ASTP (USA) MC50/1
Time: 14:31 CDT, 19:31 GMT
7/15/75

LCC This is Apollo Saturn Launch Control. We're T minus 13 minutes 24 seconds, and counting. We resumed our count after that short hold at 15 minutes, and everything continuing to proceed well. All activities in the spacecraft going on time, and launch vehicle essentially ready at this point. T minus 13 minutes and counting. This is Kennedy Launch Control.

LCC This is Apollo Saturn Launch Control. We've passed the 10 minute mark in the countdown. We do have one more hold. That's for 5 minutes, 24 seconds duration, and that will come at the four minute mark. Let's stand by now and listen to the astronauts as they're finishing up their checks in the spacecraft.

LCA Pressure measurements, in the common reservoir. I don't think they can tell that is the common. I feel I have that in each - -

LCC Astronauts now finishing up. They're making some final checks of the switches. We mentioned earlier some 566 switches, 40 event indicator, indicators and 71 lights in that spacecraft, so they have quite a bit of checking to do in their final preparations. Now T minus 7 minutes, 52 seconds, and counting. This is Kennedy Launch Control.

END OF TAPE

AVTP (UHA) MC51/1
Time: 14:17 CDT, 19:17 GMT
7/15/75

LCC This is Apollo Saturn Launch Control. We've just passed the six minute mark in the countdown. Tom Stafford just indicated that to tell the orbiting Soyus crew to get ready for him, we'll be up there shortly. Stafford and the rest of the crew will go on the Astro comm launch circuit at the T-minus four minute mark. They'll be isolated from the other circuits on the intercom system. They'll be able to listen to Skip Soffin, the test conductor - the spacecraft test conductor. Karol Bobko, who is the astronaut communicator here in the firing room, and Paul Donley, the launch operations manager. At the T-minus five minute mark, the swing arm - swing arm number nine will come back to the fully retrack position and it will remain in the fully retrack position through the launch period. The countdown has been proceeding smoothly that swing arm came back to the stand-by position a little bit late. We expect it to move back to the fully retract position on schedule. Approaching the five minute mark in the countdown. Mark T-minus five minutes. T-minus five minutes continuing to count. We will have one more planned hold period. That will come at the T-minus four minute mark. Swing arm number nine now coming back to the full retract position and it will remain there until - through lift-off. T-minus four minutes, 43 seconds and counting. Everything going well. Let's listen to the spacecraft.

SPKR When the platform torque?
ACDR Roger. (Garble) torque (garble).
SPKR Say again.
ACDR (Garble)
SPKR Let's wait until the torque's over.
SPKR The torquing is complete.
SPKR Okay. Tom, go ahead and aline the GDC to the IMS.
ACDR I'll align the GDC to the IMS.
SPKR 45 LCT.
LCC We are approaching that hold period now at the T-minus four minutes. Mark T-minus 4 minutes and holding.
SPKR Right on time.
LCC Five minutes and 24 seconds- -
ACDR Okay. GDC is alined right on.
LCC - - just as planned, we're still looking for a lift-off of 3:50.
SPKR (Garble)
LCC T minus 4 minutes, and in a planned hold, this is Kennedy Launch Contro
ACDR (Garble)
SPKR Very good.
LCC This is Apollo Saturn Launch Control. We're T-minus three minutes, 52 seconds and counting. Everything proceeding smoothly at this time. Launch operations manager Paul Donley checked in with the crew on the astro comm launch circuit. Said "Apollo, this is the launch operations manager. Tom, Deke and Vance, the launch team wants you to know, we saved the best till last. Good luck and God speed." And astronaut Sla - Stafford said, "Thank you all so much, thanks for everything." Countdown continuing smoothly at this point. We'll be going on the automatic sequencer at the T-minus three minutes seven

second mark. We're approaching that time at this point. Once we get on that automatic sequencer, all actions in account will be handled automatically by the sequencer. Mark T-minus 3 minutes, 7 seconds and the launch sequence has started.

SPKR Three minutes and counting.

LCC Each sequence now must take place at the right time and in the proper sequence or it would be automatically cut off. We would get an automatic cut off in the countdown. That did occur once on Apollo 17 where we had a cutoff at the T-minus 30 second mark. T-minus 45 minutes and counting - T-minus 2 minutes, 45 seconds and counting. Everything continuing to move well. One of the first actions taken by the sequencer was (garble) the liquid hydrogen and liquid oxygen propellant. We'll be pressurizing those tanks at this point. They're pressurized to ensure a smoothe flow of fuel down to the engines during the powered phase of flight. The second stage LOX tank has now been pressurized, and the first stage fuel tank has been pressurized. We should have pressurization on all fuel tanks by the 30 second mark in the count down. We're approaching the 2 minute mark at this point. Approaching the two minute mark in our countdown. Everything's continuing to run smoothly.

SPKR Minus 2 minutes and counting.

LCC Mark T-minus two minutes and counting. Vents are coming closed now, tanks being pressurized. At 1 minute, 25 seconds we'll look for a second stage fuel tank to be pressurized. We have a large status board here in the firing room which shows these events as they are taking place. The first stage fuel tank now pressurized. T-minus one minute, 40 seconds. At the T-minus one minute, 15 second mark in the countdown - -

SPKR Minus 1:30.

LCC Astronaut Deke Slayton will put two (garble) in the spacecraft to bring the spacecraft batteries online. These batteries will give added electrical power and also are backup to the fuel cells. At the one minute mark the water will start pouring on to the flame deflector underneath the pad and at 30 seconds we'll get water on the mobile launcher deck itself. Deke now has brought those batteries online. T-minus one minute, six seconds. The last action performed by the crew will be at T-minus 45 seconds - -

SPKR Minus 1 minute.

LCC - - and at that time, Tom Stafford will make a final guidance alinement. T-minus 55 seconds - -

SPKR Minus 1 minute.

SPKR (Garble) comm off and increase your VHF.

END OF TAPE

AGTP (USA) MC52/1
Time: 14:49 CDT, 00:01 GET
7/15/75

PAO - -seconds, we'll be getting switched to internal power shortly. All the tanks now pressurized and we're switching to internal power. Starford reports he has made the final GDC alines. First stage, second stage and instrument unit now on internal power. Approaching the 30-second mark in our countdown, water pouring onto the flame deflector, now coming onto the deck of the mobile launcher. Everything proceeding smoothly. We'll get a guidance release at the 17 second mark. The engines will actually start - engine sequence starts at 3.1 seconds in the countdown. We'll hold down till thrust builds up. Engine ready light on, 10, 9, 8, 7, 6, 5, 4, 3, 2, engine sequence start, 1, 0, launch commit. We have a lift-off. All engines building up thrust. Moving out, clear the tower.

ACDR Roger, tower clear.

CC-H Roger, Tom. You got good thrust in all engines. You're right on the money.

ACDR Roger, I got roll program started, but not much.

CC-H Roger, Tom.

ACDR Now she goes in pitch program, a little shaky lift-off, but it's as smooth as silk (garble).

CC-H Okay.

PAO Saturn launch vehicle beginning a 45 second maneuver to the proper roll. Trajectory looking good.

ACDR Thirty seconds and we're on the way.

CC-H Roger, Tom. You're looking real fine.

PAO Coming up on 1 minute, we're clear of the beach.

ACDR Roger.

PAO Apollo now 3 miles in altitude. One mile down range.

CC-H Stand by for mode 1 bravo. MARK. 1 bravo.

USA One bravo, two g's.

CC-H Roger.

USA And cabin pressure's coming down.

CC-H Roger.

PAO Cabin pressure relieving as expected. Coming up on the region of maximum dynamic pressure. And we're still - we're through MAX Q, everything's still looking good.

CC-H (Garble) on your way.

ACDR Roger. (Garble).

PAO One minute, 30 seconds, still looking good. Six miles downrange.

ACDR (GARBLE)

CC-H Roger.

ACDR (GARBLE)

USA (Garble) we have an SM RCS-A light on.

ACDR Roger.

CC-H Apollo, Houston. You're mode 1 charlie.

ACDR Roger. 1 charlie, Dick.

ASTP (USA) MC52/2
Time: 14:49 CDT, 00:01 GET
7/15/75

CC-H That's affirm.
ACDR Three and a half.
PAO And Pete Frank getting a status for staging. Go for staging.
CC-H Houston, you're go for staging.
SPKR All right. Go for staging.
PAO And we have a report that we are losing some data here in the control center.
ACDR (Garble)
PAO And we've lost data from the command module computer. That trajectory still looking good.
CC-H Roger, Tom.
ACDR Okay, and the light is out on the 4B.
CC-H Roger.
ACDR We got acceleration.
CC-H Roger.
CC-H Apollo, Houston. We've had a PU - PU shift and thrust is up on SIVB, looking real fine. Right on the money.
ACDR Roger, Dick.
PAO Cap Com Dick Truly, advising the crew that everything looks good on the Saturn second stage.
ACDR (Garble) there she goes.
CC-H Roger. Tower (garble) and your mode - -
PAO And the launch tower no longer needed. Tower has been jettisoned as planned.
ACDR Okay, we got the steam running (garble).
ACDR Guidance is initiated.
CC-H Roger. Concur.
PAO 50 miles in altitude now, 80 miles down range. Guidance looks very good at this point. The command module computer data is intermittant now and everything looks good. 3 minutes, 30 seconds now, 108 miles down range, 59 miles in altitude.
ACDR 3:30 onboard, trajectory looks good, Dick.
CC-H Roger, Tom. Concur, you're looking real good.
ACDR Roger.
CC-H And, Tom, be advised we have been dropping out CMC data a little bit here on the ground but the CMC is go; you're doing fine.
ACDR I understand.
PAO Booster says everything's going very well. A velocity building up to 9,000 feet per second now. About 30 percent of that required for minimum orbit.
ACDR Caution warning on SM RCS-A any more.
CC-H Roger, Vance. I copied that. Thank you.
CC-H Apollo, Houston. Coming up on 4 1/2 minutes. You're go and, Vance, we think that was that a package temp that was low It's coming up within tolerance now and you're looking fine.

ASTP (USA) MC52/3
Time: 14:49 CDT, 00:01 GET
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CMP Okay, fine.
ACDR 4:30 back to one g acceleration and looking good, Dick.
CC-H Roger.
PAO Apollo now approaching 200 miles downrange, 76 miles in altitude. Everything looks very good trajectory wise. And we have about 5 minutes remaining in this burn on the second stage.
CC-H Apollo, Houston. It's 5 minutes, you're go.
ACDR Roger. Five minutes, looks good onboard, Dick. And we'vegot some beautiful sights.
CC-H Roger. Wish I could see it.
ACDR Roger. Man I tell you, this is worth waiting 16 years for. Got a beautiful (garble) here, Dick.
CC-H I believe it.
CC-H Roger. I believe all of that.
PAO 83 miles in altitude now, 280 miles downrange, trajectory very good.
ACDR Okay, 5:30 onboard trajectory looks beautiful.
CC-H Roger. Concur, Tom. You're right on the money.
PAO 5 minutes, 45 seconds. Flight Director Pete Frank getting another status report around the room and everything looking good.
CC-H Apollo, Houston. You're right on at 6 minutes, you're go.
ACDR Roger.
PAO 3 minutes, 40 seconds remaining in this burn. The launch vehicle continuing to pick over - pitch over and pick up speed rapidly. Thirteen thousand feet per second is the current velocity.
CC-H Okay, Deke. Thank you.
PAO Coming up on 7 minutes. Bouster says we look just fine.
CC-H Apollo, Houston. It's 7 minutes, you're go and we're standing by to watch the gimbal motors.
ACDR Roger. Starting the gimbal motors. Pitch 1 on. MARK it.
USA That's a good one.
ACDR Yaw 1 on. MARK it.
USA That's a good one.
ACDR Pitch 2 on. MARK. Yaw 2 on. MARK.
USA Both good.
CC-H Apollo, Houston. You got four good gimbal motors and the trims are great.
ACDR Okay, real fine. Thank you Houston.
CC-H Roger.
PAO Cap Comm, Dick Truly, advising the crew they got four good gimbal motor - gimbal motors on the SPS system.
ACDR - -like a PU shift, Houston.

ASTP (USA) MC52/4
Time: 14:49 CDT, 00:01 GET
7/15/75

ACDR 7:49.
CC-H Roger, Tom.
CC-H Apollo, Houston. You're go at 8 minutes and you're right, that was PU shift and the thrust is go. You right on.
ACDR Roger. Everything looks good onboard.
PAO The Saturn vehicle shifting its mixture ratio for maximum utilization of propellants. And Flight director Pete Frank getting the advisory that we look right on. Everything looks good. Coming up on 8 minutes, 30 seconds and still looking good.
ACDR 8:30 and trajectory looks good onboard.
CC-H Roger. Concur, Tom. You're go.
PAO 730 miles downrange, 86 miles in altitude, targeted for an orbit of 93 by 104. And coming up on 9 minutes now, looking very good.
ACDR
CC-H 9 minutes, Apollo's go.
Roger. It's 9 or minutes - at 9 minutes you're go.
ACDR Roger.
PAO Predicted cut off in about 40 seconds.
CC-H Now we're predicting a guided cut off at 9 plus 46.
ACDR Roger. 9 plus 46.
CC-H Stand by for mode 3 alpha.
ACDR Roger.
CC-H MARK. Mode 3 alpha.
ACDR Roger. 3 alpha.
PAO Standing by for shut down.
CC-H Stand by for mode 4 capability.
ACDR Roger.
CC-H MARK. Mode 4 capability.
ACDR Roger.
USA Flicko.
CC-H Roger.
USA And we're right in there.
ACDR We're in there.
USA We is here.
CMP Okay V125649. E stop minus 4, altitude 83.2.
CC-H Okay, Vance. Thank you.
CMP We're according to the computer in an 89.4 by 83.1.
CC-H Okay, thanks, Vance. We'll check it ourself.
USA (Russian)
PAO And the flight dynamics officer says the command module computer confirms nominal orbit and we're checking that on the ground.

ASTP (URA) MC52/5
Time: 14:49 CDT, 00:01 GET
7/15/75

CC-H Main safety system has been safed and you're in a go orbit.
ACDR Roger. And it does look beautiful up here.
CC-H Apollo, Houston. In about 30 seconds we're going to have LOS from Bermuda so we'll lose S band, but we'll keep you on VHF in Newfoundland.
ACDR Roger.
USA Okay.
CMP Okay, and Houston, could you double check Batt B. I'm not sure (garble).
CC-H I'm sorry Deke, you're going to have to say again please.
CMP Batt bus B. (Garble) off of the Batt bus tie I'm still showing some amperage. Could you guys confirm (garble).
CC-H Roger, Deke. You're okay. That amperage from the EDS and when the - down at the bottom of the list, when you get the fuel cell reactance valve to normal that'll go away.
CMP Roger.
CC-H No problem.
PAO This is Apollo Control at 12 minutes. Everything looking good here on the ground, a normal orbit insertion. The booster engineer here in Mission Control at Houston reports that the booster is doing all the things that it should following orbit insertion. And everything looks very good. A good burn on both first and second stages of the Saturn and a very normal launch sequence.
CC-H And Apollo, Houston. How do you read me on VHF through Newfoundland.
ACDR Fine thus far, Dick.
CC-H Okay. We've got you for about another 31 minutes.

END OF TAPE

ADTP (UNA) MISSION MC53/1
Time: 15:04 CDT 14:04 PET
7/15/75

FAO Flight Director Pete Frank going around the room for a post launch insertion status, and everybody says it look good all the way around. No anomalies to report at this time.

CC-H Apollo, Houston. We're about 1 minute from LOS at Newfoundland. We're gonna drop and I'll give you a call about 3 minutes from now for a short pass through Madrid. See you there.

ACDR Okay, Dick.

ACDR Thank you. We're just getting (garble) out here.

CC-H Okay. We've gone around the room and looked at all the data we had during the launch phase and you're looking real fine. No problem.

ACDR (Garble)

FAO This is Apollo Control at 17 minutes. Apollo now out of range of the Newfoundland tracking station. We'll be coming up on Madrid in a little under 5 minutes for a short pass, just a little over a minute there, through Madrid. After a very normal launch and insertion, a good burn on both the Saturn 1st and 2nd stage, an on time lift-off and a nominal orbit, and we're awaiting orbital figures from the flight dynamics officer, but the report that we've had here in Mission Control is that the orbit was very close to nominal.

FAO And we have acquisition of signal through Madrid. This will be a very short pass - -

CC-H - - through Madrid. How do you read?

ACDR Loud and clear, Dick.

CC-H Roger. Read you the same. This is a short pass, and we're not sure exactly how long it's going to last, but it will be about a minute. And ARIA is going to come up in about 55 minutes, so we'll see you there.

ACDR Okay.

FAO And we see the booster maneuvering to the desired retrograde local horizontal attitude. This maneuver accomplished with two auxiliary propulsion system modules on the S-IVB booster.

END OF TAPE