```
Time: 18:01 CDT, 58:41 GET
7/17/75
     USA
                    (garble) CP, how do you read?
     USA
                    Houston, Apollo.
     USA
                    Yes.
                    No, standby. We ought to have the hatch shut.
     USA
     CC-H
                    Apollo, Houston. Did you call?
     USA
                    Bo, are you still there?
     CC-H
                    Roger. Still here.
     DMP
                    Roger, Bo. Dp here. Can you read?
     CC-H
                    Say again. And we are just ready to go over the hill.
     DMP
                    Okay. We're supposed to have greater than 4 on the
volt meter.
             For the furnace pressure, I read 3.6, as opposed to (garble).
Stand by.
     CC-H
                    Understand. We're going over the hill. We understand
3.6 instead of 4.
     PAO
                    Apollo Control. Ground elapsed time 58 hours, 43
minutes. The hatch is about ready to be closed by the crew of the the
Apollo, to close out the first day's transfer between the two crews aboard
Apollo - Soyuz. We have loss of signal through the ATS-6 satellite.
Next acquisition through Orroral Valley tracking station. We'll hold
the line up for this pass through the Australian tracking station.
     CC-H
                    Apollo, Houston, through Orroral for another 3 and
a half minutes.
                    Okay, Bo. DP here again. That pressure is slowly
     DMP
decreasing, so maybe we're just going to have to wait until we get to
put the proper time on that step.
     CC-H
                    Roger. Just suspend furnace operations for now,
and we'll call you back.
                    (Russian)
     ACDR
                    Hatches number 3 adn 4 beacon.
     SCDR
     ACDR
                    Say again. (Russian).
     SCDR
                    (garble - - number 3 and 4 beacon.
     ACDR
                    (Russian)
     CC-H
                    Docking module pilot, Houston. You have clearance
to proceed with furnace operations.
     SCDR ·
                    (garble) 4, 6, (garble)
     ACDR
                    I think it'll cool down that much, and I'm afraid the
time I get - I can't read that on my gage, Bo.
                    (garble)
     USSR
                    Valerei, (Russian)
     CMP
                    No, no, no.
     SCDR
                    Apollo, Houston. We're getting a lot of interference
     CC-H
with our communication. If you can turn down the speaker box, it
probably would help.
     USSR
                    (garble)
     USA
                    Just a little bit (garble)
                    We must open and close the gate, (garble). Is there
     USSR
not a (garble).
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ASTP (USA) MC225/1

ASTP (USA) MC225/2 Time: 18:01 CDT, 58:41 GET 7/17/75

CC-H Apollo, Houston. There is a little over a minute until LOS. We would like you to proceed with furnace operations with the current pressure. And we'll see you at Hawaii at 59:02.

CC-H Apollo, Houston. Did you copy my last transmission

about the furnace?

CC-H Apollo, Houston.

CC-H Apollo, Houston. In the blind. Would you have the

Soyuz crew to go to Simplex AM?

ACDR Yes. (Russian)

CC-H Apollo, Houston. Over.

ACDR Okay. You want to repressurize?

ASTP (USA) MC226/1

Time: 18:23 CDT, 59:03 GET

7/17/75

PAO Apollo Control. Ground elapsed time 59 hours, 3 minutes. We have about 15 seconds of tape from the Hawaii pass. We'll bring that tape up and play this Hawaii pass live.

ACDR (Russian)

SCDR I read you loud and clear. Just a moment.

ACDR (Russian)

CC-H Okay Tom. We're standing by for your status report.

ACDR Okay Bo. Pardon me-Cripp-on the on this one I couldn't see any decrease in our pressure. Our rules says that it's less than 15 millimeters for 5 minutes is okay. I guess they have a rule if it's greater than 1 millimeter for 6 minutes, it isn't okay. So there's a big discrepancy between ground rules that I guess somebody overlooked.

CC-H We-we're aware of that Tom and I gues - -

USSR (Russian)

CC-H We're looking at the procedure on your docking module checklist 8-4 where that gives the check and we're assuming that y'all have progressed there.

USSR Russian

ACDR Right, we've already gone through it, to re-equalize the pressure, open the hatch, pump the pressure up, equalize the (garble). We've had both hatches opened again and now we're doing another one.

CC-H Copy that.

ACDR But I think when you bleed the pressure down, it's going to decrease the temperature in that tunnel then the pressure is going to fall off some more. Yea.

CC-H We concur. USSR (Russian) MCC-M (Russian) USSR (Russian) MCC-M (Russian) USSR (Russian) (Russian) MCC-M USSR (Russian) MCC-M (Russian)

ACDR Okay Bo. It's the end of, of 6 minutes here nearly and can't see any change in ours. Of course, our gages not have the fineness that their's does.

CC-H Roger. Copy that. And we're about a minute from LOS, Tom. And next station contact is going to be Goldstone in 6 minutes. And I guess if Deke is just standing by waiting on that we suggest that he can go ahead and press on with the furnace operation.

DMP Yes. I'm already (garble) with that (garble).

DMP (Garble).
USSR (Russian)
MCC-M (Russian)

CC-H Apollo, Houston. Why don't you just stand by on the hatch thing instead of trying to repeat it. If it's flunked again

ASTP (USA) MC226/2

Time: 18:23 CDT, 59:03 GET

7/17/75

from the Soyuz then we'll let it try to stabilize a little bit. We'll talk to you at Goldstone about it.

ACDR

Alright. Real good, Cripp.

ASTP (USA) MC227/1

Time: 18:33 CDT, 59:13 GET

7/17/75

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CC-H
                    Apollo, Houston. We're AOS through Goldstone.
We've got you for 3 minutes.
     ACDR
                    Okav.
     CC-H
                    Apollo, Houston. AOS through Goldstone for 3
minutes.
     CMP
                    Roger, got you.
     ACDR
                    Roger, we've got you loud and clear. How us?
     CC-H
                    Loud and clear also, now.
     ACDR
                    Okay, is Moscow still talking to them?
     CC-H
                    That's negative, we're not configured for that
right now.
            I guess we're - I understand their test still was failing.
Can you give us the amount of delta P it was failing on?
     ACDR
                    Stand by. We haven't heard from them in a while.
     ACDR
                    Soyuz, Apollo.
     USSR
                    (Garble)
     ACDR
                    (Russian)
     USSR
                    Delta P is 10 millimeters for (garbel)
     ACDR
                    I understand. (Russian)
     USSR
                    You are right.
     CMP
                    Rate of 1 millimeter - -
     ACDR
                    Yeah, evidently, they're saying I millimeter a minute again.
I can't see any change on my gage in here, Crip.
     CC-H
                    Roger. We copy that. Our gage just doesn't have
that resolution of course.
     ACDR/CMP
                    No, we sure don't.
     CMP
                    (Garble)
     USA
                    (Garble)
     CC-H
                    (Garble)
     ACDR ]
                    Why don't you relay that to Moscow. I mean, I'm
sure you are but- -
     CC-H
                    We'll get that word to them.
     CC-H
                    We'll see you in Newfoundland in 7 minutes.
     ACDR
                    Say that again.
     CMP
                    Rog, 7 minutes over Newfoundland.
     CC-H
                    Roger and just hold up on that pressure thing.
We'll try to talk to you a little bit more about it there.
     CMP
                    Okay.
     ACDR
                    And the furnace is running.
     CC-H
                    Copy, furnace running.
                    Apollo Control, ground elapsed time 59 hours, 17
    PAO
minutes. An apparent problem in integrity check of the hatches aboard
the Apollo to assure that all hatches are sercurely fastened prior to
dumping the tunnel, the docking module tunnel. Our side of the hatches
seem closed tight enough, however, there seems to be an apparent
problem on the Soyuz side. Discussions going here at Mission Control
with the Moscow Control Center to determine how we can solve this
inability to get a proper integrity check of the tunnel prior to
closeout and beginning of the sleep period for the night. Discussions
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ASTP (USA) MC227/2

Time: 18:33 CDT, 59:13 GET

7/17/75

here leave an alternate plan of pressure leaving the tunnel pressurized for the night, therefore, there would be no leakage - no leakage aboard the spacecraft. The hatch did close - the Apollo/Soyuz hatch did close at 58:31, however when the Apollo crew attempted to close the Apollo hatch and get an integrity check there was a slight difference of pressure. As discussions continue here with the Moscow Control Center, the crew will be advised at the next pass through Newfoundland as to what states - steps to take to correct this problem. At ground elapsed time 59 hours, 18 minutes, this is Apollo Control.

ASTP (USA) MC228/1

Time: 18:43 CDT, 59:23 GET

7/17/75

CC-H Apollo, Houston, we're AOS Newfoundland, and got you for a total of about an hour here, and - we have coordinated with Moscow, and your GO to continue in your procedures with the - Delta - P integrity check that we've had.

DMP Okay, good. (garble) give you a call, because our CO2's getting up to 15. We're still (garble), but we just wanted to tell you.

CC-H Copy that. Press on with it then - get it out.

DMP Did they say what action they'll take over in Soyuz?

CC-H I guess we're - we're just going to go ahead and continue with no action right now. Just keep an eye on it.

ACDR Okay, Bo (sic). Just to reconfirm, you want us to go ahead and - and go ahead and go through our transfer back in the command module - affirmative?

CC-H That is affirmative, Tom. We want you to continue on.

ACDR Okay.

CC-H Command module, Houston. Vance, if you can, we're a little bit out of our attitude, and with - to make sure we got ATS all tied up through this evening, if you could just - do us another VERB 49 to get back on, we would appreciate it.

CMP Okay, bo (sic). Be glad to. Interesting, though, I don't know how we quite drifted out.

CC-H We assume that you did it during your P52 when you were in (garble).

CMP Perhaps.

CC-H Yeah, we've - seen that occur, you know when we were running sims down here, and this has occurred a couple of other times a little bit earlier in the mission.

CMP Okay.

CC-H Apollo, Houston - for command module. Vance, if you'll go ahead and give us ACCEPT, we will go ahead and - close your general monitor for you.

CMP Okay, you have POO and ACCEPT, Crip.

CC-H Roger, and you're squared away with what we did on your masking that ICDU problem. We're confident that this general monitor will - would handle any problems that really came up in your ICDU tonight.

CMP Okay, fine, and is there - anything in particular that I'm prohibited from doing with the computer?

CC-H That's a negative.

CMP Okay.

CC-H The only thing that would reset it - would enable that failure bit again was if you did a VERB 40 for some reason which we don't - there's no reason you should be doing it.

CMP That's right. Okay.

```
Time: 18:53 CDT, 59:33 GET
7/17/75
                    (Garble)
     USA
     CC-H
                    Apollo, Houston. Are you calling?
                    (Garble)
     USA
                    I'm sorry, Deke. If that's you, you're unreadable.
     CC-H
     USA
                    (garble) Soyuz calling.
     CC-H
                    Sorry about that.
                    Soyuz, Apollo. (garble)
     USA
                    (Russian)
     ACDR
                    (Russian)
     ACDR
     USA
                    (Garble)
     PAO
                    Apollo Control. Ground elapsed time 59 hours, 38
minutes. Flight director Neil Hutchinson deciding to keep the docking
module tunnel at 5 pounds per square inch pressure tonight in and
attempt to determine whether the leak into the tunnel is from the Soyuz
or the Apollo side. This is a leak in the tunnel and not a leak over
board. This drop of pressure came about when the Apollo crew was
attempting to close out the vehicle for the night. A l millimeter per
minute leak was detected into the tunnel either from the Apollo or
the command module - from the Apollo or the Soyuz side. The hatches have
been closed and the docking module tunnel will remain at 5 psi for the
night.
                    Okay, Vance. I'm going to open the equalization
     ACDR
valve. Alexey (Russian).
     ACDR
                    (Russian)
                    (Russian)
     ACDR
     SCDR
                    (Garble)
                    Apollo, Houston. Tom and Deke, we hear you talking
     CC-H
to Soyuz. And, I guess, for Vance, we're not hearing the down-link on relay.
Did we change that configuration on panel 10 at all?
                    Okay, Crip. A little while ago we were doing
something important, in that we had a LA tower and somebody cutting in. So
yes, I turned it off. Sorry about that.
                    Okay. Understand. If you don't mind turning it
     CC-H
back on, we'd appreciate it.
     CMP
                    Okay. You got it back.
     CC-H
                    Were they trying to clear you up for a landing
or something?
     CMP
                    Sounded like they were clearing somebody else.
     CC-H
                    (Garble)
     USA
                    They wouldn't ever talk to us. So we got mad and
shut them off.
     CC-H
                    Well, that'll teach them.
                    Okay. Hatch 2 is open, Crip?
     ACDR
     CC-H
                    Roger, Tom. Very good.
                    Soyuz, Apollo. (Russian)
     USA
     SCDR
                    (garble) 2 is open. Good afternoon, Tom.
     DMP
                    (Russian) Alexey.
     SCDR
                    What did you say?
                    (Russian)
     DMP
                    (Garble) yes, Deke(?). What is she going to do?
     SCDR
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ASTP (USA) MC229/1

ASTP (USA) MC229/2

Time: 18:53 CDT, 59:33 GET

7/17/75

ACDR

(Russian)

(garble) Tom, watch it (garble). It is a good idea. SCDR

CC-H I imagine you guys are getting a little bit tuckered

by now.

Just somewhere in the middle. We're a little CMP

bit tuckered, yes.

CC-H Well, we hope that you can get it squared away and get to bed here pretty quick. Incidentally, next time somebody's up in that vacinity, we'd appreciate another delta P reading on hatch 3.

Okay. That's in work.

ASTP (USA) MC230/1 Time: 19:03 CDT, 59:43 GET 7/17/75 (Garble). CC-H CMP Okay. That's in works. CC-H Okay. I'm sorry I didn't want to make anybody make a special trip. DMPOkay Crip, we're back on the air here. I'm reading about a - as close to zero as you can read. CC-H Okay. Very good. Thank you Deke. DMP Roger. DMP And Crip I completed step 64 here and went to 65 earlier and (garble) CC-H Okay Deke. Real fine. Crip, for a first timer, it sure is interesting to DMP see how easily you can lose things up here. I've lost my spoon twice now and I was really worried about it and each time I saw it flying by just a little bit later. So it seems you don't lose things permanently. CC-H Well, that's good to hear. I imagine there's probably plenty of places for them to get lost. Unfortunately we don't have that little screen like we had back on Skylab to collect things there. CMP That's right. CC-H Vance, talking about atmosphere a little bit, can you tell us when you got the LiOH can in today? We put one in first thing this morning. CMP CC-H Okay. CMP And we haven't done anything since. CMP Yea. I notice that a little bit later here you got

one scheduled for this evening too.

DMP (Garble)

CMP Okay. I guess we - we'll have to check

that.

ACDR Crip, how do you read me back in command module?
CC-H We're reading you loud and clear now, Tom.

ACDR All right.

CC-H Apollo, Houston. We finished with the computer and you can go ahead and go back to BLOCK and go ahead and give us that E memory dump any - anytime you're ready.

ASTP (USA) MC231/1

Time: 19:13 CDT, 59:53 GET

7/17/75

ACDR Houston, Apollo. Do you read? Over.

CC-H Loud and clear, Tom. Go ahead.

ACDR Do you read Vance?

CC-H Negative.

CC-H I'm reading you loud and clear but I have not heard Vance call.

ACDR Okay, here comes the VERB 74.

CC-H Okey-doke.

CC-H Apollo, Houston. We show that you're still in ACCEPT. You can go back to BLOCK on the computer. And Tom, if you got a few minutes, we'd like to talk to you about where you are this evening as far as getting to bed and about getting up in the morning.

ACDR Okay, go ahead.

CC-H Okay, had a little squeal there on the - coming through the squawk box. The - I guess it looks to us like you're probably pretty close to an hour away from getting to bed and that's gonna make wakeup come - come kind of early in the morning. Do you still feel like you want to call as we previously talked about it, to get you up on time. Are you (garble).

CMP How early was that Crip? We're discussing it, we forgot.

CC-H Okay, 66:40 is when we were gonna give you a ca - call. That's about 6 hours and 40 minutes from now.

ACDR Well, I think we can keep pressing on. We'll try to keep pressing on the same flight plan then.

CC-H Okay, your option. Men of steel.

CC-H Apollo, Houston. We still got about 20 minutes of this ATS pass and a little of Orroral Valley. And, Tom, we understand your concern about keeping everything on time. You might continue to think about it. If you change your mind before we go IOS here, well, just let us know.

ACDR All right, Crip.

ASTP (USA) MC232/1

Time: 19:23 CDT, 60:03 GET

7/17/75

Apollo Control. Ground elapsed time 60 hours, 7 minutes. The crew preparing for their third night in space. Stafford and his crew members, Deke Slayton and Vance Brand, finishing housekeeping chores before bedding down for their sleep period. The pressure problem developed shortly ago when, as the Apollo crew left the Soyuz, the number 4 hatch on Soyuz was closed, number 3 hatch, which forms the tunnel between hatch 3 and 4, was closed. And then the tunnel was brought down to 5 PSI. Soyuz remains at 10 PSI. And then the remainder of the docking module, the two hatches between Apollo and the docking module, hatch 1 and 2, remain open. Now during the pressure integrity check of tunnel number 2, between hatch 3 and 4, on the Soyuz side, showed a slight pressure drop of 1 millimeter per minute. Going - following a second pressure check, again the pressure read showing a slight drop of 1 millimeter per minute. This was reported by the Soyuz crew. Since their gages do record pressures at that low a, that low a drop. The - aboard Apollo the gages do not show that small a pressure change. So with the present situation as it stands is that the tunnel will remain at 5 PSI, the tunnel between the hatch 3 and 4, and the remainder of the docking module will be open to the command module and this will be maintained at 5 PSI.

PAO Normally the command module hatches 1 and 2 remain open between - periods between the transfers and this tunnel and docking module is maintained at 5 PSI while the Soyuz is pressurized at 10 PSI. The crew should be retiring very shortly. At ground elapsed time of 60 hours and 10 minutes, this is Apollo Control.

ASTP (USA) MISSION MC233/1 Time: 19:32 CDT, 60:12 GET

Date: 7/17/75

CC-H Apollo, Houston. - You gents have time to chat about a few more items before I say good night to you?

ACDR Go ahead.

CC-H Okay, Tom, - just make us feel comfortable with the tunnel 2 situation. We would be interested in getting a - one more delta P reading, if we could, off of hatch 3. I would like to also tell you that with that problem we've had with the ducer, and the O2 tank 2 there is a potential that you might end up getting a CYRO PRESS C&W tonight. That - option is whether you want to turn off the speaker box, and put a guy on headsets for the evening, but what ever way you feel comfortable. We don't think it is probable, but it is possible. Also one other item, - I don't know whether you worked it in or not, but if Vance did get a height measurment we would be interested in it just for record keeping purposes.

ACDR Okay, the thing was zipped and (garble).

CC-H I'm sorry - Tom, I could not read you.

ACDR Okay, we didn't get it in the timeline.

CC-H Okay, I understand we did not get the height measure-

ment.

ACDR Negative. We'll give you some more stuff later on. We're going to go to bed now.

CC-H Okay, I'm going to go ahead and say - - SPKR (Garble)

ASTP (USA) MC234/1

Time: 19:59 CDT, 60:39 GET

7/17/75

Apollo Control, ground elapsed time, 60 hours, 39 PAO minutes. The Apollo Crew, now in their sleep period for the 3rd night aboard spacecraft. And the Soyuz crew is scheduled also to be asleep at this time. Today's activities progressed along according to nominal flight plan. The rendezvous activity commenced with the phasing maneuver at ground elapsed time 48 hours and 21 minutes. The combination - corrective combination maneuver was performed at 49 hours and 15 minutes. And docking - soft docking was effected at 51 hours and 52 minutes and 30 sec - seconds. Following a period in the Soyuz craft, the Apollo crew returned and closed the hatches at 58 hours and 31 minutes. Shortly thereafter, during an integrity check of the tunnel number 2, which is formed by hatch number 3 and hatch number 4 on the Soyuz side. The Soyuz crew reported a slight pressure drop of 1 millimeter of mercury per minute. This is a very small loss of pressure, which was not registered on the Apollo guage. Flight director Neil Hutchinson said this presents no problem. Both crews have gone to bed and he reports after conversations with the Mission Control Center in Moscow that they feel the same way. There's no problem. The Apollo crew is scheduled to awake tomorrow morning at ground elapsed time of 67 hours or approximately 2:20 a.m. central daylight time. The Command module hatches 1 and 2 remain open for tonight. The docking module and command module under 5 PSI pressure. The Soyuz craft remains at 10 PSI. With Apollo/Soyuz in 34th revolution of the earth, their day begins tomorrow morning at 2:20 a.m. central daylight time or ground elapsed time of 67 hours. At ground elapsed time 60 hours, 42 minutes, this is Apollo Control.

ASTP (USA) MC235/1 Time: 21:44 CDT, 62:24 GET 7/17/75

PAO Apollo Control. Ground elapsed time 62 hours, 24 minutes. The crew has been asleep now for a little more than 2 hours. Wake up time at 2:10 a.m. tomorrow morning or ground elapsed time of 67 hours. The Apollo/Soyuz now docked for almost 11 hours. Docking time was 51 hours and 52 minutes. Tomorrow's activities are scheduled, further transfers between the 5 crew members aboard the Apollo/Soyuz, implementation of joint experiments. Again wake up time 2:10 a.m., eastern - central daylight time, ground elapsed time of 67 hours. Apollo/Soyuz now crossing the United States on revolution 36. At ground elapsed time 62 hours, 24 minutes, this is Apollo Control.

PAO Between Soyuz and the docking module, a slight pressure drop was recorded on the gage in the - on the hatch side of the Soyuz vehicle. However, flight director, Neil Hutchinson, reports -

ASTP (USA) MC236/1 Time: 22:46 CDT, 63:26 GET

7/17/75

PAO 63 hours, 26 minutes, ground elapsed time, this is Apollo Control. Apollo and Soyuz presently over Micronesia on Soyuz Presently in ATS data coverage. We just received the mission evaluation report from Don Arabian for the third reporting period, which includes GET hours 33 through 55. Briefly excerpting from this report from Don Arabian, the Apollo/Soyuz mission progressed essentially according to the nominal flight plan during this reporting period, following breaking and station keeping. Both spacecraft performed the necessary orientation maneuvers for docking. The Apollo spacecraft performed the active docking. Captured occured at 51:49:12 and a hard dock is expected at 51:52:30, Soyuz ground elapsed time. An acetate odor was noted by the Apollo crew near the time of docking. The cause of the odor is being assessed. Docking module pilot transferred to the docking module to prepare the module for crew transfer operations and at 54:59:30, Apollo commander greeted the Soyuz commander. Stafford and Brand then - excuse me Stafford and Slayton then transferred to the Soyuz orbital module for additional greetings and symbolic activities and eating with the Soyuz crew. The president of the United States transmitted his congratulations to the crews of both the Apollo and Soyuz. Headsets were transferred from the astronauts to the cosmonauts at appropriate times so that the President could speak to each individual crewman. Stafford was interrogated as to the functional capability of the ASTP docking system for future space missions in reply to his opinion it was the best of the three that he has used. Arabian also notes that interference to the communications systems occurred during rendezvous and docking. Noise on the VHF, which affected both voice and ranging, is believed to have been caused by an aircraft or a weather reporting station. Noise clicks in both the voice communications and the television picture also occured through the ATS 6 link when the Apollo was over Asia. The rate of the noise indicates that a ground radar may be causing that interference. A request has been made to the Soviet Union to investigate the problem. Three sim bay experiments, the MAO48, 083 and 088 were successfully activated earlier at 34:30 Soyuz GET and checked out. However, the extreme ultraviolet survey experiment MA083 raster scan was deleted from the activation procedure and will be deleted from the mission. The MAO41 samples, which are being processed in the multi-purpose funace, MAO10 were in the soak period longer than planned, the effect of that extended soak period is being assessed and the use of the furnace for the symbolic activities, SA001 experiment, has been deleted. Our next status report will be at 64:26 ground elapsed time. At 63:29, this is Apollo Control.

ASTP MISSION MC237/1

Time: 24:29 CDT, 64:09 GET

Date: 7/17/75

SPKR

30 seconds

PAO 64 hours, 9 minutes, ground elapsed time. This is Apollo Control. Apollo and Soyuz presently over northern South America. Momentarily in the auditorium, and in Building 2 press center, we are expecting a change-of-shift briefing with off going flight director Neal Hutchinson and his electrical and environmental systems officer, Charles Dumas. We'll be bringing that press briefing over the release line when it happens. At 64:10 ground elapsed time. This is Apollo Control.

ASTP (USA) MISSION MC238/1 Time: 00:44 CDT, 65:24 GET

Date: 7/18/75

PAO 65 hours, 24 minutes, ground elapsed time. This is Apollo Control. Very quiet evening here in Mission Control. The docked spacecraft presently northwest of the United States. About 400 miles off the coast of Oregon on Soyuz revolution 38. The Soyuz crew is scheduled to awaken this morning, just about an hour from now, at 66:30 ground elapsed time. And 30 minutes later, the Apollo crew will be getting up at 67:00. The 3 Apollo astronauts, will be eating breakfast in their own spacecraft tomorrow, as will the Soyuz cosmonauts. However at lunch, they will have transferred, and the Soyuz commander, Alexey Leonov, Tom Stafford, and Deke Slayton will be eating lunch in the Apollo. And Valeriy Kubasov, and Vance Brand will be eating lunch in the Soyuz. There are several television items scheduled for tomorrow. Television commentary over the Soviet Union which will be with Valeriy Kubasov as the commentator. Each of the luncheon meals, will have commentary associated with the food. The Soyuz commander will be talking about Russian spacefood. And Vance Brand will be talking about American space food. And then later on Vance Brand will be providing commentary in Russian, for a tour of the Florida Coast. Our next Apollo announcement will be at 66:26. At 65:26, this is Apollo Control.

ASTP (USA) MC239/1

Time: 01:46 CDT, 06:26 GET

7/18/75

66 hours, 25 minutes, ground elapsed time, this PAO is Apollo Control. The docked spacecraft presently due south of the subcontinent of India on Soyuz revolution 38, had a somewhat interesting experiment here in mission control. Flight director Don Puddy requesting suggestions as to what it was that the Apollo crew smelled when they first opened the docking module yesterday morning. The crew noted a smell somewhat like that of acetone and during the evening the crew had performed a minor fix on the multipurpose furnace which is stored in the docking module. That fix involved the use of a velcro retainer and the experiment here in mission control involved burning a peice of velcro to see if a similar smell is emmitted by the velcrow when it burns. According to Don Puddy the test shows absolutely nothing because velcro doesn't smell very much when burned. It's a self extinquishing material and as remarked here in mission control it smells like burned velcro, not like acetone at all. A couple moments earlier joint flight director here at MCC Houston conversing with a Moscow joint flight director about a pressure integrity problem noted earlier this evening. The Soviets proposed a change in the specifications to the pressure integrity check. During the second and third transfers tomorrow the Soviets wish the transfers to be carried out perfectly nominally according to the program. They do want to change the specifications for the integity check following the 4th and final transfer. They want to be sure that hatch 3 and 4 are pressure tight. Essentially, what they want to do, they want the tunnel between hatch 3 and 4 to be thermally stablized and they're proposing two pressure integrity checks to accomplish this. The first pressure check will be a normal check and the leak rate for that is 1 millimeter in 6 minutes. In addition to the normal pressure check, the Soviets want one performed which would be 10 millimeters in less than 6 minutes. That's the magnitude of one difference there so following tomorrow's fourth crew transfer, the Soviets will be performing two pressure integrity checks on Apollo/Soyuz hatch 4 to make sure that the Soyuz hatch is air tight. The problem could be a problem in the docking module hatch, that's hatch 3 or it could be as Neil Hutchinson mentioned on this evenings change of shift briefing just the problem with tempreture differences in the gasses and then responding to Boyles law, those gasses would change pressure as temperature changed. The Soyuz crew is scheduled to be awakened in about 1 minute from now. The Apollo crew will be awakened about 30 minutes from now so we'll return shortly before Apollo crew wakeup. At ground elapsed time 66:29, this is Apollo Control.

ASTP (USA) MISSION MC240/1 Time: 01:59 CDT, 66:39 GET

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PAO 66 hours 39 minutes ground elapsed time. Presently the crew is not awake but night in Moscow is being up-linked. That's by singer called Dee Trochian, and a chorus. So, we'll just keep the lines open, for the wake up call and nights in Moscow. Crew presently over eastern Russia.

MCC-M (We'll give you the count time right now, and the time for the correction. Ten seconds, - ten seconds to 10:00 - 10:00. In one minute I could give you more precise information. Get ready.)

MCC-M (GET will be 66:41 Moscow time 10:01. Forty seconds to go. We're waiting for you. Okay, pad 14. Find it please.

USSR Okay, now I've found the pad 14.

MCC-M (That's good.)

MS (garble)

CC-H Good morning, Apollo. We are with you through the end of an ATS pass. We're about to go LOS. Our next station contact will be Santiago in 41 minutes. I know it's kind of early to start a day, but might as well get up and get with it. Incidently, we're not positive whether you guys chlorinated your water last night. If you did, you left the portable water valve closed, and it would be kind of potent if you took a drink out of it.

USA Would be what Crip?

CC-H It would be kind of strong if you took a drink out of it. So if you did - so if you did chlorinate, you better open up the portable water valve for a while before you - before you take anything to drinking out of it.

USA Okay, stand by. We'll check it out.

CC-H Okay. That's something that Vance would normally probably do in the pre-sleep checklist. That's something that was called out, and we're just not sure whether you did it or not.

MCC-M 11, 10, 40, 102

USA Hey, Vance

MCC-M (48 12 43 16 102 48 14 04 43 101 49 15 36 55 102 51 - 17 09 27 102 51 18 36 50 102 53 20 08 59 102. 54 - 21 36 50 102. 54 - 22 52 59 099. 55 00 25 22 100. 56 - 0 1 57 24 101. 57 - 03 29 49 102. 59 - 05 03 15 101. 60 06 38 13 100. 60 - 07 47 09 099. 61 09 20 54 101. 62 - 10 53 20 101. 64 - 12 25 58 101.)

PAO Loss of signal for the Apollo, - still acquisition of signal through the Soyuz.

USSR - - 101. 65 - 15 59 30 - -

ASTP (USA) MC241/1

Time: 02:39 CDT, 67:19 GET

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Acquisition about 2 minutes away through Santiago. Apollo and Soyuz presently west of Chile on orbit revolution number 38 for the Soyuz. Flight Surgeon Jerry Hordinsky reports no known health problems among the three Apollo crew members, and had an additional comment about the acetone odor. According to Dr. Hordinsky, the docking module odor not specifically identified, but it could be methylethylketone which is a solvent, and that's a strong possibility. And that chemical is associated with the insulation layers surrounding the furnace. Crew sleep has been on the low side, but no performance decrement is expected according to Dr. Hordinsky. With less than a minute away from acquisition through Santiago, we'll keep the line open.

CC-H Apollo, Houston. We are AOS through Santiago. It's a real short pass. About a minute and a half.

ACDR Okay, Crip. We're with you.

CC-H Roger. For that upcoming pass we've got - I've got a new stop time for the camera, if somebody wants to note it down.

ACDR Please stand by. (garble)

CC-H That's on the rev 39. ACDR Okay, Crip. Go ahead.

CC-H Okay. The start time is the same. The stop time is now 68:04:10. And we're about 30 seconds from LOS. We'll have you again when you lock on the ATS. And we should be able to get you at about 67:39. 6739.

ACDR 6739.

CC-H Roger. That's about 16 minutes.

ASTP (USA) MC242/1 Time: 02:49 CDT, 67:29 GET 7/18/75

 $\tt CC-H$ $\,$ Apollo, Houston. We're coming at you through the ATS. Should have you about 40 minutes.

ASTP (USA) MISSION MC243/1 Time: 02:59 CDT, 67:39 GET

Date: 7/18/75

CC-H Apollo, Houston, we're talking at you through the ATS. Got you for about 33 minutes.

ACDR Okay Crip. We prepared breakfast here. We're just coming up on the first Earth obs pass, and the (garble) running, and (garble)

CC-H Very good, coming up on the tip of Africa right now looks like.

ACDR That's affirm. We're still over the waters.

CC-H Apollo, Houston. We'd be interested in finding out what the status of the portable inlet valve is, whether it is open or closed, and what - went on regarding chlorination if you could help out please.

CMP Okay. Good morning, Crip. I'll give you some words on the water.

CC-H Okay, Vance, we'd appreciate it.

CMP Okay, I chlorinated last night, and further procedure had the portable inlet valve OPENED. And afterwards closed it because and I supposed you still wanted to be filling up the waste (?) tank. I had a drink about 10 minutes after I chlorinated. It didn't taste too bad. And I've been drinking it quite a bit this morning, and - taste great. The valve is still closed, but I'll try to get through the (garble) to open it if you want.

CC-H Okay, Vance, we'd like to go ahead and have it opened. And the reason we called for it, is that we've had some problems in the past with - that thing closed, and not getting good circulation through there, and pretty good blast of chlorine. That was why we alerted you to it.

CMP Okav

CC-H Apollo, Houston. I am going to need to get some updates to today's activities to you primarily regarding the furnace, and the fact that we got the sample in a little bit late, and we're going to have to modify how we handle the sample as far as cooling it down. And I was going to do it if I could without interfering with Deke's pass coming across here. You guys help me out there, when you think you might be able to copy some of it down, without interfering with your breakfast.

CMP Okay, why don't you let us wait a little while. We're getting a little tied up here.

CC-H Okay, fine.

ASTP (USA) MC244/1

Time: 03:09 CDT, 67:49 GET

7/18/75

ACDR Hello, Houston, Apollo.

CC-H Good morning Tom. Go ahead.

ACDR Well, we're doing a bunch of things at one time

here but let me give you the crew status report.

CC-H Oh, we'd appreciate hearing that.

ACDR First of all we're still very much alive and healthy.

Feel in great shape, but to the more mundame things. Ready to copy?

CC-H Yes, sir. Shoot it at us.

ACDR All rght. For yesterday. I ate all my breakfast. For meal 2 there wasn't much time and we used a snack and that's all

it was. I had turkey, apricots, and orange pineapple juice for meal

2. For the 3rd meal, we were in Soyuz. It was like at Tashkent. At eeverything in sight.

CC-H Brave Vance.

CC-H How about the ears?
ACDR Roger. (Laughter)

ACDR Okay I had 5 hours of good sleep. I had 3 lobotails just as prophylactic. And I'm full to my ears with fluid. And my dosimeter - same as the day I launched - ll001. Okay, for the CP, ate everything for breakfast. He had the same kind of snack for the 2nd meal. He had an orange pineapple drink, turkey and apricots. And for the evening meal, he ate everything but the Romaine soup. 5 hours of good sleep. He had 2 lobotils - same mode (garble). Estimated 90 seconds of fluid. PRD reading 48107. For the DP, ready to copy?

CC-H Yes, sir.

ACDR Okay, he had everything for breakfast plus 2 orange drinks - orange pineapple drinks. He had the same thing for lunch, apricots, turkey and orange pineapple drink. Evening meal was over in Soyuz. He ate everything. Okay, his PRD reading is 61004. 5 hours of - 5 hours of excellent sleep, 2 lobos in a preventive mode and estimates 20 gulps.

CC-H Tom, Surgeon would appreciate knowing when you took the lomotil and also they - said they wouldn't really recommend taking them prophylacticly.

ACDR Tell him we all had it before we went to bed last night, but what was the last comment?

CC-H I understand you before you went to bed, was that right?

ACDR That's right.

CC-H Okay, and Surgeon was just saying that he did not really recommend taking them prophylacticly.

ACDR Well he's not up here a hundred miles above the Earth jammed full of spacecraft and have to meet a tight time line either. He can walk out to the potty room, we can't.

CC-H Roger.

CC-H Okay, we've got all the report there, appreciate it.

ASTP (USA) MC244/2

Time: 03:09 CDT, 67:49 GET

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We did a little bit of research regarding some of the food problems you people had had locating some of this stuff. And we think it may have occurred because all of it was not tied together for the stuff that we've got in Bl there, but it all - all should have been packaged in. You'll probably find it when you - as you're going through and using the next couple of days. I believe tomorrow is the last day - correction, today's the last day that you'll be eating out of that particular locker.

ACDR Yeah.