

ASTP (USA) MC195/1
Time: 11:04 CDT, 51:44 GET
7/17/75

ACDR (Soyuz, please tell us when you begin your maneuver.)
ACDR (Soyuz, this is Apollo. How do you read?)
USSR Read fine.
ACDR (Yes, please tell us when you begin your maneuvering.)
USSR Soyuz initiating orientation maneuver.
USSR Ready?
ACDR (Yes, very slowly.)
USSR Visual orientation initiated.
ACDR (Roger.)
USSR Soyuz docking system is ready.
ACDR (We are also ready, Apollo is ready.)
USSR Do you see spacecraft?
ACDR (Yes.)
ACDR (We see it. It's very beautiful. We see your periscope.)
USSR That's a good picture.
CC-H Apollo, Houston. As far as our TV picture goes, it's been real good. It is, as you maneuver around, and the sunlight rains on the 2 spacecraft it does get very bright. If you're in average slave and linear -
USSR The maneuver is completed.
ACDR (Roger.)
USSR Visual orientation established.
ACDR (Garble) slaving.
CC-H Good show. Let's stay there. Looking fine.
ACDR (I'm approaching Soyuz.)
USSR Oh, please, don't forget about your engine.
ACDR (Laughter)
USSR (Garble.)
ACDR (Very good. One half meter.)
ACDR (Less than 5 meters distance.)
CC-H Deke, Houston. Can you close down the f stop some?
ACDR (3 meters.)
ACDR (1 meter)
ACDR (Contact.)
USSR Capture.
ACDR (We also have capture.)
ACDR (We have succeeded. Everything is excellent.)
USSR Soyuz and Apollo are shaking hands now.
ACDR (We agree.)
CC-H Apollo, Houston. Deke, when you have a chance, we'd like to close down the f stops. We do have a good picture but it's too bright.
CC-H Yeah - right there, Deke.
DMP Is that okay, Dick?
CC-H Deke, it got a little bit better, but it's still a little bit too bright. While you were fooling around with it, though, we did get a good picture when you were closed down a little more than

ASTP (USA) MC195/1

Time: 11:04 CDT, 51:44 GET

7/17/75

you are now. And - we got all the events, we're following you on the ground, you're looking real good. We copied Alexey saying your holding hands and we see it too.

ACDR (Soyuz, this is Apollo. Initiating the traction.)

ACDR Houston, Apollo.

CC-H Go ahead, Tom.

ACDR (Tell Professor Bushuyev it was a soft docking.)

It was a soft docking.

USSR Ready to mate.

ACDR Turned your latch loose.

ACDR (Russian)

USSR Perfect. Beautiful.

ACDR (Close active hooks. Docking completed.)

ACDR Docking completed, Dick. Docking is completed,

Houston.

USSR Roger. (Russian)

USSR Well done Tom it was a good show. We're looking forward now to shaking hands with you in board Soyuz.

ACDR (Thank you, Alexey. Thank you very much to you and Valeriy.)

USSR Good time.

SPKR (Garble.)

USSR (Russian)

CC-M (Russian)

CC-H Apollo, Houston. This is for Deke. Deke on that TV camera, we'd like you to go to peak, please.

DMP Okay. We'll try her.

CC-H Okay.

USSR (Russian)

END OF TAPE

ASTP (USA) MC196/1
Time: 11:14 CDT, 51:54 GMT
7/17/75

CC-H Okay.
USA (Russian)
USSR (Russian)
CC-H Apollo, Houston. I'd like to check two switches on panel 181. We'd like the TV SELECT and the CML - CM2 switch - both of them to UP TELEMETRY. That's the center position.
ACDR Say again, Dick.
CC-H Okay. Panel 181, TV SELECT and CML, CM2 to the center position; UP TELEMETRY.
ACDR Roger. (Garble)
ACDR Okay, Dick. We're turning off the VHF on panel 10.
CC-H Okay.
ACDR Okay. Now we can - okay.
CC-H Okay. Now, Tom, if you can hear me. I think you copied that. Panel 181, TV SELECT and CML/CM2 to UP TELEMETRY; that's the center position.
ACDR Roger.
CC-H Okay.
CMP (Soyuz, this is Apollo. Turn off power of the docking system.)
CMP (Soyuz, this is Apollo. Soyuz, this is Apollo.)
CMP (Soyuz, this is Apollo. How do you read?)
CMP (Very good. Docking system power OFF.)
CMP (Soyuz, this is Apollo. Docking system power OFF.)
CMP (Soyuz, this is Apollo. Now the docking system power is OFF. Over.)
USA (Garble)
USA (Garble) VHF (garble).
CMP Houston, Apollo.
CC-H Apollo, Houston. Go ahead, Vance.
CMP Dick, we have P25 UP and we can reset the VHF ranging any time you want.
CC-H Okay. Thanks for letting us know.
ACDR Oh, you want it - oh, okay. You aren't ready to do that I just turned off the range (garble). I'd better get it back into configuration.
CMP Yeah. The ground has to watch them.
USA Okay. Let's see, where the heck were we?
CMP That's probably about all it takes.
ACDR This alignment is beautiful. (Garble) just flipped the screw and the center just turned.
CMP Great. Mind if I take a look?
ACDR Have at it. It's awful weak, but if you look, you can see it.
CMP (Garble) aligned perfectly, huh.
USA (Garble)
CC-H Apollo, Houston. You'll be able to terminate the P25 at 52.05. I will call you back and remind you of that and also, if you get a chance, the polarizing filter on the camera in slot number 11 needs some rotation; that light is (garble) it out. Thanks, Vance.
ACDR Dick, as far as interesting for alignments, the center of my COAS is splitting the exact center of the bolt that's holding on his target - on the center of his target.

ASTP (USA) MC196/2
Time: 11:14 CDT, 51:54 GMT
7/17/75

CC-H Great. Sounds good.

CC-H Apollo, Houston. Be advised you're pretty close to coming across - over the Soviet launch site. We're past the places that we got the previous comm interference; you might want to try reconfiguring the comm and that would get us back the relay.

ACDR You got it.

CC-H Okay. And if it's a problem to you, Tom, go back if you need to.

ACDR Okay.

END OF TAPE

ASTP (USA) MC197/1
Time: 11:24 CDT, 52:04 GET
7/17/75

CC-H Apollo, Houston. It's 52 plus 05 and Vance,
you can terminate the VHF bias check. Thanks much.
CMP Okay. You bet.
CC-H Apollo, Houston. We had a really good TV picture -
Vance, when we went into the Earth's shadow there it looks like it's got
darker so you might open up that camera a little bit. And you did
a real fine job on that polarizing filter, that worked real well.
CMP Okay.
ACDR And Dick, I'd estimate my final closing velocity be-
tween 0.3 and 0.4 of a foot per second on contact.
CC-H Okay, Tom. I copy. It sure looked good down here,
dead center.
ACDR Why don't you - -
USA (Garble)
DMP (Russian)
ACDR Houston, Apollo.
CC-H Apollo, Houston. Go ahead, Tom.
ACDR Okay. Deke smells something pretty bad up in the docking
docking module (garble) - -
DMP (Garble) go up there and class it.
ACDR We're going on the oxygen masks right now. And we're
going to close that hatch.
CC-H Roger. And could you describe what the problem is?
ACDR (Garble) We can smell it. It smells like - it's
kind of weird.
ACDR It smells something like (garble). I can't tell.
But it might be like the flight glue or something like that.
CC-H Okay. About all I copied because of the voice and
the mask comm is that it - it is a very bad odor.
ACDR Yes.
ACDR We got good partial pressure in the module, 02
is 200 millimeters.
CC-H Okay. And the one thing that was garbled Tom was
your description of the smell and that would help us a lot. Was it a
burning smell or can you relate it to anything?
ACDR Yes. It was a burning smell. It smells something
like burnt glue.
CC-H Burnt glue or something like that. Okay.
ACDR Yeah. It could smell something acetate.
CC-H Okay. Copy.
ACDR It smells like acetate.
CC-H Roger. Understand Tom.
CMP But I think we noticed - I've smelled that in
new vehicles before.
CC-H I'm sorry Vance we dropped out.
ACDR But it's really strong.
CC-H Okay. I dropped out when Vance said it - do you
say that you think you have smelled the odor before or not?
CMP Yeah. We - the thing to sort out right now is
if we smell the same thing that we all smelled just slightly in the

ASTP (USA) MC197/2

Time: 11:24 CDT, 52:04 BET

7/17/75

vehicle a couple of days ago. You may remember sometime being around spacecraft in a plant smelling glue. Perhaps the same sort of thing that they used to put on Velcro.

CC-H Roger. Understand. And are all three of your guys back in the command module now with the hatch shut or not?

DMP Not yet.

ACDR No, the hatch isn't shut yet we're just going to stay here for a minute. We've got the masks standing by so we can put them on. No sweat.

CC-H Okay. Fine, Tom. We still have 15 minutes of voice here, through the ATS, so please keep us posted.

ACDR Sure will.

ACDR And - and it does have a tendency to burn your eyes.

CC-H Roger. Copy.

ACDR Okay. We're going to go ahead and close hatch 2 and we can fit the module down and rework with it.

END OF TAPE

ASTP (USA) MC198/1
Time: 11:34 CDT, 52:14 GET
7/16/75

USA Okay. We're going to go ahead and close hatch 2 if we can flip the module down and rework with it.

CC-H Tom, Houston. One thing we think - one thing that we think just for precaution that would be a good idea is that at least one of you guys go ahead and put a mask on.

ACDR Okay. I got it - Vance and have got it right by our face here so there's no sweat to getting - you can see it.

CC-H And Apollo, Houston. TV cameras are getting kinda warm. We stopped the downlink of the TV on panel 181. We'd like to get CML and CM2 powers to OFF.

ACDR Roger. Got it coming in work now.

CC-H Okay, Tom. Thank you.

USSR Tom, (garble) pressure integrity check is okay.

ACDR (Roger. I understood you.)

USA Okay, Dick. It looks like it may be - may be anticipating a little bit. We first noticed it when Deke opened the hatch and went up in there.

CC-H Okay. Fine. We're talking about it but the best information is coming from you said just keep us posted.

ACDR Okay. It seems to have dissipated quite a bit after the initial jolt of the stuff and we're going to start that CM/DM atmosphere mixing and see what happens here.

CC-H Okay. Tom, stand by on that just a second please.

CC-H Apollo, Houston. Tom, one comment we'd like to make to you that it may very well not be a good indication to - the fact that the smell seems to be going away but because you just might be getting used to it as you stay longer. We'd like you to hold up on the CM, DM atmospheric mixing from now and let us think about it a little more and just continue on through the other parts of the checklist and please keep us advised.

ACDR Okay, understand, Dick.

CC-H Okay.

DMP We're back up there again and partial O2 is a little over 200, our total pressure is up about 260. And CO2 is about 4.7. So everything's looking pretty good right now.

CC-H Roger, Deke. I copied that on the ground.

DMP I just kinda standing by here to see if I feel any different but I'm feeling pretty good.

CC-H I understand.

DMP (Garble) Houston (garble) blue. Maybe that's what it is.

CC-H Roger, Deke.

SCDR Hello, Valeriy and me just now in the orbital module.

CC-H Apollo, Houston.

DMP Go ahead, Dick.

CC-H Okay. Here's what we suggest doing. We still got about 6 minutes left in this pass. First of all, we don't see anything wrong

ASTP (USA) MC198/2
Time: 11 34 CDT, 52:14 GET
7/16/75 ,

matter of fact, we see a benefit to continue on and doing the CM-DM mixing. We would suggest to Vance that we think looking at the checklist they'll probably be the last inconvenience to him would go ahead and put on the mask until we sort the whole thing out. Also, one thought is that the furnace sample that we took out this morning was rather warm when it was placed into D1. There is some Velcro in there that with glue as you know, it might be that - that might be a location of the smell. In any case, we think you ought to go ahead and start the CM-DM mixing and press on.

USA Houston, that sample wasn't removed this morning.

DMP We held off on removing it.

CC-H Okay. Roger. We can get straightened out on that here in a few minutes and at least we suggest Vance get on the mask and do the CM-DM mixing.

DMP Okay, I'm still in the DM, Dick. And I'm feeling okay now, no problem. And I don't know where our checklist down here but sample is still in the furnace. The furnace feels cold however.

CC-H Okay. If you'll give me a few minutes here at one of these up coming passes, we'll straighten that out. We're not worried about it at the moment. One other thing, Tom, is you might let Alexey know what's going on in Apollo. I'm sure he'd be interested. We have informed Moscow Control Center.

ACDR All right.

USA (Soyuz, this is Apollo. Now we have some a little problem. I think we have a somewhat of a bad atmosphere here. I think soon that we will no longer have any problems.)

END OF TAPE

ASTP (USA) MC199/1
Time: 11:44 CDT, 5224 GET
7/17/75

SPEAKER (- - we will no longer have any problems.)
ACDR Okay, Vance. (Garble)
CC-H Apollo, Houston. A couple of things. One is, we're picking up a big squeal we think it's probably the speaker box in the DM. If we could turn that off it would probably help the COMM a lot. Also, on panel 230, we'd like the up telemetry switch to up telemetry, that's center.
DMP Okay. That's in work.
ACDR The speaker box is off.
CC-H Okay. And Tom - -
ACDR - - intercomm is on the OT mask.
CC-H Okay. Real fine. Thanks a lot Tom. We heard you inform Alexey and we appreciate. We think, probably, the most likely explanation is - is that we've had the docking module closed up for 4 and a half hours and the smell has just built up a little bit. We don't anticipate a big problem at all. We are about 2 minutes from ATS LOS and I'll give you a call at Orroral Valley after just a couple of minute drop out.
ACDR Okay.
DMP Okay. Dick, let me give you some quick readings here while I got you.
CC-H Okay. I'm ready to copy Deke.
DMP Pressure latch system A, number 1 is 5.1. Number 3 is 5.1. Number 5 is 5.1. Number 7 is 5.1. System B, number 2 is 5.1. Number 4, the same. Number 6, the same. And so is 8.
CC-H Okay. Let me check them again, Deke. All of the system B meters were 5.1. Is that right?
DMP Everything is 5.1 Dick. Basically (garble).
CC-H Okay. Good show. Thanks, Deke.
DMP Roger.
DMP Have you got the pre dock readings down there so you can do your own subtraction? We'll do ours up here later.
CC-H Yep. Sure do.
USA (Soyuz, this is Apollo.)
USA (Soyuz, this is Apollo.)
USSR (Garble)
USA (Alexey, turn on your dual VHF simplex, please.)
SFE I have my simplex on.
USA (Thank you Valeriy.)
PAO This is Apollo Control. About a minute drop out here between ATS-6 satellite coverage and Orroral Valley tracking station in Australia. The Apollo crew has reported a strange smell in the docking module oxygen mask - as they don these masks. However; there is little concern here in the control room. The conjecture is that the docking module, having been closed off for the last 4 and one half hours, has probably accumulated a smell that might have come from one of the furnace samples being stowed next to some Velcro which might have scorched. And that smell accumulated in the docking module.

ASTP (USA) MC199/2
Time: 11:44 CDT, 52:24 GET
7/17/75

We should be acquiring at this time for the next six minutes through Orroral Valley. And we'll continue following the flight of Apollo/Soyuz.

CC-H Apollo, Houston. We're AOS Orroral Valley for 6 minutes and if you'll give us accept we'll start up linking high gain EMP.

USSR (Russian.)

CC-H Apollo, Houston. On panel 230 we need the up telemetry switch to direct.

SPKR (Russian.)

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

DMP Well you got us here. We've got the TV's activated in the DM and I guess you're supposed to tell us if you don't like where they're pointing.

CC-H Understand, Deke. You got the TV activated in the DM. I didn't copy the last.

DMP Most of them are up and ready but I'm supposed to position them per your directions.

CC-H Roger. And we'll get back to you. We are not down linking that TV here, Deke.

CC-H And Apollo, Houston. How are you reading me?

CC-H Apollo, Houston. Per the flight plan we would like to go ahead and commence the battery alpha charge.

USA Roger.

CC-H And Apollo - Apollo, Houston. One thing I did want to pass up to you at this pass, I'd like to correct my last that was an early comment to you. After talking to the surgeons we feel that the - that the smell as you - as the smell changes to your senses we think that is a very good indicator of how you're doing and before - we've got about two and a half minutes before LOS. We would - we'd like - we'd just like to know how you're coming along with the odor problem prior to LOS here at Orroral Valley.

DMP Okie doke I've been in the DM all the time here Dick, and I got both TV's you can look (garble) if anybody's interested but everything looks right now is - the smell is strongest towards hatch number 3 and - but it's not bad any more. It's not bothering me any at the present time.

CC-H Okay, Deke. It sounds real good. We're - we're not - incidentally the business on the TV - the way the flight plan was written, we would have had TV toward the end of the ATS pass but we got a little slowed down on the odor problem. So we'll catch up the pointing a little bit later.

DMP Okay. I'll just set them up - best I can (garble) you get them later.

CC-H Okay. Real fine.

DMP Okay,

CC-H And Apollo, Houston. We're one minute from LOS Orroral Valley. We'll see you at Quito at 53:01 and we'll be starting to uplink the high gain EMP there at Quito.

PAO This is Apollo Control.

END OF TAPE

ASTP (USA) MC200/1
Time: 11:54 CDT, 32:34 GET
7/17/75

PAO This is Apollo Control. Apollo successfully docked with the Soyuz spacecraft about 6 minutes prior to the premission flight plan time, with a ground elapsed time of 51:49, the capture latches had engaged and some 5 minutes later the secondary hooks had engaged for the hard dock. All of this took place at Central Daylight Time of about 11:25, I beg your pardon, about 11:15. Glynn Lunney, the ASTP technical director for the United States had a conversation with his counterpart in the Soviet Union, Professor Konstatin Bushuyev. The two directors exchanged congratulations with each other on a successful docking. As the docking module pilot, Deke Slayton and Apollo commander, Tom Stafford went into the docking module to begin preparing it for the first transfer, they detected a - an odor; unexplained odor, that smelled as Tom described it as an acetate smell. It's unexplained at this time, but no one here in the control center is particularly concerned about it; the conjecture is that since the docking module has been closed off for some 4 and 1/2 hours, the odor likely has accumulated from something like the furnace sample that was removed earlier in the day and stowed in one of the lockers in the docking module and perhaps scorched some Velcro - some Velcro tape that is used to restrain items stowed in the locks - in the locker. During Bushuyev and Lunney's conversation, Bushuyev did mention that Soviet leaders would converse with the Soyuz spacecraft crew at 22:23 Moscow time; this is some 7 minutes ahead of the call that's scheduled by President Ford to the Apollo crew. Actually, President Ford will speak to Stafford and Leonov; Leonov will be wearing Deke Slayton's headset so that he will be on the same communication circuit with the Apollo crew. Next station in 21 minutes at Quito, Ecuador and a brief dropout after Quito loss of signal; this will be the final Quito pass of the afternoon. Brief dropout and reacquisition for 55 minutes of continuous coverage and first transfer underway - preparations for the first transfer will be underway at that time and in the following revolution the Apollo commander and docking module pilot will move into the Soyuz. At 52:40 ground elapsed time, Apollo Control.

END OF TAPE

ASTP (USA) MC201/1
Time: 12:19 CDT, 52:59 GET
7/17/75

PAO This is Apollo Control. 53 hours ground elapsed time. We're 50 seconds away from reacquiring the docked Apollo and Soyuz spacecraft across the Quito, Ecuador, tracking station. Final Quito pass of the day. And - after a brief dropout, at Quito loss of signal, we'll pick up through ATS-6 satellite for 55 minutes of continuous coverage. 20 seconds and standing by.

CC-H Apollo, Houston, through Quito for 5 minutes.
Good afternoon.

CC-H Apollo, Houston, through Quito for 4 minutes.

DMP We read you 5 by.

DMP Just getting started on page 2-5, in the DM checklist.

CC-H Roger, Deke. We read that you're on page 2-5 of the DM checklist.

DMP Yeah. I'm just getting started on the top of that page.

CC-H Understand.

DMP We've gotten ourselves all confused here on what's going on with the furnace at this stage. We know the sample we put in originally *** it appears that somewhere along the line we should have had an update, or maybe got one and missed it, to take that sample out. But the fact is the first sample we got in there is still there. I did the helium injection procedure. I'm assuming that that sample will come out, when we put the -

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

DMP Read you 5 by, Bo.

CC-H Roger, Deke. We understand that you are in the DM starting on page 2-5 at the top and you had done the procedure and the helium injection.

USSR (Garble) problem.

ACDR (Garble)

CC-H But - we - you're cut off because of bad communication with the rest of your question about the sample.

DMP Okay. The sample that's in the furnace at the present is the sample that was put in originally. It's the only one that's ever been in it. It appears, somewhere along the line, it seems we should have taken that out of there, but we never did. And that was in our flight plan. We had to (garble) the furnace, and we must have missed that. So what I'm assuming we should do is, take that sample out and then (garble) we put the Soyuz sample in. Is that correct?

CC-H We'll check on that for you Deke.

DMP Normally that would have been sample SC001 coming out Soyuz. We never put that sample in.

CC-H Understand.

CC-H Apollo, Houston. Over.

DMP Go ahead, Bo.

CC-H Apollo, Houston. We would like you to take out that sample and when the flight plan calls for the placement of the Soviet sample into the furnace, we'd like you to do that then.

DMP Okay, we're cut out but I understand we should take out the 041 at the time we put the Soviet sample in.

ASTP (USA) MC201/2
Time: 12:19 CDT, 52:59 GET
7/17/75

CC-H Apollo, Houston. We're about 30 seconds from LOS
and we'll see you at MILA at - 50 - -
DMP Okay. You cut out on us, Houston.
CC-H We'll see you at - at Bermuda at 53:11.
DMP Understand. Bermuda at 53:11.
CC-H Apollo, Houston, through Bermuda for a few seconds
and then we'll be going ATS, over.
DMP Okay, Bo. Reading you 5 by.
CC-H Roger, and - in the command module, we would like
on panel 181, the command module cameras 1 and 2 TV power to ON.
ACDR Stand by.

END OF TAPE

ASTP (USA) MC202/1
Time: 12:31 CDT, 53:11 GET
7/17/75

CC-H Command Module Pilot, Houston. Do you read?
CMP Roger. Not in a position to do that, because of
- we're kind of crowded in here. It'll be just a moment, though, and
we'll do that for you. Understand - power for cameras 1 and 2 ON.
CC-H Roger. And on panel 230 - we'd like - you to verify
that the UP TELEMETRY switch is in the center - UP TELEMETRY position.
CMP Stand by.
USSR (Russian)
CC-H And Vance, if you have a chance, we'd like the
computer in ACCEPT.
USSR (Russian)
CMP Okay, Bo. Stand by one. Okay, we put the switch
UP TELEMETRY in the center position for you. It was not there before.
USSR (Russian)
CMP And, believe it or not, I can't quite reach the UP
TELEMETRY switch, now. Stand by one.
CC-H Say that again, Vance, please.
CMP We're moving our (garble) just a second.
CMP Okay. Panel 2 UP TELEMETRY switch coming on.
USSR (Russian)
CMP Okay. UP TELEMETRY switch to UP TELEMETRY now.
CC-H Roger. Thank you.
USSR (Russian)
USSR (Russian)
USSR (Russian)
CC-H Apollo, Houston. We're standing by for ATS acqui-
sition.
ACDR Okay, Bo.
CC-H Apollo, Houston through ATS. How do you read?
DMP Houston, Apollo. How do you read?
CC-H Deke, we read you well.
CC-H How do you read us?

END OF TAPE

ASTP (USA) MC203/1
Time: 12:40 CDT, 53:20 GET
7/17/75

CC-H Apollo, Houston through ATS. How do you read?
CC-H Apollo, Houston. We cannot understand you. Very
garbled.
USA (Garble)
USA (Garble)
CC-H Apollo, Houston through Madrid. How do you read?
CC-H Apollo, Houston through Madrid. How do you read?
USA (Garble)
USSR (Russian)
PAO This is Apollo Control. Some difficulty here in es-
tablishing communications with Apollo and Soyuz through the ATS-6 satel-
lite. While that's being sorted out, we have the following announcement.
The Soviet ambassador to the United States, Anatoliy Dobrynin will meet
with newsmen in the JSC main auditorium at 01:15 Central Daylight Time.
To repeat; Ambassador Dobrynin will meet with the newspeople covering
ASTP in the main JSC auditorium at 01:15 Central Daylight Time.
USA (Garble)
CC-H Apollo, Houston. We heard you once about 30 seconds
ago; how do you read us?
USSR (Russian)
CC-H Apollo, Houston through Madrid. How do you read us?
CMP Houston, Apollo. How do you read, us?
CC-H Roger. We read you now well.
CMP Houston, Apollo. How do you read?
CC-H Apollo, Houston. We read you well. Could you tell
us what your comm problems are?
CC-H Apollo, Houston. We seem to be getting data; per-
haps we can also speak. How do you read?
USA (Garble)
CMP Houston, Apollo. How do you read ?
CC-H Apollo, Houston. We seemed to read you okay that
time; how do you read us?
CMP Loud and clear. And we had a whale of a time
locking on, Bo, and we've had a lot of background noise from ground fre-
quencies; so, we're locked on and we turned off VHF-FM again.
CC-H Roger. Thank you.
ACDR Okay, Bo, if you're reading, we've about completed
step 7 here - -
CC-H Understand. You've completed step 7 in docking mod-
ule checklist.
ACDR Yeah, except we got one problem here. We don't know
where the ZFF sample is that's supposed to be in the DSP to go to the
Soyuz.
CC-H Deke, would you say that again, please. You were
cut out.
DMP Yeah, we're supposed to transfer a ZFF to the Soyuz;
number 1A or AS1. We don't know where that thing is.

ASTP (USA) MC203/2
Time: 12:40 CDT, 53:20 GET
7/17/75

CC-H Roger. I'll check with FAO.
DMP Thank you.
CC-H Apollo-Soyuz. The REFSMMAT is not onboard yet, so
we request you do not do the P52 yet.
CMP Understand.
CC-H Command module, Houston. Over.
CMP-CM Houston, command module. Roger. I understood and
I'm holding on.
CC-H Roger. And we know you were busy before and we'd
like to check if you had a capability to turn that CML and 2 TV powers
ON?
CMP-CM Okay. I think somebody did it for me, but let me go
down and recheck.
CMP-CM Okay, Bo. They should be ON now.
CC-H Roger. And on panel 3, we would like S-BAND NORMAL
POWER AMP HIGH-LOW switch to OFF; that's center.
CMP-CM Please repeat. You were cut out by the ground sta-
tion.
CC-H Roger. That is the - on panel 3, S-BAND NORMAL POWER
AMP HIGH-LOW switch to OFF; center.

END OF TAPE

ASTP (USA) MC204/1
Time: 12:50 CDT, 53:30 GET
7/17/75

CC-H Docking module pilot, Houston.
DMP Go ahead Bo.
CC-H We have a good picture of you Deke and an answer to your question is that the the D - ZFF photos should either be on the bulkhead right off the optics where they're positioned for the photos or you'll find them in R5.
DMP Okay. We've got two up there on the bulkhead that we're - we've been running with. Are we supposed to transfer one of those to Soyuz.
CC-H Roger. One of those is supposed to go to Soyuz.
DMP Okay. There wasn't any label on it so we weren't sure what - just - either one of them, huh?
CC-H Roger. Either one.
DMP Okay, fine.
CC-H Command module, Houston. We would like you to go to accept so we can load the REFSMMAT
CMP You've got it.
CC-H Thank you.
CC-H Apollo, Houston. We have the REFSMMAT in. You can go back to BLOCK and do the P52.
CMP Roger, Bo.
CC-H Roger, Vance.
CC-H Apollo, Houston. On that master alarm we're looking at an O2 tank pressure that is low.
CMP Roger. O2 tank pressure.
CC-H Yeah Bo. We have a - an indication of a full scale low on number 2.
CC-H Roger, we agree.
CMP (Garble) Houston. We have VHF/FM back on again now that we've passed the noisy area.
CC-H Roger. I understand you put the VHF/AM back on.

END OF TAPE

ASTP (USA) MC205/1
Time: 13:01 CDT, 53:41 GET
7/17/75

CC-H Apollo, Houston. The O2 tank pressure now agrees
with tank number 1, and so the transducer is working again.
CMP Now, that's interesting isn't it.
CC-H Roger.
CC-H Command Module, Houston. We're going to dump data
so we'll have voice loss here for a few seconds.
USA Understand.
SPKR Hear that. Okay.
CC-H Command Module, Houston. Over.
CMP Rog, Bo. We're delaying the P52 a little
bit here, until we get squared away a little better, all (garble).
CC-H Roger. Understand. You're delaying the P52 a bit,
and we would like you to check the SM RCS engine package heaters and
verify that they're all on up into the number 1.
CMP About the time of docking, I turned them all off,
because we were getting lights on all quads and - reported the
lights, turned them off, so we'll get them back on for you.
CC-H Roger. Understand you turned at about (garble).
CMP Roger. Temp was going up above 200 on all of them
at that time.
PAO This is Apollo Control. The press conference with
Soviet Ambassador, Anatoli Dobrynin, will begin in approximately 5
minutes in the JSC auditorium. The Apollo Soyuz air-to-ground
accumulated during that time during the remainder of this ATS-6
satellite pass will be recorded for delayed playback at the conclusion of
the Ambassador's press conference. To repeat, the press conference
with Ambassador Anatoli Dobrynin will begin in approximately 5
minutes in the JSC main auditorium.
CC-H - information. Not had the chance to get the high
gain ENP into the computer yet.
ACDR Rog. Understand.
USSR (Russian)
USSR (Russian)
USSR (Russian)
ACDR Bo, we just had a master alarm for the cryo
pressure.
CC-H Roger. Tom, understand. Cryo pressure, master
alarm.
ACDR Have you got telemetry, Bo?
CC-H Negative. We have playback data right now.
ACDR (Garble.) Okay it went on about 53:48:30.
CC-H Understand 53:48:30's for that time of the
alarm.
ACDR Yeah, about 45 seconds ago.
CC-H Roger.

END OF TAPE

ASTP (USA) MC206/1
Time: 13:21 CDT, 54:01 GMT
7/17/75

CC-H Apollo, Houston. Over.
ACDR Go ahead. Go ahead, Bo.
CC-H Roger. We'd just like a progress report on how the preparations for the transfer are coming before we go over the hill here.
ACDR Well, we're in good shape; we're ahead of schedule, just waiting around to sync the clock at - Deke'll sync the clock at 54:11.
CC-H Real fine.
DMP Bo, I'm just sneaking one minor mod to your procedures down there. I've got enough hose here in the DM to do the time sync right down here in the LEB (garble) messing around; coupling and uncoupling.
CC-H Say again, Deke. We did not understand what you said.
DMP Okay. I'm going to stay connected to the DM and do the time sync from the LEB mission timer connected to the DM comm.
CC-H Understand. You're going to stay connected into the DM and do the time sync from the LEB.
DMP Roger.
CMP Bo, CP. Last time we had a hard time locking up with the ATS. Do you have any idea what was wrong and should we expect any more problems?
CC-H Let me check on that with INCO.
CC-H Vance, Houston. We don't have any good reason for the ATS not locking up and all we can suggest is try the normal procedure again.
CMP Okay.
CC-H Hello, Vance, Houston. Over.
ACDR Houston, Apollo.
CC-H Go ahead, Tom.
PAO This is Apollo Control. Loss of signal through ATS-6 satellite and Orroral Valley. Next station, 27 minutes away will be the Merritt Island Launch Area Station and overlapping coverage again with the ATS-6 satellite. Just prior to the press conference by Soviet Ambassador Anatoli Dobrynin, there was a caution and warning alarm aboard the spacecraft for the oxygen cryogenic tank; low pressure warning. The conjecture here in the Control room is that it's an onboard instrumentation problem and the Environmental Engineer that watches the spacecraft systems is not concerned at this time about it. He's convinced it is an instrumentation problem. We have about 3 and 1/2 minutes of air-to-ground that was recorded during the Ambassador's press conference which we will playback at this time.
CMP Houston, Apollo. If you're watching our computer, we're just (garble) P52 to option 3.
CC-H Vance, we're having playback data right now, so we're not seeing your P52.
CMP Right.
ACDR Bo, do you want me to read the data to you on the P52?

ASTP (USA) MC206/2
Time: 13:21 CDT, 54:01 GMT
7/17/75

CC-H Roger. Please do. We only are receiving playback data.

ACDR Okay. Star 35, number 1; 37, number 2; 905, 4 balls 1; 93, plus 50, minus 20, minus 7. Torqued 53, plus 50, plus 35. Over.

CC-H Understand. Stars 35 and 37, 4 balls 1, plus 50, minus 20, minus 7, 53, 50, 35. Thank you.

ACDR Roger.

CMP And we're ready to proceed with the option 1 and we'll report that.

CC-H Roger.

ACDR Bo, do you want to copy on the - on the option 3?

CC-H Roger. Go ahead with the option 3.

ACDR Okay, I'm sorry. I gave you option 3 first; this is the option 1; the realign of the orbital orientation. Same stars 35, 37; 905, all balls; NOUN 193, plus 191, plus 165, plus - plus 37. That was torqued at 53, plus 54, plus 15. Over.

CC-H Understand. The option 1: star 35, 37, all balls, plus 191, plus 165, plus 37; 53, 54, 15.

ACDR Roger.

CC-H Apollo, Houston. I have a message for you all. Are you ready to copy?

ACDR Go ahead.

CC-H During the first transfer, just after the acquisition of Soviet TV and just after Tom enters the orbital module - Deke will still be in the DM - the Soviet leaders would like to pass a message to the crews of the Apollo-Soyuz mission.

ACDR Very fine, thank you.

CC-H I've got more. Immediately after - -

ACDR Go ahead.

CC-H Immediately after they have finished their message, bring the camera into the OM and set it up as planned. The AC and the DP will take positions around the OM table and the President of the U.S. would like to relay a message to the commanders of both vehicles. The sequence will be that all will get into position and allow the commander of the Soyuz to welcome you to the OM; the President will then speak. The docking module pilot is requested to give his headset to the Soyuz commander so the President may speak to the Soyuz commander.

ACDR Okay. We think we got that.

CC-H Roger.

PAO This is Apollo Control. That completes playback of the accumulaede tape recorded during the Soviet ambassador's press conference. We're 22 minutes away from reacquisition at Merritt Island Launch Area. The preparations underway now for the first transfer and the intial greetings between the Soyuz crew and the Apollo commander, Tom Stafford, and docking module pilot, Deke Slayton; and greetings also from President Ford voiced up to the crew and Soviet leaders from Moscow. We'll return in 22 minutes at Apollo - and Apollo-Soyuz ground elapsed time of 54:16, this is Apollo Control.

END OF TAPE

ASTP (USA) MC207/1
Time: 13:58 CDT, 54:38 GET
7/17/75

PAO This is Apollo Control 54:37 ground elapsed time. We have acquisition through Merritt Island Launch area at this time of Apollo and Soyuz as they prepare for first transfer. We're standing by here for resumption of communications as spacecraft communicator, Karol Bobko, makes the call to the crew.

CC-H Apollo, Houston, through MILA over.

CMP Loud and clear, Bo. How do you read?

CC-H We would the UP TELEMETRY switch to direct on panel 230.

CMP UP TELEMETRY direct. Roger.

CC-H And while your down there, Vance, the other things about panel 400, we would like the VTR power switches to TELEMETRY, inter lever, and VIR all for the ON position.

CMP Okay. You were cut out. Please say again. VTR position, VTR power?

CC-H Roger. Three VTP power switches on the right - on the left hand side all on the ON position.

CMP That's verified.

CC-H Thank you. And Apollo, could you give us a progress report in the ACDR transfer?

USA Yes, Bo, if you're reading we've - we're on step 19 but actually we've also completed 20 and 24.

CC-H I understand. You're on 19 but you've done 20 and 24 as well.

ACDR That's right. Except the last part of 24. We'll do (garble) configuration.

CC-H Go ahead. And Command Module, Houston. On panel 230, we would like the UP TELEMETRY switch to UP TELEMETRY.

USA UP TELEMETRY switch to UP TELEMETRY. Roger.

CC-H And Apollo, we show the spacecraft in free at the present time.

USA Roger. Back to CMC auto.

CC-H Thank you.

USA And would you like a maneuver back, Bo, to the just right attitude?

CC-H Roger.

USA Say the angles you'd like, Bo. Roll, pitch, yaw.

USA (Russian)

SCDR (Garble)

USA (Russian)

CC-H Go ahead.

USA (All right. We too.)

CC-H Docking Module, Houston. Could you tell us if the portable light is on? We're getting a picture that's a bit bright.

ACDR Negative, it's not, Bo. We've got it set up to turn it on but we haven't got it on.

CC-H Roger. I understand. It is not on at this time.

ASTP (USA) MC207/2
Time: 13:58 CDT, 54:38 GET
7/17/75

USA (Soyuz, this is Apollo. What is your step 19? Is
step 19 in normal? How many minutes please?)
USSR Apollo, Soyuz. Over.
USA Over
USSR (Garble) Step number 19 is completed.
USA (Russian)
USSR Roger.
USA (Soyuz, this is Apollo. Now our step 20 is completed.)
USA Do you have a good lock up on the ATS?
USA Houston, Apollo.
CC-H Apollo, Houston. Go ahead.
USA Bo, do you have a good lockup on ATS now?
CC-H Roger. We're reading you but you have a bit of an
echo.
USSR (Garble) tunnel 2, Soyuz.
USA (Say again, please.)

END OF TAPE

ASTP (USA) MC208/1
Time: 14:08 CDT, 54:48 GET
7/17/75

USSR - - tunnel 2, Soyuz.
ACDR (Say again, please.)
ACDR (Soyuz, this is Apollo. We're doing 21. Over.)
ACDR Houston, Apollo. We've completed step 20, and they're working on step 21.
CC-H Roger. Understand. You've completed step 20.
ACDR Roger.
CC-H And Tom - We've got a picture of you right there, to the right of the hatch. Looks fine.
ACDR Okay. He's got (garble).
DMP Yeah.
CC-H Deke, we had a picture of you, there - in front of the TV - and may we suggest you move to the right or the left of it.
ACDR You talking to me?
CC-H No, that was to - the docking module pilot. Tom, yours looks just fine.
ACDR You want to get your (garble)
DMP I didn't hear your message there, Bo. Okay. He's talking about that camera. Oh.
ACDR Yeah.
DMP Oh! Okay. You didn't like the picture you had on the other one, eh? (Laughter) We can't fix that.
ACDR Okay. It's 37 easing at 40, right now.
DMP Darn. Got to perform a (garble) right here.
ACDR (Soyuz, this is Apollo. Now hatch 4 is open. Over. Roger. Roger.)
MCC-H All right, go ahead, ENCO.
MCC-H Negative.
ACDR Oh, okay.
DMP Hey, I can hear it.
ACDR (Hatch 4 is open. We are now equalizing the pressure between the docking module and the Soyuz.)
MCC-H CAP COMM. Let's tell them we're not hearing any Soyuz clear remarks right now. We were a little while ago.
ACDR I didn't hear you transmit.
DMP Yeah. Opening.
ACDR (Is it open?)
CC-H Apollo, Houston. We're not hearing the Soyuz relay at this time.
ACDR Okay. We think they said hatch 4 is open. But we're standing by to confirm it.
DMP Roger, Bo. Let's give it a check.
ACDR (Soyuz, this is Apollo. Hatch 4 is open.) Some-thing's shaky.
CMP Okay, Bo. The configuration looks good.
CC-H We copy, Vance.
ACDR Oh hell, that's Vance, thrusting.

ASTP (USA) MC208/2
Time: 14:08 CDT, 54:48 GET
7/17/75

DMP I don't know.
CC-H And, Vance.
ACDR (Soyuz, this is Apollo. Is your step 22 finished, completed? Over.)
CC-H Vance, on panel 10 - check that the phone-mike interconnect is on and the FM's on.
DMP I think that's those guys shaking around there.
CMP Okay. The phone mike inter--connector is on. The F - VHF FM is on receive. And the setting's about 5.
ACDR We're running a couple of minutes behind (garble).
CC-H Thank you.
ACDR How's that pressure?
DMP Well, it's staying right there. Looks like they're having trouble with their hatch.
ACDR Yeah.
CMP (Soyuz, this is Apollo. How do you read me?)
USSR Hey, Tom, hatch 4 is open, open.
ACDR (Roger.)
DMP (All right.)
ACDR (We're now working on step 23, and we are equalizing the pressure between the Soyuz and the docking module.)
CMP Deke?
DMP Go ahead, Vance.
CMP Did you want panel 6, mode to VOX for (garble) activity?
ACDR Okay. It's open, Deke. That's enough. It's open.
DMP Yeah - Oh, (garble). We might have missed a step here, in - -
CMP We sure did.
DMP - - the comm configuration, Tom.
ACDR Hold it. Just a second.
CMP Okay. You got it. How's that?
DMP (Garble) when we step his.
ACDR Where in the heck was that?
DMP (Garble) the TV camera thing?
USA Okay. Let me put it to VOX.
CC-H Docking module pilot, would you move to the right a bit, so we can see the picture?
DMP Roger.
CC-H Thank you.
DMP Oh - somewhere.
ACDR Watch - back, back, back, back.
CMP It's right around - prepared Apollo TV.
ACDR It's back one more step.
DMP I think it was - tell him it's around 41 minutes. I don't think we're - do it yet.
CMP Okay.
DMP It's - just keep ahead.
CMP I see - the time is -
DMP Yeah, it was here. Yeah. Right.

ASTP (USA) MC208/3
Time: 14:08 CDT, 54:48 GET
7/17/75

CMP Okay.
DMP Okay.
CMP About 52, I guess.
ACDR Okay, here we go. Now ask him to do it.
DMP Okay. But we got the valve open?
ACDR We got the valve open.
DMP Okay.
CC-H Apollo, Houston. We're still not reading Soyuz
comm, but we are reading you hot mike.
ACDR Okay.
DMP Okay, Vance. Now, on panel 6, MODE to VOX.
CMP Okay, VOX is - -
DMP (Garble) sensitivity is required - approximately 7.
CMP Okay.
DMP On panel 98 - thumbwheel volume down to eliminate
the squeal.
CMP Okay. You got it.
DMP Great. Okay, that did it.
ACDR (Soyuz, our step 23 is completed. We are now work-
ing on step 24.
DMP Yeah. We're through with that, too, Tom.
DMP Right here. 25. (Garble.) open. let me get the
light on.
ACDR (Garble.)
DMP (Garble.) Camera. Yep. We're right on
schedule. Okay, their.
ACDR Okay. Go to unlock.
CMP The camera is running.
DMP Okay.
ACDR Right on schedule.
DMP (Garble) hatch opening.
CC-H Deke, Houston. We're not hearing Soyuz. Can you
hear them all right?
DMP Well, we're not hearing them, Bo.
CMP (Soyuz, how do you read? I am ready to open hatch
3.)
CC-H We don't hear them down here.
DMP Deke. You reading us, Bo?
CC-H We read you, Deke, loud and clear. But we do not
read Soyuz.
DMP Okay. We're not reading them much either.
ACDR We - we can read them.
USA-MS A little bit.
CC-H Understand.
DMP Things are looking okay down there, Bo?
CC-H We've got a great picture of Tom and the hatch.
ACDR (All right Okay. I am opening hatch 3.)