is Skylab Control, Houston, at 41 minutes 35 seconds ground elapsed time.

END OF TAPE

SKYLAB MISSION COMMENTARY 5/14/73 CST 13:24 GET 53:00 MC13/1

PAO Skylab Control, Houston, at 53 minutes ground elapsed time. We're less than a minute away now from acquisition by Carnarvon tracking. We'll keep the line open. Stand by, continue to monitor. A quick status check in Mission Control by a Flight Director, Don Puddy, led him to say everything looks "super good" so far. We presently show an orbit based on increased tracking data of 236.5 nautical miles by 236.2 nautical miles. Standing by continuing to monitor. This is Skylab Control, Houston. We are now acquiring data through Carnarvon. Booster reports the vehicle is now in solar inertial attitude. We are now receiving telemetry data from the Apollo telescope mount. The Environmental Officer reports the data receiving looks good. The habitation area vent valves have been closed as scheduled. We're now at 55 minutes ground elapsed time. This is Skylab Control, Houston.

END OF TAPE

SKYLAB MISSION COMMENTARY 5/14/73 CST 13:29 GET 58:00 MC14/1

PAO Skylab Control, Houston, at 59 minutes ground elapsed time. We have no confirmation yet on the deployment of the airlock solar array system. We'll stand by and continue to monitor at 59 minutes ground elapsed time. This is Skylab Control, Houston. Skylab Control, Houston, at 1 hour 4 minutes ground elapsed time. We're less than a minute away now from acquisition by Honeysuckle. This will be a very short acquisition time, some 1 minute 11 seconds. Following Honeysuckle, the next station to receive data will be Texas, and that would be 30 minutes 30 seconds from this time. We're now at 1 hour 4 minutes ground elapsed time. Continuing to monitor, this is Skylab Control, Houston. We have acquisition through Honeysuckle at this time. We're 1 hour 5 minutes ground elapsed time. Skylab Control, Houston, at 1 hour 7 minutes ground elapsed time we've passed out of station contact with Honeysuckle at this time. The next station to acquire will be Texas at 27 minutes 42 seconds from this time. We've still received, through data, no definite indication on the airlock solar array system deployment; however, this pass, as well as Carnarvon, was through darkness and the Sun will be the first definite way of giving an indication as to whether or not the airlock module solar array system has been deployed. We would expect to take a good hard look at this through our first stateside pass. We're now at 1 hour 7 minutes ground elapsed time. This is Skylab Control, Houston.

END OF TAPE

SKYLAB MISSION COMMENTARY 5/14/73 14:05 CST 1:34 GET MC15/1

PAO This is Skylab Control, Houston, at 1 hour 34 minutes ground elapsed time. Less than a minute away now from acquisition by Texas. We show an orbit of 237.1 nautical miles by 236.2 nautical miles. To quickly recount what we've seen during this first revolution of the workshop orbit. The payload shroud jettisoned on schedule. The ATM Apollo telescope mount has deployed. The solar array system for the ATM has also deployed. We have no indication yet on the deployment of the two solar array wings attached to the workshop. We will look at this - at display data for about 10 minutes under sunlight on this stateside pass to endeavor to confirm or not confirm that deployment. Given a nonconfirmation, of course, backup commanding could be necessary from the Control Center. We're at 1 hour 35 minutes ground elapsed time. This is Skylab Control, Houston.

PAO Skylab Control, Houston, 1 hour 38 minutes ground elapsed time. Flight Director, Don Puddy, talking to the Booster System Engineer here in Mission Control. We have no indication of deployment of the workshop solar array system wings. No indication of deployment of those wings. The Booster now going through some backup command procedures. We've also had an indication of partial deployment of the meteoroid shield. We're at 1 hour 39 minutes ground elapsed time, continuing to monitor. This is Skylab Control, Houston.

PAO Skylab Control, Houston. Now 1 hour 40 minutes ground elapsed time. The orbital workshop now on it's first stateside pass since launch and insertion into orbit. We are presently looking at the orbital workshop solar array system. No indication at this time of deployment. The Booster Systems Engineer here in Mission Control going through backup procedures to issue a command for deployment. Standing by, continuing to monitor. This is Skylab Control, Houston.

PAO Skylab Control, Houston, now 1 hour 46 minutes ground elapsed time. Continuing to monitor on this first stateside pass, the orbital workshop. Again, we repeat the orbital workshop solar array system wings have not deployed. Command procedures are being followed presently on the ground by the Booster Systems Engineer. Standing by, continuing to monitor. This is Skylab Control, Houston.

END OF TAPE

SKYLAB MISSION COMMENTARY 5/14/73 CST 14:20 GET 1:48 MC16/1

PAO Skylab Control, Houston, now 1 hour 53 minutes ground elapsed time. Receiving good data now through Newfoundland. Booster at this time issuing commands to the workshop. To repeat what we said earlier, the orbital workshop solar array system wings have not yet deployed. Standing by, continuing to monitor. This is Skylab Control, Houston. Skylab Control, Houston, 1 hour 57 minutes ground elapsed time. We now have acquisition with Madrid. Standing by, continuing to monitor. This is Skylab Control, Houston.

END OF TAPE

SKYLAB MISSION COMMENTARY 5/14/73 CST 14:35 GET 2:03 MC17/1

PAO Skylab Control, Houston, at 2 hours 7 minutes ground elapsed time. We've passed out of acquisition with Madrid tracking. The commanding by the booster systems engineer was verified. The commands did get in; however, we still have no indication of deployment of the orbital workshop solar array system wings. It is known, of course, that the commands did get in. At the present time, however, with the Apollo telescope mount solar array system deployed successfully, we do have a power system to support the vehicle. We're now at 2 hours 8 minutes ground elapsed time and this is Skylab Control, Houston.

END OF TAPE

SKYLAB MISSION COMMENTARY 5/14/73 CST 15:12 GET 2:41 MC18/1

PAO This is Skylab Control. Two hours 41 minutes ground elapsed time in the mission of Skylab 1. Skylab space station now in orbit, coming up on the Honeysuckle, Australia, tracking station. Still some doubt in the minds of Flight Controllers here in Mission Control as to whether the main solar panels on the workshop have indeed deployed. They have had no confirmation on the ground from telemetry that this is the case; the solar panels on the telescope mount have deployed normally. Also, the micrometeoroid shield around the workshop has partially deployed. The large wings of three sections of solar panels on each wing, one on each side of the workshop, generate anywhere from 51 to 125 volts depending on the Sun angle at the time. This power goes through chargers which in turn keeps storage batteries in the workshop built up to supply power throughout the mission, half of each orbit approximately is in darkness when no power can be generated by the solar panels. The two solar panel wings are deployed out to the side of the workshop, and each panel on the wings operates similar to a scissors action. It's spring loaded to extend the panels. We should be getting data now through Honeysuckle. We'll stand by for comments to the Flight Director from the Flight Controllers who are concerned with the workshop electrical power system, and relay this information as it - No change reported in the solar panel wing status.

END OF TAPE

SKYLAB MISSION COMMENTARY 5/14/73 15:27 CST 2:56 GET MC19/1

PAO This is Skylab Control. Three minutes 2 hour - Three hours 2 minutes ground elapsed time, and the mission of Skylab 1. Skylab space station now being tracked by the Hawaii tracking station. Waiting for the systems engineers to report the space station status back to the Flight Director as the data comes in.

PAO It appears that a plan will be formulated later on in the day and this evening by which the existing available power coming into the Skylab workshop will be conserved to the greatest extent, on the assumption that we may not be able to get the main solar panels deployed. we'll continue to standby the remainder of the Hawaii pass, which is a fairly low elevation angle. Coming up in a few moments to Goldstone, in approximately 5-1/2 minutes for a fairly lengthy stateside pass over the tracking stations in the contintental United States. At 3 hours 5 minutes ground elapsed time, this is Skylab Control.

END OF TAPE

SKYLAB MISSION COMMENTARY 5/14/73 15:41 CST 03:10 GET MC20/1

PAO This is Skylab Control, 3 hours 10 minutes, ground elapsed time. Acquisition of signal over Goldstone Tracking Station for the second stateside pass after launch. We'll stand by here as the data comes in for any further developments in the situation in which the main solar panels on the workshop apparently have not deployed.

END OF TAPE

SKYLAB MISSION COMMENTARY 4/14/73 15:56 CST 3:24 GET MC-21/1

PAO This is Skylab Control. Three hours 31 minutes, ground elapsed time. Skylab space station presently crossing over the combined coverage of Canary Island tracking station and Madrid, Spain, tracking station. Flight Controllers, here, continuing to assess the possible effects on the mission on the apparent nondeployment of the large solar panels on the workshop. As the afternoon and evening wears on, there likely will be some considerable amount of sorting out as to what course should be taken to get the most out of the mission. As these facts develop, as the plans are worked out, they will be relayed on over the circuit at 3 hours 32 minutes, ground elapsed time, with some 5 minutes and a half remaining over Madrid. And, standing by; this is Skylab Control.

END OF TAPE

SKYLAB MISSION COMMENTARY 5/14/73 15:00 CST 16:10 GET 3:39 MC22/1

PAO This is Skylab Control, 3 hours 42 minutes, ground elapsed time. Skylab space station now over the hill from the Canary Island tracking station. Thirty-four minutes away from being acquired again by the Honeysuckle, Australia, tracking station. No further resolution at this time on the solar pnel deployment problem, which likely will affect the course of the mission. As the planning develops, on how to best manage the mission for the maximum return, we'll bring these details to you on this circuit. And, at 3 hours 40 minutes, ground elapsed time, on the mission of Skylab 1, this is Skylab Control.

END OF TAPE

SKYLAB MISSION COMMENTARY 5/14/73 16:42 CST 4:11 GET MC-23/1

PAO This is Skylab Control. Four hours 14 minutes ground elapsed time - the Skylab space station mission. Here in the Control Center, the problems associated with the failure of the Saturn workshop solar panels to deploy are being discussed, at some length, by management and flight controllers. Preliminary telemetry indications are that there could have been a malfunction with one solar array beam fairing and the meteroid shield, which could have led to such anomalies. These malfunctions are indicated to have occurred 1 minute and 3 seconds after lift-off, based on postlaunch examination of telemetry.

PAO The planned 28-day mission is not possible without deployment of the workshop main solar panels. Project officials are considering an alternate mission using the command service module power system to augment the limited power supply provided by the Apollo telescope mount solar panels aboard the workshop, through a system of managing the two power sources for the optimum usage. An announcement will be made as soon as these decisions have been reached. The decision on such an alternate mission is expected to be had by about 9:00 p.m. eastern daylight time, at which time a news conference will be held at the Cape. And it is expected that Skylab Program Director, Bill Schnieder, will take part. We're starting to get data, now, through the Honeysuckle, Australia tracking station. This is a rather low elevation angle pass of little over 4 degrees, or approximately - I stand corrected, 86 degrees, the max elevation on this particular pass, almost directly overhead, at Honeysuckle. Almost 9 minutes remaining in this pass across Honeysuckle station. We'll stand by on Skylab Control circuit for the Honeysuckle, followed by Hawaii, and the next stateside pass. At 4 hours 18 minutes ground elapsed time, this is Skylab Control.

END OF TAPE

SKYLAB MISSION COMMENTARY 5/14/73 15:00 CST 16:57 GET 4:26 MC24/1

PAO This is Skylab Control at 4 hours 28 minutes ground elapsed time, as the Skylab workshop heads across the south-central Pacific toward the Hawaii tracking station - coming up in about 8 minutes over that station. To reiterate what was stated before about the current situation in the Skylab-1 mission, preliminary telemetry playback indications are there could have been a malfunction with one solar array beam fairing. That is the cover that is - that houses the solar array beam before it swings outward from the workshop itself. And the meteroid shield, which could have led to the subsequent anomalies that have been witnessed this afternoon. And, namely, the failure of the large solar panels to properly deploy. The malfunction was measured to have taken place 1 minute and 3 seconds after lift-off, based on examination of the telemetry records and tapes played back post-launch. Now, the current posture in the mission is as follows: the planned 28-day mission is not possible without full deployment of the solar panels on the workshop. At the same time, all the other workshop systems and deployment sequences are fully nominal. Project officials are considering an alternate mission, using the power supply aboard the command service module to augment, or supply additional power to the workshop, through managing of the various electrical buses aboard. The ATM solar panels are deployed, and are generating power. This power supply, tied with that brought up by the command module when it docks with the workshop, would supply power for a reduced mission. However, an announcement will be made as soon as a decision on how the mission will be managed. This decision on alternate mission is expected by about 9 o'clock Eastern Daylight Time. Our news conference at Kennedy Space Center newsroom, with Skylab Program Director, Bill Schneider, will take place at this time. Five minutes out from Hawaii, and at 4 hours 32 minutes, ground elapsed time. This is Skylab Control.

END OF TAPE

SKYLAB MISSION COMMENTARY 5/14/73 17:12 CST 04:41 GET MC25/1

PAO This is Skylab Control, 4 Hours 48 minutes, ground elapsed time. Skylab space station now being tracked by the Goldstone tracking station in the Mohave Desert, California. No apparent change in the mission status at this time. The large solar panels on the workshop still undeployed. And among the considerations to be looked at later in the evening by the Mission Director and other members of management on the Skylab team, will be whether or not to launch Skylab 2 on schedule tommorow, or to delay the manned mission until some later time, after a new flight plan for a shortened mission can be formulated and designed. At 4 hours 49 minutes, this is Skylab Control.

END OF TAPE

SKYLAB MISSION COMMENTARY 5/14/73 17:45 CST 05:14 GET MC26/1

PAO This is Skylab Control, 5 hours 14 minutes, ground elapsed time, in the mission of the Skylab space station, presently over the Canary Island tracking station. Some 3 minutes remaining until loss of signal, crossing over into Ascension Island tracking station coverage. At 5 hours and 9 minutes, ground elapsed time, it was reported that the Skylab workshop has settled down into solar inertial attitude, that is, that the Apollo telescope mount portion points at the Sun continuosly. To recap again the current posture in this mission, it appears that a malfuntion in one of the fairings covering the solar arrays on Saturn workshop may have malfunctioned at about a minute and 3 seconds after lift-off. Playback of the telemetry data has shown that there was an apparent malfunction of this fairing, also, the meteoroid shield malfunctioned at the same time. As it stands now, the planned 28-day mission for Skylab 2, still scheduled for launch tomorrow, at this time, would not be possible for the full 28 days without deployment of the workshop solar panels. Skylab program officials are looking at all of the alternate missions that would be feasible and possible to conduct. The main guiding factor would be the amount of electrical power available from the fully deployed, and presently generating Apollo telescope mount solar panels, put together with the power available from the command service module, when it docks with the cluster. The decision on whether to continue with a somewhat abbreviated mission tomorrow on schedule, or whether a delay is necessary to regroup, will be made later in the evening. Decisions on alternate missions, on an abbreviated mission, is expected around 9:00 eastern daylight time. A news conference with Skylab Program Manager, Bill Schneider, is expected to take place at 9:00 o'clock eastern time at the Kennedy Space Center newsroom. That is currently the status in the mission of Skylab 1, the Skylab space station. And at 5 hours 18 minutes, ground elapsed time, this is Skylab Control.

END OF TAPE