ASTP (USA) MC393/1
Time: 20:13 CDT, 108:58 GET
7/19/75

CC-H Apollo, Houston. Through the satellite, how do you read?
ACDR Loud and clear.
CC-H Roger Tom. How are you doing?
ACDR Slow. Stand by, we'll talk to you in a minute.
CC-H Okay Tom.
ACDR Houston, Apollo.
ACDR Houston, Apollo.
CC-H Go ahead, Tom.
ACDR Okay. Vance got it. And you ready to copy?
CC-H Roger, Tom. We wan-we watched you do them so we have the data, thanks very much.
ACDR Okay.
CC-H And Apollo, Houston. We got behind on our uplinks because of all this. And now that you are in POO, we would like ACCEPT and we'll giv-we'll finish them up.
ACDR Stand by. Vance wants to do a check here.
CC-H Okay, fine.
CC-H And Tom. Houston. When-when one of you guys get, get around to it, we would like somebody to, or like Deke to do the furnace ops, that's listed up there at a little after 108 hours.
ACDR Okay. Yea, this while thing, they've really jammed this timeline on us. Everything is running behind time. Either one of the three of us will get it, okay?
CC-H Understand, Tom.
ACDR Okay. You got POO and Accept and the star checked.
CC-H Okay, real fine. Thanks much.
DMP Dick, are you reading?
CC-H Loud and clear, Deke.
DMP Okay. I finished the demoes and I was supposed to give you some data on the foaming (garble) appearance and color of liquid crystals. You ready to log it on page 171 in the experiments checklist?
CC-H Stand by just a second, please.
DMP Okay.
CC-H Okay, Deke. Go ahead.
DMP Okay. Number 1 is a dark blue.
CC-H Okay.
DMP Two is greener.
CC-H Okay.
DMP It's is a green green. Number three is a dard green.
CC-H Okay.
DMP And number four is a kind of a dark redish brown.
CC-H Okay. Real quickly, one is dark blue, two is green, three is dark green, four is a dard reddish brown.
DMP That's affirmed.
CC-H Thanks alot, Deke.

ASTP (USA) MC393/2
Time: 20:13 CDT, 108:58 GET
7/19/75

DMP Right. Our old bathroom up there is also all blue-red at this point.

CC-H Deke, Houston. You broke up on that last transmission. If there was anything important say again, please.

DMP It really wasn't, I was just commenting that we had a lot of blue and red dyes associated with those experiments that are - the bathroom up there has been repainted with them.

CC-H I see, okay. Copy.

CC-H Apollo, Houston. Two things, one on configuration on panel 400, the VTR, we would like the VTR power to ON and telemetry power to ON so we can do the dumps tonight. Also, if you guys would like to activate the - to turn on the secondary cool and loop pump and activate the-the evaporator here for a few minutes before sleep time, you could get a few minutes worth of extra cooling. And I'll call you at our last pass tonight, which is Guam, and get you to turn it off.

END OF TAPE

ASTP (USA) MC394/1
Time: 20:28 CDT, 109:08 GET
7/19/75

CC-H - - here for a few minutes before sleep time, you can get a few minutes worth of extra cooling. And I'll call you at our last pass tonight, which is Guam, and get you to turn it off.

CMP Houston, Apollo.

CC-H Go ahead, Vance.

CMP Okay. We've got the water boiler running and advise that it looked like the stars were only a couple of degrees away from where they should be. But, after about 10 minutes of dark adaption I could see the first two that I got, and the third one that I checked on, I could only see in the sextant. So that's just to give you an idea of the problem on how we have to depend on auto optics with this particular light lost.

CC-H Roger, Vance. Copy. Just at about the time - and incidently, Vance, you were just about coming into daylight at about the time you were working on that last star, so I'm sure it was even - even harder. And we're sorry for all the confusion and the crowding on this, but in the end it worked out real fine. Thank you very much.

CMP Okay. Glad if it all worked out.

ACDR Okay, Dick. The old (garble) has been activated and we'll go to work on your furnace.

CC-H Okay. Real fine.

CC-H Apollo, Houston. One other comment. MCC-Moscow overheard our conversation about the VHF in the morning. It turns out that the first couple of hours after you're up, they're going to be very busy and they requested that we not turn the VHF FM on until 119 hours. I've made a note in my checklist down here, so that you don't have to, and at that time I'll give you a call, and after that time you can turn it on and leave it on the rest of the time.

CMP Okay. Very good. We'll have it off and just wait until you let us know.

CC-H Okay.

CC-H Apollo, Houston. We got about 5 minutes left in this ATS pass. EECOM has been noticing for the last several minutes that the 02 flow is high, and we were not sure what the cause of it was and wanted to check.

ACDR Okay. We're just using our waste management system, I think, Dick.

CC-H Okay. I understand.

CMP In - in conjunction with the purge.

CC-H Apollo, Houston. A while ago I read up a change to Vance to delete the waste stowage vent purge this evening, So we'd like to - I thought I'd got that up - sorry about that - and we'd like to get the purge terminated.

CMP Sorry. We were all off the line. Please repeat.

CC-H Oh, Okay, Vance. We were a little confused about your last comment about the purge, because that was what I'd read up to you, oh, an hour or so ago to delete in the flight plan. If the purge is going on, we'd like to get it terminated.

ASTP (USA) MC394/2
Time: 20:28 CDT, 109:08 GET
7/19/75

CMP Okay. Stand by 1.
CC-H Okay. And - -
CMP All right. Okay. All right. Agreed.
CC-H Roger. Okay. In the presleepchecklist, there's a couple of things. Any time you can give us a VERB 74, we'd appreciate it. Also, we're - Also, we need a readout on the battery volts. And also, tonight the G&C would like a readout on the RCS quad percentage quantities.
CMP Okay. I can give you all those things right now. If you're ready for the VERB 74, I'll send it.
CC-H That's affirm, Vance. We're ready.
CMP Okay. It's in. Okay. Other things. BAT C, 37 volts.
CC-H Okay.
CMP BAT A, 32; BAT C, 37; Pyro BAT A, 36.9; Pyro BAT B, 37 volts. Now for the quads.
CC-H Roger Vance. And we're a couple of minutes from ATS LOS, so we'll see you at Guam, so keep on reading, please.
CMP Roger. Okay. Quad A, 76; Quad B, 92-1/2;
CC-H Okay.
CMP Quad C, 82-1/2.
CC-H Okay.
CMP Quad D, 89.
CC-H Okay, and also we need the PSM, please.
CMP Roger. 14-1/2.
CC-H Okay. Fine. I got them all. And Guam comes up in 5 minutes. I'll call you there.
CMP Okay, Dick.
PAO Apollo Control. Ground elapsed time 109 hours 17 minutes. Loss of signal through the ATS-6 satellite. Next acquisition will be through the Guam tracking station in 3 minutes and 55 seconds. On this pass, again Tom Stafford commenting on the busy flight plan the crew has been faced with tonight. He said it's really jammed the timeline for them. Slayton reporting the results of one of the in-flight science demonstrations, 104 in the flight plan for the ASTP crew. The one he had reference to was the chemical foams in zero-gravity. This is to demonstrate the rate of chemical reactions in foam in a zero-gravity environment.

END OF TAPE

ASTP (USA) MC395/1
Time: 20:38 CDT, 109:18 GET
7/19/75

PAO - -the ones he had reference to was the chemical foams in zero gravity. This is to demontrate the rate of chemical reactions in foam and a zero gravity environment. Next accqusition in 3 minutes. We'll hold the line up for the Guam pass.

CC-H Apollo, Houston. Through Guam for about 6 minutes.

CMP Roger. Loud and clear.

CC-H Roger. Vance, this the la - I have a feeling that you guys are running late and - and - may be up for a little, but at any rate this is our last scheduled pass for this evening and I've got several items that I wanted to pass up to you just - that I need to get up and if I can get them up here we won't have to use another pass.

CMP Okay, fine. Go right ahead. I think we'll be - we're getting in pretty good shape here.

CC-H Okay, one thing, somebody might be getting out the updates book because I've got a change to - a couple of TIG times in there for the block data and you can let me know when you got that in hand. We want to load the DAP registar 1 for the flight plan at 6 plus 4-1's. 61111. After that we want to do a PRO through the VERB 49 to trim the sleep attitude and make sure plus the sleep - presleep checklist. That the optics are zero and the power OFF.

CMP Roger, Dick. We've got the DAP moded. What would you like in VERB 47 - or NOUN 47?

CC-H Excuse me, you may have misunderstand me. We just wanted you to trim up the sleep attitude by going through VERB - doing a VERB 49 trim maneuver.

CMP Roger, I understand. NOUN 47 is inaccurate. Sometime we'll have to get an update from you. But that can wait.

CC-H Okay, good. We'll - I will.

CMP Okay.

CC-H One other thing I forgot to tell you while ago. The computer is yours and you can go to BLOCK.

CMP Okay. BLOCK.

CC-H Okay, another thing is here at Guam, we want to be sure and get the secondary coolant loop turned down so we want to deactivate the evaporator and turn the pump off.

CMP Okay, that's in work.

CC-H Okay. The - you have - we've loaded up you a new liftoff time so we'd like you to sink the mission timer.

CMP Okay. We'll sink that with NOUN 65.

CC-H Okay and stand by just a second.

CC-H Apollo, Houston. We'd like you to keep the secondary coolant loop - coolant pump on until you've deactivated the evaporator and then the pump off.

CMP Okay.

CMP We've been bit a few times in leaving that on too long so I guess we were getting spring loaded.

ASTP (USA) MC395/2
Time: 20:18 CDT, 109:18 GET
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CC-H Roger. I don't know, I'm assuming you've - we can't tell for sure by our data so we want to make sure that we get the purge terminated also. We can't tell.

CMP It's terminated already.

CC-H Okay, real fine and tomorrow morning's wakeup time is the nominal one. It's at Vanguard at 117 hours and 30 minutes and I'll be calling you there.

CMP Okay, and just repeat the first item that you had. I didn't get that one. I didn't note that one.

CC-H I think - I mentioned that I've got a TIG update in the update book that I need to do two 2 of your block data pads and the second thing, I think I mentioned was the - was changing the DAP which you've done.

CMP Okay, yeah, it was the updates thing that I knew we missed.

CC-H Yeah, if you could - we still got about 2 minutes here if you can find the updates book and I need to update the TIG time on rev 78 and rev 93.

CMP Okay, go ahead, Dick.

CC-H Okay, the rev 78 TIG time should be 129:36:34. And the - -

CMP Go ahead.

CC-H Okay and the rev 93 TIG time should be 153:18:39.

USA Roger, update to 78 TIG time 120:36:34, 93 is 153:18:39.

CC-H Okay. Stand by just a second.

CC-H And Vance, one more thing. The high gain angles for tonight are pitch of minus 48 and a yaw of 258 and we need to set those.

CMP Okay. That's in.

CC-H Okay and we're satisfied with the evaporator now. We'd like the secondary coolant loop pump OFF. Incidentally, we're about 20 seconds from LOS. I'm gonna be standing here - standing by here and on these upcoming next couple stadium passes and also on ATS and I've got some news here that I haven't had time to read to you tonight if you'd like to hear it or talk about anything else, just give me a call when we get locked up for the flight plan.

END OF TAPE

ASTP (USA) MC396/1
Time: 20:48 CDT, 109:28 GET
7/19/75

CC-H - -about anything else just give me a call when we get locked up for the flight plan.

CC-H And if I don't hear from you, have a good night's sleep and we'll see you in the morning.

CMP Okay. Ordinarily we'd like news but we still have some work so maybe we better get at it. See you in the morning, thank you.

CC-H Okay, great. I'll still be here so I'll - I'll be - I'll have it in the morning. See you then.

CMP Okay. Great.

CMP And Deke says to tell you he's gone through (garble).

CC-H I'm sorry, you cut out. If you're still there say again.

PAO Apollo Control. Ground elapsed time 10 - 109 hours, 29 minutes. Over the hill ot Guam. A good night from Dick Truly to the crew of Apollo. Wakeup time in the morning at 117 hours and 30 minutes ground elapsed time. Approximately 4:15 - 4:50 a.m. central daylight time Sunday morning. It's possible that we may hear from the crew again when they come in touch with stateside tracking stations. However, the crew remarked that they still have a little more work to do and they just may just shutdown and finish their work and not talk to the control center again tonight. At ground elapsed time of 109 hours and 30 minutes, this is Apollo Control.

END OF TAPE

ASTP MC397/1
Time: 21:11 CDT, 109:51 GET
7/19/75

PAO Apollo Control, ground elapsed time 109 hours, and 51 minutes. Acquisition will be through the Rosman tracking station in 30 seconds.

PAO Apollo Control ground elapsed time 109 hours, 54 minutes. The crew of Apollo apparently bedded down for the night, on this stateside pass ending their fifth day in space. Half way through their flight. Tomorrow's day begins at 4:50 a.m. centeral daylight time, a day which will be taken up with - scientific experiments, further medical experiments, including leg volume measurements of all three crew members, and also docking module height measurements. Earth observations will be on the flight plan for tomorrow as well as the extreme ultraviolet x-ray experiments and the helium scan experiment. The Apollo crew spending a total of more than 19 hours total Apollo and Soyuz crew spending more than 19 hours together in the respective vehicles. Apollo commander Tom Stafford spent a total of 7 hours and 10 minutes in the four transfers in the Soyuz, and command module pilot Vance Brand spending 6 hours and 30 minutes, and docking module pilot Deke Slayton 1 hour and 35 minutes in the Soyuz vehicle. The crew's day ended tonight at ground elapsed time 109 hours and 30 minutes 25 minutes ago. We don't anticipate further conversation with the crew tonight. At ground elapsed time of 109 hours and 56 minutes. This is Apollo Control.

END OF TAPE

ASTP (USA) MC398/1
Time: 21:18 CDT, 109:58 GET
7/19/75

CC-H Apollo, Apollo, Houston.

CC-H Apollo, Houston, in the blink. On panel 230, we need REACT and NARROW.

CC-H Thank you much, Apollo. We're going over the hill at Bermuda.

PAO Apollo Control. Ground elapsed time 110 hours. A one-sided conversation between Dick Truly, and the Apollo Command Module not responding, just to reconfirm alignment of the high gain antenna for use of the ATS-6 satellite. We ant - don't anticipate further conversation with the crew tonight. At ground elapsed time of 110 hours, this is Apollo Control.

END OF TAPE

ASTP MC399/1
Time: 21:19 CDT, 110:04 GET
7/20/75

PAO Apollo Control announcement. Ground elapsed time 110 hours and 4 minutes. Further conversation with Dick Truly and the crew of Apollo. We'll hold the line up for this continued conversation.

CC-H Apollo, Houston. One of the things that I forgot to verify this evening, I believe, was to make sure that the speaker box is ON, so we'll have comm if we need it all night. We'd appreciate knowing that it is.

END OF TAPE

ASTP (USA) MC400/1
Time: 21:50 CDT, 110:30 GET
7/20/75

PAO Apollo Control. Ground elapsed time 110 hours and 30 minutes. The crew now 1 hour into their 8 hour sleep period. Wake up time Sunday morning, 4:50 a.m., central daylight time. On the flight plan for tomorrow are continuation of the scientific experiments aboard Apollo, including two separate Earth observation passes on revolution 78, when the crew will be asked to photograph and observe upwellings and bough waves or island waves around Hawaii and take photographs of this oceanographic feature. And as the Apollo passes the stat-over the state of Washington, the crew will be then asked to photograph snow covered mountains in the Seattle area, including Mount Baker, Mount Olympus, Mount Rainier and Mount Adams. On the following revolution 79, at ground elapsed time of 131 hours and 22 minutes the crew will be asked to observe and photograph the Lake Ara(?) region, Salt Flats in Australia and observe and photograph desert erosion and dune patterns in Australia, as well as, taking stero photographs of the great barrier reef and eddies, if they do see them, in the Coral Sea. Wake up time is 4:50 a.m., central daylight time. The crew now 1 hour into their sleep period. At ground elapsed time of 110 hours and 31 minutes, this is Apollo Control.

END OF TAPE

ASTP (USA) MC401/1
Time: 22:51 CDT, 111:29 GET
7/20/75

PAO Apollo Control. Ground elapsed time 111 hours and 29 minutes. The crew asleep now for 2 hours. Soyuz pulling further and further away from Apollo, approximately 31 statue miles ahead and below Apollo at this time. We have a revised figure from the flight activit-flight activities officer at the missions operations control room. The Soyuz crew spent a total of approximately 10 hours and 40 minutes in the Apollo Command Module and Docking Module. Leonov spent 5 hours and 43 minutes in the US vehicles and Kubasov spent 4 hours and 57 minutes. Sunday's activity will have the crew concentrating on Earth observation experiments, astronomy and technical experiments. Wakeup is scheduled for 4:50 a.m., central daylight time, Sunday. And here at the mission control center Neil Hutchinson, flight director, of the silver team reports all looks good aboard Apollo. At ground elapsed time of 111 hours and 30 minutes, this is Apollo Control.

END OF TAPE

ASTP (USA) MC402/1
Time : 00:30 CDT, 113:08 GET
7/20/75

PAO At ground elapsed time 113 hours 7 minutes, this is Apollo control. Apollo, with Soyuz about 30 miles in front and below it are presently west of the northern portions of Chile on a descending node, revolution 68. The crew presently just about half way through their sleep cycle with 4 hours and 20 minutes more to go. All is very quiet on the western front and we presume all is quite on the eastern front in Moscow too. No joint activity problems or unilateral problems being reported from either Houston or Moscow. Our next status report will be at 114 hours 8 minutes ground elapsed time. At 113:08, this is Apollo Control.

END OF TAPE

ASTP (USA) MC403/1
Time: 01:30 CDT, 114:08 GET
7/20/75

PAO 114 hours, 8 minutes ground elapsed time, this is Apollo Control. Crew has about 3 hours and 20 minutes left in their sleep period. No, no real activity here at mission control and certainly no activity like the first couple of nights aboard Apollo. Those cautions and warnings - transient caution and warnings have been controlled and the crew has been getting a couple of good nights of sleep in the past two days to make up probably for their very hectic sleep periods the first couple of days of the mission. Shortly after wakeup tomorrow morning, both Vance Brand and Deke Slayton will be involved in an Earth's observations experiment. It includes a mapping pass and that will take place over the Syehale region of Africa, that's the portion of Africa which this past year has undergone severe drought conditions. Principal investigator, Farouk El Baz, has a team of African geologic specialist there looking for signs of underground water that may be tapped to help relieve that drought in the Syehale. Also the crew will be looking at Europe tomorrow, taking pictures of the Straits of Gibraltor the Alps, the Danube River delta and of volcanoes or volcanic activity up in northern Europe. Using handheld cameras for this, quite a change from the Skylab Earth Resources experiments package, but Farouk El Baz and his investigators think they can get just as much data from the handheld cameras as they did from the elaborate multi-specaral cameras aboard Skylab. Our next status report will be at 115 hours, 8 minutes ground elapsed time. At 114:10 Dick Truly and Don Puddy have effect of change of shift in here and are tracking no problems. So it's very quiet at 114:10, this is Apollo Control.

MCC-H This is Mission Control. There will be an Apollo announcement in 1 minute.

END OF TAPE

ASTP (USA) MC404/1
Time: 02:30 CDT, 115:08 GET
7/20/75

PAO This is Apollo Control. At ground elapsed time 115 hours and 8 minutes. The Apollo with the Soyuz right directly in front of it, are presently due west of the Malagasy Republic over northeastern South Africa, the country of South Africa. All continues to be quiet on the western front and we've heard no further word from the mission control center in Moscow. Tomorrow is expected to be a very tight day for the Apollo crew. They've got just about a full day worth of experiments on tap, most of them Earth observations and astrophysical - the extreme ultra-violet, x-ray and helium glow surveys will be run throughout tomorrow's day and Earth observations mapping passes will be run simultaneously with many of those astrophysical experiments. Our next status report will be 1 hour from now at 116 hours and 8 minutes ground elapsed time. At 115:09, this is Apollo Control.

END OF TAPE

ASTP (USA) MC405/1
Time: 03:29 CDT, 116:07 GET
7/20/75

PAO 116 hours, 7 minutes ground elapsed time, this is Apollo Control. Very minimal activity here at Mission Control Houston, joint flight. John Temple talking to his counter part in the Soviet Union right now. We have flight surgeon Jerry Hordinsky's evening health status for mission day 5 crew health. Hordiensy notes there are no significant health problems known. Under remarks, Dr. Hordinsky indicates that the flight director has a listing of inputs that must be made to the crew if any lomatil or or other drugs are reported in the upcoming morning status report. So we won't know whether those questions are read up or not until the crew gives us their status report about 2 hours from now. Thet're scheduled to wake up in about an hour and 20 minutes. At 116:08, this is Apollo Control.

END OF TAPE

ASTP (USA) MC406/1
Time: 04:34 CDT, 117:11 GET
7/20/75

PAO 117 hours, 11 minutes ground elapsed time. This is Apollo Control. The Apollo and the Soyuz presently just east of the Soviet Union and north of Japan on Soyuz revolution 76 and Apollo revolution 70. Crew is scheduled to be awakened in just about 21 minutes. And once again, since the crew indicated that they did not hear yesterday's wake up music, we will be replaying the same song, which they tried to use yesterday. That is "Tenderness" and it's by a Soviet female artist whose first name we still don't know, Ms. M. Krostolinsky. And we're about half way through this shift so we won't be having a change of shift until later on this morning, sometime around 10 or 11. We'll come up once again just before crew wakeup to bring you, once again, "Tenderness." At 117:12, this is Apollo Control.

END OF TAPE

ASTP (USA) MC407/1
Time: 04:53 CDT, 117:31 GET
7/20/75

PAO 117 hours 31 minutes ground elapsed time, this is Apollo Control. Acquisition through the tracking ship Vanguard less than a minute away. We'll keep the lines open for the wakeup music by Mrs. Krystalinksy(?), "Tenderness."

SPKR (Russian)

SPKR (- - And blocked off the sun. After that engineeri Kubasov started carrying out the photography work.)

USSR (Russian)

CC-H (Music)

CC-H Good morning, Apollo. We're AOS through the Vanguard. We've got you for about 3 more minutes.

CC-H Apollo, Houston. We need to get the VTR POWER and TELEMETRY and INTERLEVER switch on panel 400 ON to allow us to dump some recordings, if you could get that for us, please, we would appreciate it. That's contrary to what you will be reading in your flight plan if you've taken a look at it. We want the VTR POWER, TELEMETRY POWER and INTERLEVER all ON.

CC-H Apollo, Houston. We are a couple of minutes from LOS. Our next station contact will be through the ATS at 117:53. We have a scheduled waste water dump at that particular period that we would like to delete. And assuming that we're probably going to have some problems with the Soviets using your VHF AM on alfa, we would like you to select VHF bravo - bravo simplex bravo.

CMP Okay. Simplex bravo. Good morning.

CC-H Good morning, Vance. You sure sound all bright eyed and bushy tailed there.

CMP And we've got your INTERLEVER and all that. And we want to go to VHF alfa.

CC-H We assume we're alfa now and we'd like to go to simplex bravo.

CMP Okay. Simplex bravo.

CMP And, let's see. That's means simplex alfa should be OFF.

CC-H I'm sorry.

CMP Simplex alfa should be OFF

CC-H Okay. Alfa's OFF and Bravo's ON.

CMP Okay. Hey, nice music there this morning.

CC-H Okay. Glad you enjoyed it. That's what you missed yesterday. Also, we show that the VHF ranging is on, and left over from yesterday. If you'd secure that for us, we'd appreciate it.

CMP Okay. It's secured.

CC-H Sorry to wake you up and have you start throwing switches all around like that. Maybe we'll relax a little bit here later.

CMP There's no problem. We're sort of used to throwing switches by now.

CC-H Roger. Going over the hill.

CMP Okay.

PAO Loss of signal through Hawaii. Reacquisition through Santiago and then ATS satellite in about 14 minutes. We'll be back just before Santiago. At 117:38 ground elapsed time, this is Apollo Control. 117 hours 52 minutes ground elapsed time. Like to

ASTP (USA) MC407/2
Time: 04:53 CDT, 117:31 GET
7/20/75

correct something I said a couple of moments ago. We went LOS Vanguard, not LOS Hawaii, as I had said. And we're about 30 seconds away from acquisition through the Applications Technology Satellite. And we'll keep the lines open for reacquisition through ATS.

END OF TAPE

ASTP (USA) MC408/1
Time: 05:16 CDT, 117:54 GET
7/20/75

CC-H Apollo, Houston. We're AOS throught the ATS. We have you for 43 minutes.

DMP Okay, Crip. Read you 5 by. How you reading us?

CC-H Loud and clear, Deke. How are you this morning.

DMP Just fine. Seemed like kind of a short one but mighty fine.

CC-H Well, we're looking forward to getting the (garble) experiment later here.

DMP You bet. How's everybody down there today?

CC-H All bright eyed and bushey tailed.

USA Outstanding.

CC-H You guys did a super job during that joint phase.

DMP Thank you. A lot of people did a good job on that too.

CC-H One item I could use this morning, if anybody's handy to do it, is to get the potable inlet value opened up.

DMP Potable inlet valve opened. Okay, we'll do that in just a second.

CC-H Apollo, Houston. If we could have ACCEPT please we're gonna uplink to you coming up on this Ascension pass and also we're gonna be dumping our VTRs so we're gonna lose voice here with you for a few minutes. I'll give you a call when we lock it back up. There is no update on the time for your mapping pads on this upcoming pass.

END OF TAPE

ASTP MC409/1
Time: 05:25 CDT, 118:03 GET
7/20/75

CC-H Apollo, Houston. We're talking at you now through Ascension. We've got you for about 3 and 1/2 minutes.

CC-H Apollo, Houston. We're a couple of minutes from LOS. Ascension here. The computer belongs to you once more so you can go back to BLOCK and we'll drop out, and we're going to terminate this VPR dump so we'll have voice across Africa. And for your information the weather looking good across there. You're probably going to have little problems with the Guinea Current due to clouds but it looks great across the desert.

CC-H Apollo, Houston. We're AOS through the ATS. We'll be talking with you across Africa here.

ACDR Roger, Crip.

CC-H Rog. We're just going to be sitting here listening to you as you go across.

END OF TAPE

ASTP (USA) MC410/1
Time: 05:36 CDT, 118:14 GET
7/20/75

CC-H Apollo, Houston. We'll be losing you shortly here on the ATS. Our next station contact will be through the Vanguard at 119 04 - 119:04. And that's about 36 minutes away. We'll try to get your morning report there. How did - how did the pass go, coming across Africa?

CMP Man! It was swift. A lot to see. I had clouds up - almost to Lake Chad, and then right over the Lake Chad area. Had - scattered to broken. So it was poor for - for photography. But from then on, it was wide open. Got a lot of pictures. And - of course, I got a good view of - Cairo area. Eleven Gene(?) Rift. We'll be talking into the tape recorder now. And - as I said - have a lot of photos.

CC-H Very good, Vance. Thank you.

DMP As far as the mapping part's concerned, Dick, we're doing it out of window 5. And that window is obviously considerably colder than number 1. And we have a continual problem with that window fogging over on us.

CC-H Copy that. It's fogged up pretty good.

DMP Well, I've got it wiped down. The problem is that it keeps fogging. And you just have to keep wiping it.

CC-H Copy.

CC-H See you at Vanguard.

PAO LOS through to - the ATS satellite -

PAO Antenna lock problems there. They'll talk at the crew through the tracking ship Vanguard, coming up shortly. At 118:29, this is Apollo Control.

PAO AOS Vanguard, for about 7 minutes.

CC-H Apollo, Houston. We are AOS through Vanguard for 7 minutes.

CC-H Apollo, Houston. If you read, I - got a couple items I need to update you on, on this morning's activities.

CMP Go ahead, Crip. How do you read, Crip?

CC-H Okay. Loud and clear, Vance. One item - I think you guys had talked about turning on your VHF FMs, so you could talk to your buddies if you wanted to. And you've got a GO on going ahead and doing that, if you like.

CMP Okay, real good. Right now, we're too busy to do it. But we'll do it first chance we get - just for our own benefit.

CC-H Okay. Fine. Okey doke. Vance, do you have a - time to make a couple of small MODs in your time line for this morning?

CMP All right.

CC-H You can pull out the book there, on - talking about 1 - oh, about 119-35 is the first one.

CMP Okay. Go.

CC-H Okay. We want to - to delete that helium injection you have there - and move it over, under Deke's column, at 120:10. And that's due to getting it in a little bit late last night.

CMP Okay - stand by (garble).

END OF TAPE

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CMP - - Okay, next.

CC-H Okay, fine and then we'll get it moved over. What we want you to do at that time, at 119:35 where you did have the helium inject we saw a little problem with the x-ray when we were doing that EUV raster and we want to do a purge on it. Actually, we have checked the attitudes at the - that you're at there and everything's okay. You can actually go to the book and do it or it's only 3 steps we really need and I can give those to you if you want to write them in now.

CMP Okay, I'll write them.

CC-H Okay, at 119:35 we want x-ray cover open.

CMP Go.

CC-H Okay, x-ray, low voltage power ON.

CMP Go ahead.

CC-H And x-ray purge START. And that's (Garble) you'll pick up everything else when you're - you're doing the cal, you can - which is called for next in your activities. You'll find out later when you pull out the EUV pad, you'll be following this activity with a cal and if you do that on time everything will work out hunkydory.

CMP Okay, very good.

CC-H Okay. One item is that - and I'll try to give you a call to remind you when we get AOS through the ATS but - but prior to doing this activity we're going to have you shut down the primary evaporator - deactivate the primary evaporator early so it won't get involved or won't be on when we're doing this - this purge.

CMP Okay. Understand.

CC-H Okay. We've got about 3 more minutes left through this pass and either now or a little bit later whenever it's convienent we can - we can get the morning report in. Incidentally, for the upcoming mapping pass there are no - not - no time update so you can start those nominal time.

DMP Okay. We're having a real hard time getting breakfast here, Crip. Could we either delay this morning report - -

CC-H Okay, yeah. We'll delay it. No sweat. Incidentally, we show the urine dump porter still active and of course we'd like to get that secured before we also get into - get into doing this pass.

CMP Okay, we've been venting it. I'll close it now.

CC-H Apollo, Houston. We are 1 minute from LOS next station contact will be through the ATS at 119:26. See you there.

CMP Okay.

PAO Loss of signal through the Vanguard.

PAO Next acquisition 15 minutes. That'll be through Santiago at 119:11. This is Apollo Control.

PAO 119 hours 23 minutes ground elapsed time. Apollo about 3 minutes away from acquisitioned through Santiago. We have the program manager's report for - report number 5 indicating that following the undocking yesterday, the simulated solar eclipse was performed and the crew thought the simulated eclipse went very well. Earlier

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this evening on a line from Moscow, the press briefing over there the Soviets indicated they also thought that artificial solar eclipse went as planned. Ultraviolet absorption experiment yesterday, apparently the retroreflectors on the - on the Soyuz were missed by the spectrometer on the Apollo. The principal investigator indicated that at 150 meters and 1000 meters separation he didn't think he was getting the data he wanted. However at 500 meters indication was that the data was quite good. Soft x-ray experiment, principal investigator for that experiment believes that the detector chamber on - in the hardware aboard the Apollo has contaminated gas and he would like the crew to change that out. That may occur later on today. Crystal growth activity experiment was activated. And that experiment henceforth will call for nothing but photography of the hardware every 12 hours. And for the MA128 geodynamics experiment concerned with plate techtonics, there was there were 3 additional revolutions of data obtained yesterday for that experiment and the multipurpose furnace is processing the MA131 sample, that's sodium chloride lithium flouride sample. Earth observations yesterday was quite good according to the principal investigator and today we've got about 3 Earth observations passes this morning alone. Zone Forming Fungi photo - photography was carried out yesterday. That'll be continued through the rest of the mission and the wicking, liquid threading and foaming demonstration - science demonstrations were completed yesterday. Those are on video tape and we'll get that video tape back here in Houston some time tomorrow. The consumables status shows that RCS propellant is actually lower than planned for this point in the mission. However, that's due to maneuvers and not due to any systems problems aboard the Apollo. The rest of the consumables are at nominal level or actually above in the case of the service propulsion system propellant. About 10 seconds away from acquisition through Santiago. We'll wait cap comm Bob Crippen call.

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CC-H Apollo, Houston. On panel 230, UP TELEMETRY to RELAY, UP TELEMETRY to RELAY. In the (garble).

PAO Been having some problems acquiring the ATS satelite this morning. We'll stand by - expect ATS coverage, any moment actually. At 119:36, this is Apollo control, standing by.

CC-H Apollo, Houston. We're AOS through Ascension and we're talking at you for about 6 minutes.

CC-H Apollo, Houston. I'm going to have to give you a time update for this EUV rev 72 pass we got if you can get your flight plan supplement up.

CC-H Apollo, Houston. How do you read?

CC-H Apollo, Houston. How do you read through Ascension?

ACDR Sound's good but double echo.

CC-H Good morning. I have a - an update to your EUV rev 72 pad if you want to pull out your flight plan supplement.

CMP Go ahead, Crip. Go ahead, Crip.

CMP Houston, how do you read?

CC-H Apollo, Houston. I read you loud and clear. How me?

CMP With a lot of echoes, but go ahead with your EUV.

CC-H Okay, Vance. Sunset time will be 120:14:33.

CC-H And I'm assuming you've initiated the purge. Did you get the primary evap secured for us or deactivated?

CMP The echoes are making it bad. Please repeat.

CC-H We copy your drifting-out attitude. You want to give us a VERB 58 to get back in, please?

ACDR Crip, you've got about 4 echos and you're completely unreadable.

CMP Crip, the one thing I did get is that the - we are now counting up to 120:14:33 instead of 120:14:16. Is that affirm?

CC-H That is affirmative - affirmative.

CC-H Apollo, Houston. How do you read now?

ACDR There you go. Lots better.

CC-H Okay. We had a double COMM configuration at you for a moment. We need to verify that the primary evaporator is secured, and we also need a VERB 58 to - because we're drifting attitude here.

END OF TAPE