This is Gemini Launch Control. We're at T-349 minutes, 40 seconds and counting on this morning's Gemini 9-A mission. All is proceeding satisfactorily at the present time. We have not had any holds and we have no outstanding problems at the present time. The augmented target docking adapter Atlas combination came into the countdown at the T-440 minute mark, some 90 minutes ago. The Gemini spacecraft joined the countdown at the 360 minute mark, that's about 10 minutes ago. All systems going very well at this time. Now at T-349 minutes, 4 seconds and counting. This is Gemini Launch Control.

END OF TAPE

This is Gemini Launch Control. T-335 minutes and counting. T-335 minutes and counting, all proceeding very satisfactorily on the Gemini 9-A count at the present time. We are right on time as far as the countdown is concerned, aiming for the lift-off of the Atlas/ATDA vehicle at 10:00 a.m. EST. At the present time, at Launch Complex 14, the crew is in the process of installing the destruct packages aboard the Atlas first stage. This is part of the Command Destruct System that would be used in the event the vehicle did go astray at the flight pad and create a dangerous condition during the power phase of flight. The so-called red-boxes of the destruct packages are loaded aboard the Atlas and they are tested at various times during the countdown as we reach the later part of the count. A matter of seconds before lift-off this system is armed, so it could be activated if required in flight. In the meantime at Launch Complex 19, the backup pilots for the 9-A mission Astronauts Jim Lovell and Buz Aldrin, are aboard the Gemini 9 spacecraft going through some early checks. We picked up on the spacecraft count about 27 minutes ago and Lovell and Aldrin came aboard the spacecraft at about the T-390 minute mark. They will spend most of the morning in the spacecraft pending the arrival of the prime pilots of the mission later in the count, of course Command Pilot Tom Stafford and Pilot Gene Cernan. All going well at this time on Gemini 9-A, T-333 minutes, 23 seconds and counting. This is Gemini Launch Control.

END OF TAPE

This is Gemini Launch Control. T-320 minutes and counting and all still proceeding satisfactorily on the Gemini 9-A count. The backup pilots for the mission Jim Lovell and Buz Aldrin, still checking out the Gemini 9 spacecraft. The prime pilot Tom Stafford and his pilot Gene Cernan still probably asleep at the Crew Quarters at NASA's Kennedy Space Center, Merritt Island at the present time. We have a general report that our weather conditions are going to improve over the next two hours and should be acceptable for launch. Present time, we do have some excessive cloudness and rain, but the weatherman tells us that he expects it to clear up within the next two hours. We are proceeding very well on the countdown, there has been no holds in it and there has been no major problems up to this time. T-319 minutes, 9 seconds and counting. This is Gemini Launch Control.

END OF TAPE

This is Gemini Launch Control at T-305 minutes and counting, T-305 and counting and all proceeding very, very well both at Launch Complex 14 and 19 at the present time. The back-up pilots Jim Lovell and Buzz Aldrin are still on the Gemini 9 spacecraft. Tom Stafford and Gene Cernan the prime pilots should still be in bed and asleep at their crew quarters at the Kennedy Space Center, Merritt Island. We have had two minor items last evening and this morning; concerned with the spacecraft where we had to make a change in one case and forego one telemetry parameter in another case. To take the two of them, the first one is concerned with one telemetry parameter, concerned with Gemini spacecraft. This is some telemetry information that would tell us during the flight the temperature of the liquid oxygen bottle concerned with the fuel cell system of the spacecraft. This single piece of telemetry information is in-operative, however, it is not a...repeat it is not a Mandatory Item for the flight and the decision has been made to proceed with the mission, without this one piece of telemetry information. It is not a Mandatory Item. This telemetry is in-operative at the present time and is expected that it will remain that way. As reported last evening I believe that so-called ripple that we had with the DC inverter that direct current inverter in the Atlas Launch vehicle has disappeared. This was the result of several fixes that were made over the last several days, one of the primary ones being a change in the inverter of course. The one other item that we did replace early this morning, was one telemetry transmitter in the Gemini spacecraft. This transmitter is concerned with the so-called tape play-back system.

This is where...with the spacecraft in flight, the tape-play back of information to ground stations, the telemetry transmitter concerned with that. We had difficulties, particularly with some noise with it earlier, and it has been replaced. So we are in a go position at this time as far as the ATDA and Atlas on Launch Complex 14 and the complete Gemini configuration on 19. We're now T-302 minutes and 30 seconds and counting. This is Gemini Launch Control.

END OF TAPE

This is Gemini Launch Control. We are at T-285 minutes and counting. T-285 and counting and all proceeding very, very well on this very complicated simultaneous countdown for the Gemini 9-A mission. Our checkout is proceeding excellently, both at Launch Complex 14, with the Atlas first stage and augmented adapter, the ATDA will be the target for the Gemini 9 pilots. At Launch Complex 19, the backup pilots for the mission, Jim Lovell and Buz Aldrin, are proceeding with the checkout of the Gemini spacecraft. It is expected that the prime pilots for the mission, Tom Stafford and Gene Cernan, will be awakened shortly at their Crew Quarters at the NASA Kennedy Space Center, Merritt Island. We will have a further report on their early activities at the Crew Quarters in about a half an hour from this time. In the meantime, the weatherman informs us that we are "GO" for the Gemini 9 mission, despite some low clouds and some rain in the Cape Kennedy area this morning, the prediction is that the rain should stop within a half an hour or so and the weatherman gives the following forecast for the Cape area. We're to expect some cloudly weather, but the ceiling will be about 10,000 feet, some scattered clouds at 1500 feet, a visibility of 10 miles and variable winds, less than five miles per hour. It is possible that these winds may increase to about 10 miles late in the morning as they turn northly. We actually have, what the weatherman described as a weak cold-front coming through the Cape Kennedy area. This will probably help us as far as showers are concerned, this afternoon. The weatherman predicts that there is a very low probablity of showers in the afternoon. In the remainder of the track throughout the world, the weather is acceptable is all areas. In the location where the Carrier Wasp will be in the Western Alantic, the forecast is partly cloudly, 15 knot winds and a sea state of four feet. The weather is acceptable in all other areas at this time. Now at T-283 minutes and counting. This is Gemini Launch Control.

END OF TAPE

This is Gemini Launch Control. T-254 minutes and counting. T-254 and counting and all going very well, both at Launch Complex 14 and Launch Complex 19, with our checkouts for the Gemini 9 mission. The prime pilots for the mission, Astronauts Tom Stafford and Gene Cernan were awakened at their Crew Quarters right on time. It was 7:11 a.m. EST. They're now getting dressed and in some five minutes from this time will start their brief final medical examination. In the meantime, their backups Astronuats Jim Lovell and Buzz Aldrin are in the Gemini 9 spacecraft as they have been for the last hour and a half or so, making final early checks of Gemini spacecraft. They will be ready to report to the prime pilots later in the count when Stafford and Cernan come to the pad. All going very well at this time, at T-253 minutes. We will now switch you to the Mission Control Center in Houston.

This is Gemini Control Houston. Here in the Mission Control Center, the Green team, which has been on duty here since mid-night, Houston time, have just completed a series of theoretical Gemini trajectory runs, using the real-time computer complex and the Flight Controller display systems. Around the network, the Manned Space Flight network, there are minor equipment problems around the Bahama Islands, Canary Islands, and Carnarvon. However, all of these stations can support the mission. The USS Wasp, prime recovery vessel for this mission is on station in the Western Alantic. The weather out there is broken over-cast at 3000 feet, visibility 10 miles, the wind is at 15 knots from the east, three feet in waves, and the temperature is 60...76 degrees F. The ship is ready to support the launch and the subsequent mission. Yesterday, the Wasp simulated a pickup of a Gemini spacecraft using a so-called "boiler plate" spacecraft. The whole exercise went very well. At T-251 minutes and 42 seconds, this is Gemini Control Houston.

END OF TAPE

This is Gemini Launch Control at T-244 minutes and counting. All once again proceeding very satisfactorily at both Launch Complex 14 and 19, as it has since the count was picked up early this morning. All systems going very well at this time. Coming up in about three and ahalf minutes from this time the final major element of the simultaneous Gemini countdown will join the count. This is the Gemini Launch Vehicle which comes in at the 240 minute mark. We will have involved at one time or another, through the remainder of the count, nine different countdowns going on simultaneously leading up to the launch of the Atlas/ATDA, at 10:00 a.m. EST; and the Gemini 9-A if all goes well, at 98 minutes later. All systems going very well at this point, to repeat the prime pilots for the mission, Astronauts Tom Stafford and Gene Cernan were awakened at 7:00 a.m. EST as planned. It is expected they will be coming down the hall from their crew quarters shortly to take their brief final physical examination. This will be followed by breakfast some 10 or 15 minutes later, once again at their crew quarters at the NASA Kennedy Space Center in Merritt Island. Now T-242 minutes, 37 seconds in counting. This is Gemini Launch Control.

END OF TAPE

This is Gemini Launch Control, T-234 minutes and counting. T-234, all is still going well with the overall Gemini 9A countdown. The Gemini Launch Vehicle, the final element to join the simultaneous countdown came in at the 240 minute mark, about six minutes ago, and we now have the complete simultaneous countdown in operation. We have about two hours and 19 minutes to go to the planned Atlas ATDA launch. All is going well at Complex 14. The key test is coming up shortly at the pad. This is the so-called auto-pilot test in which the crew in the blockhouse checks the auto-pilot of the first stage. This is the device that is located in one of the pods on the side of the Atlas. It directs the booster engines during the early phases of flight to get the proper attitude prior to the radio command guidance system coming in during the later phases of the Atlas powered flight. During this test, among other things, they do actually swivel those booster engines at the base of the vehicle; the crew in the blockhouse monitors to insure that these engines will respond to the commands from the auto-pilot. The prime pilots for the Gemini 9A mission, Astronauts Tom Stafford and Gene Cernan left the crew quarters and went down the hall to start their physical about five minutes ago. Dr. Duane Catterson will be making the brief examination. The backup pilots, Jim Lovell and Buzz Aldrin are still aboard the spacecraft; they have been since early this morning, making the preliminary checks. They will be ready to report to the prime pilots when they do come to the pad. The overall count which picked up about three and a half hours ago with the start of the Atlas Augmented Target Docking Adapter count is still going very well at this time. Coming up on T-232 minutes, this is Gemini Launch Control.

END OF TAPE

This is Gemini Launch Control. T-224 minutes and counting and we're still proceeding very well at Complex 14 and 19 on the Gemini 9-A countdown. Just a few minutes ago the prime pilots for the mission, Astronauts Tom Stafford and Gene Cernan sat down for breakfast at their Crew Quarters at the NASA Kennedy Space Center at Merritt Island. Once again, it was the usual Astronaut menu of a choice of juice, Filet Mignon, scrambled eggs, toast and coffee. At the latest report, we have now the following were guests for the prime pilots, Donald K. Slayton, who is Director of Flight Crew Operations for the NASA Manned Spacecraft Center, and the following astronauts: Walter Cunningham, Don Eisele, Ed Givens, and Pete Conrad. That is the group as we have it now, who are having breakfast with the prime pilots at their Crew Quarters. In the meantime, all is still going well with the countdown. We are now at T-223 minutes and counting. This is Gemini Launch Control.

END OF TAPE

This is Gemini Launch Control, T minus 214 minutes and counting. T-214 still going very well at Launch Complex 14 and 19 in the Gemini 9A checkout. Astronauts Tom Stafford and Gene Cernan are still enjoying breakfast at their crew quarters at the NASA Kennedy Space Center, Merritt Island. They'll be departing from the quarters about 20 minutes from this time to proceed to the ready room at Launch Complex 16 to don their suits and go through the final checkouts before heading to Launch Complex 19 and the Gemini spacecraft. Their backups, Jim Lovell and Buzz Aldrin, still aboard the spacecraft at this time going through the numerous procedures and checks required prior to Gemini liftoff. They will be ready to report to the prime pilots when they come aboard. Our weather is still go. It is still expected that we will have satisfactory weather conditions here at the Cape and throughout the ground track, especially in the contigency recovery areas for a launch this morning. Now at T-213 minutes and counting. This is Gemini Launch Control.

END OF TAPE.

This is Gemini Launch Control. T-204 minutes and counting. T-204 and counting and all proceeding very well. In the four hours or so since the countdown was picked up on the Gemini 9A mission with the start of the Atlas Augmented Target Docking Adapter count, all has been going very well thus far. Both at 14 and 19, the two launch pads, everything is checking out fine at this time. The Prime Pilots, Tom Stafford and Gene Cernan should have finished up their breakfast at about this point and will be departing from the crew quarters about 10 minutes from this time. Our weather is still in a go condition and we have a report from the physician who did give the prime pilots their final brief physical. Dr. Duane Catterson declared that the astronauts were in good shape and still eager for the mission. Now T-203 minutes and counting. We switch you to Mission Control Center, Houston.

This is Gemini Control Houston. One by one the minor equipment problems reported earlier around the manned spaceflight network stations are being wiped off the status board. Members of Gene Kranz's White Team of flight controllers are now arriving here in Mission Control prior to relieving the Green Team headed by Flight Director, Cliff Charlesworth. The Flight Dynamics Officer here in Mission Control has just completed his practice Atlas Target Adapter trajectory run on the multicolored plotboard switcher on the frontwall of the Mission Control room. There seems to be a general good feeling among the Flight Controllers about the mission. At T-202 minutes and 12 seconds, this is Gemini Control.

This is Gemini Launch Control. T-194 minutes and counting. At this point in the countdown the prime crew, Astronauts Tom Stafford and Gene Cernan, are just about ready to depart from their crew quarters at the NASA Kennedy Space Center, Merritt Island, and proceed the seven miles or so to the Launch Complex 16 Ready Room where they will make their final arrangements for the flight. This is where they will don their space suits and go through their final checkout prior to heading for Launch Complex 19 and the Gemini spacecraft. Their backups, Astronauts Jim Lovell and Buzz Aldrin, are still aboard the spacecraft at this time. I believe, they just departed a short time ago, as a matter of fact. They're clearing the White Room to prepare for the pressurization of the Gemini Launch Vehicle which will be coming up in about ten or fifteen minutes. Meanwhile, at Launch Complex 14, we have just completed a final series of checks on that Augmented Target Docking Adapter which will be the target for the Gemini 9 pilots. The ATDA has been completely checked out at this point. It is in satisfactory shape and we're proceeding with the count. Some five or eight minutes from this time we'll be ready to roll back that gantry service tower at Launch Complex 14 and proceed with the terminal phases of the Atlas count aiming toward a liftoff of the Atlas Vehicle about an hour and 38 minutes from this time. All going well at both pads and we have the prime pilots on their way from the crew quarters to the Ready Room. T-192 minutes and 24 seconds and counting. This is Gemini Launch Control.

END OF TAPE

This is Gemini Launch Control, T minus 184 minutes and counting. All proceeding very, very well on this morning's simultaneous countdown. Control of the countdown clock one of the key elements in this very complex countdown, now has reverted from Pad 19 to Launch Complex 14. Control of the clock will remain at 14 through the liftoff of the Atlas, the first launching - the first of two launchings this morning in the Gemini 9A mission. From this point down to Atlas liftoff the Atlas Launch Vehicle Test Conductor will call the holds, if any holds are necessary in the countdown. This enables everybody else in the count to coincide their times - their hold times with the master clock which now will be handled at Launch Complex 14. Astronauts Tom Stafford and Gene Cernan should be arriving at the ready room at Launch Complex 16 shortly. Also, at Launch Complex 14 we're about ready to take back the gantry service tower which will leave the Atlas and the augmented target docking adapter open at Launch Complex 14. This process of rolling back the tower takes about 30 minutes and after its locked back in place the crew will get ready to start the final propellant loading. That is loading that liquid oxygen aboard the Atlas first stage. All going along very well at this point. During the count this morning we had several problems but they are all in the very, very minor catagory. To discuss several, we ran into one problem with the telemetry parameter concerned with the Gemini spacecraft. This particular piece of telemetry tells us the temperature of the liquid oxygen bottle in the fuel cells system. This telemetry is not working,

however, it has been determined that it is not repeat not a mandatory item. We are going to launch without it, no problems are expected. In one other case we did replace one of the telemetry transmitters from the Gemini spacecraft. It was concerned with a tape playback system of the spacecraft. We were getting some noise on that transmitter, we replace it and it is checking out fine. Now at T minus 181 minutes, 42 seconds and counting. This is Gemini Launch Control.

END OF TAPE

GEMINI 9A MISSION COMMENTARY, 6/1/66, 7:41 a.m. TAPE 14 PAGE 1

This is Gemini Launch Control. T-174 minutes and counting. All proceeding satisfactorily both at Launch Complex 14 and 19. The tower is still coming back from the Atlas ATDA combination on Launch Complex 14 and our checkouts are proceeding satisfactorily there. Going on at the present time is a brief, so-called liftoff test, where a signal is actually sent to the launch vehicle to permit the Air Force Eastern Test Range and the crew to get a signal of confirmation that they will get a signal of confirmation at liftoff of the actual Atlas ATDA, which is due about an hour and 20 minutes from this time. Astronaut Tom Stafford and Gene Cernan are in the ready room. They should be putting on their sensors prior to donning their spacesuits at this time. We have had a very excellent countdown thus far. It has been in process for about four and a half hours. We now have about all nine elements in this very complex simultaneous count. Last evening we started loading the fuel aboard the Gemini Launch Vehicle. This took about threehours and 32 minutes. The count as reported was picked up on the Atlas ATDA at 4:15 a.m., Eastern Standard Time this morning or about four and a half hours ago. All is proceeding very satisfactorily at this time. We have no particular problems at either launch pad. T-172 minutes 30 seconds and counting. This is Gemini Launch Control.

END OF TAPE

This is Gemini Launch Control. T-164 minutes and counting. T-164. All proceeding very, very well in our simultaneous count. We have regained access to the White Room at Launch Complex 19 at the spacecraft level. The White Room had to be evacuated a little earlier in the complete Launch Complex area. Most of the crewmen went into the blockhouse as we pressurized the Gemini Launch Vehicle. We pressurized the tanks in both the second stages with nitrogen to assure that we will get a smooth flow of the various propellants to the engines during the powered phase of flight. Prime pilots for the mission, Astronauts Tom Stafford and Gene Cernan, still in the Ready Room at Launch Complex 16. According to the Astronaut countdown, they should be ready to don their suits about five minutes from this time. They will depart just shortly before the 125 minute mark in the countdown. We're now about an hour and ten minutes away from the planned Atlas ATDA liftoff which will come at 10:00 A. M. EST. All systems looking good. 163 minutes and counting. This is Gemini Launch Control.

END OF TAPE

This is Gemini Launch Control. T-154 minutes and counting and all still going very well at Launch Complex 14 with the ATDA and 19 with the Gemini spacecraft and launch vehicle. At Complex 14, at the present time, we are going through some guidance command tests. This is with the radio command guidance system, the combination of General Electric and Varos Radio Command testing out the system between the ground system and the launch vehicle. It appears to be proceeding satisfactorily at this time. In the White room at Launch Complex 19, the backup pilots, Jim Lovell and Buzz Aldrin are back in the spacecraft and making the final checks. They will be ready to brief the prime pilots, Astronauts Tom Stafford and Cernan when they arrive at Launch Complex 19 about 25 minutes or so from this time. We are about 59 minutes away from the planned Atlas ATDA liftoff at this time, all proceeding very, very well at this time. It is now T-153 minutes and counting. We switch to Mission Control, Houston.

This is Gemini Control in Houston. Our White Team of Flight Controllers has slipped in to the consoles, ready to take over this flight at liftoff. This team headed by Gene Kranz, our Flight Director. Here from Washington is Mission Director, William Schneider from the Office of Manned Spaceflight. Our surgeon today is Dr. Fred Kelly and our spacecraft communicator, Neil Armstrong. This morning, since 7o'clock we have been making some status checks with the worldwide tracking network. All are go. We have one change in the network, the Guaymas, Mexico station will not be receiving telemetry during this mission because it is changing over its equipment to support the Apollo launches. We will have radar track there, however, and

our spacecraft communicator, Neil Armstrong, will use the station to remote his voice to the flight crew. This is Gemini Control, all our controllers are in a go position for this launch. We are now 56 minutes 50 seconds from the Atlas liftoff.

END OF TAPE

This is Gemini Launch Control, T minus 144 minutes (T-144) and counting. All still going very well at both launch pads concerned with the Gemini 9A mission. Some 49 minutes away from the planned Atlas liftoff. Our weather conditions are still good for a launch both here and the Cape Kennedy area and around the world. At Launch Complex 14 we're preparing for one of the highlights of the final phase of the Atlas countdown. That is loading of the liquid oxygen aboard the Atlas first stage. Liquid oxygen which must be maintained at a temperature of 297 degrees below zero. First we'll chill down the lines associated with feeding in the locks. This will take about five or ten minutes and then proceed to load the liquid oxygen aboard. We'll be carrying some 18,500 gallons of the locks and it will be fed in at a fast flow rate of about 2,000 gallons per minute until we reach about the 95 percent level. This will be coming up shortly. In the meantime at Launch Complex 19 all is still going well. The crew in the White Room has checked some of the final stowage aspects of the mission and they have erected two signs to welcome the prime crew when they come to the White Room. Over the command pilots side, that is the left cockpit there is a sign above the cockpit. It depicts the comic strip character who travels around with a black cloud over his head. Coming out of the black cloud is the quote "Ah Shucks." On the righthand hatch, Gene Cernan's cockpit, there is another sign that has Gene's first name "Gene" then the words "Agena Locator". The

word Agena is crossed out and ATDA is put in its place. Below the words is a magnet reaching towards a question mark. We are now at T minus 142 minutes (T-142) and counting. This is Gemini Launch Control.

END OF TAPE.

This is Gemini Launch Control, T minus 134 minutes (T-134) in the overall Gemini 9A simultaneous count. Thirty-nine (39) minutes away from the planned Atlas ATDA liftoff. All systems going very well at this time. The liquid oxygen is coming aboard the Atlas first stage. We are going through some autopilot checks which will actaully swivel those booster engines again at the base of the vehicle to insure that they will respond to the autopilot commands. At Launch Complex 19 in the White Room, we're beginning to purge the spacecraft fuel cells. This is one of the final purges to keep it in readiness for the ultimate liftoff. All systems going very well. T minus 133 minutes, 15 seconds and counting. (T-133:15)

END OF TAPE.

This is Gemini Launch Control. T-127 minutes and counting. T-127. All proceeding very well at this time. We're about 32 minutes away now from the planned Atlas ATDA liftoff. All systems are looking good. It is expected in a matter of minutes, the prime pilots for the mission, Astronauts Tom Stafford and Gene Cernan, will depart the ready room and proceed to Launch Complex 19 nearby where they'll come up to the White Room and board their spacecraft at the 115 minute mark in the overall count. At the two launch complexes at the present time we are going through a status check that precedes the crew's arrival. Our status check has been going very well and all aspects report go at this time. Now T-126 minutes, 12 seconds and counting. This is Gemini Launch Control.

END OF TAPE

This is Gemini Launch Control. T-123 minutes and counting. All still proceeding very well and the prime pilots for the mission, Astornauts Tom Stafford and Gene Cernan are on their way to Launch Complex 19. It will just take a matter of minutes as they travel in their transfer van from 16 to Launch Complex 19. The backup pilots, Astronauts Jim Lovell and Buzz Aldrin are still aboard the Gemini 9 spacecraft, making their final checks. They will be ready to report to the two prime pilots when they are up in the white room in a matter of minutes from this time. All still going very well on the countdown. T-122 minutes 23 seconds and counting. This is Gemini Launch Control.

END OF TAPE

This is Gemini Launch Control, T minus 120 minutes, 15 seconds and counting. (T- 120:15) The Prime Pilots, Tom Stafford and Gene Cernan, have now arrived in the White Room where the Gemini 9 spacecraft is located. Their carrying two signs from what we can see from here. One of them on the left carried by Gene Cernan says "We try harder". We'll get further information on this shortly. They are now getting a report from the pad leader and their backup Pilots, Jim Lovell and Buzz Aldrin, on the status of the mission. They are getting a report that the mission is GO at this time, with some 25 minutes away from the Atlas liftoff. The crew will get aboard the spacecraft, the hatches will be closed at the 100 minute mark in the count, if all proceeds as planned. Five minutes later after that time we'll be aiming for the Atlas liftoff. T minus 119 minutes, 23 seconds and counting. (T-119:23) This is Gemini Launch Control.

END OF TAPE.

This is Gemini Launch Center 1, T minus 115 minutes (T-115) and counting. All going very well at this point. Astronauts Tom Stafford and Gene Cernan are aboard the Gemini spacecraft and their beginning to get settled in the spacecraft and make their initial checkouts. It's expected that the hatches will be closed about 15 minutes from this are the 100 mark in the countdown itself. In the meantime at Launch Complex 14, we are still proceeding very well with our checkouts, our final checkouts of the Atlas. Aiming towards a liftoff of the Atlas ATDA on the hour. Now T minus 115 minutes (T-115), 25 seconds and counting. We switch you to Gemini Mission Control in Houston.

This is Gemini Mission Control in Houston. Our status here up to this point is green and GO. At this time our Flight Director, Gene Kranz is making a final status check of his flight controllers. He is getting a series of GO. During the launch of the Atlas booster, boosting the ATDA target, the booster engines will burn for one minute and 58 seconds. The booster engine will separate at two minutes - one second. The sustainer engine will continue to burn for a full five minute 40 second duration. The vernier engine, the little engines used for guidance will burn for six minutes and seven seconds. The shroud which covers the target will separate after VECO a out ten seconds after VECO. We will give you now some of the weather around the world. Across the

Atlantic on the first passage we have exceptable landing conditions. These prevail almost everywhere but there is a band of numerous showers extending from Florida out into the Atlantic for about 500 miles. In the Mid-Pacific landing zone whichis centered about 300 miles northeast of Honolulu we have partly couldy skies, winds 20 knotts, seas six feet. In the Western Pacific landing area centered about 700 miles south, southwest of Tokyo mostly couldy, intermittent rain, winds will be 15to 20 knotts and seas four to six feet. In the Eastern Atlantic landing zone about 300 miles west of the Cape Verde Islands partly couldy skies, winds 15 knotts and seas four feet. The primary landing zone in the Western Atlantic, about 800 miles east of Miami our weather is partly cloudy skies with winds of 18 knotts and seas four to five feet. We have a green condition here. Our Flight Director has completed his final status check. He has received a green and GO indication from all flight controllers and we are standing by here for the launch. This is Gemini Control in Houston.

GEMINI 9A MISSION COMMENTARY, 6/1/66 8:45 am TAPE 23 PAGE 1

This is Gemini Launch Control, T-110 minutes and counting in the overall Gemini 9A simultaneous count. T-15 minutes and counting for the Atlas ATDA, the first of two launchings in the Gemini 9A mission this morning. All still proceeding very well with both launch pads at this time, as we approach the final phases of the countdown for the Atlas. At Launch Complex 19, in the Gemini spacecraft, Astronauts Tom Stafford and Gene Cernan making some of their preliminary checks. The surgeon in the blockhouse has taken a couple of blood pressure readings. The astronauts have asked for their status on the Atlas launch and the status is reported as go. Meanwhile at pad 14 we are proceeding. Some of the final highlights of the count as we approach the Atlas liftoff are as follows: the hatches on the Gemini spacecraft will be closed at the 100 mark in the count of T-5 as far as the Atlas is concerned. Atlas vehicle telemetry will go on internal power at the three minute 30 second mark prior to launch. A final verification of all systems will come at T-2 minutes and 30 seconds, will secure the liquid oxygen venting at two minutes and 10 seconds. This is when the vent closes on the Atlas first stage and we have our full supply of liquid oxygen aboard. We will bring the vehicle up to flight pressurization in the propellant tanks in the Atlas. We pressurize with Helium on the Atlas vehicle. This will come at two minute mark. The complete vehicle is on its own internal power, that is the batteries of the vehicle at one minute and 40 seconds. A little later in the count, the launch vehicle test conductor will be watching his console to see a series of ready lights turn from amber to green, signifying that he has an okay to launch from Range Safety to supervisor of Range Operations to Launch Director among others. There will be checks of the autopiloter in the late phases and then

the automatic sequencer will come in at the T-18 second mark of the count. The Atlas ignition system will start at four seconds with liftoff at zero. The two small vernier's will ignite first when they build up pressure. They will get ignition of the twin boosters in tandem at the base of the Atlas and finally the sustainer engine. All three engines ignite on the ground before liftoff. Now 107 minutes and 35 seconds and counting. This is Gemini Launch Control.

END OF TAPE

This is Gemini Launch Control. At T-102 minutes and counting. Seven minutes away from the planned Atlas ATDA launch at Launch Complex 14. All systems still going very well at this time. About three minutes ago the hatches were closed on the Gemini 9 spacecraft at Launch Complex 19. In the meantime at Pad 14 we are proceeding well. We just had one of the final status checks of all major aspects of the Atlas launch and all report go at this time. This is Gemini Launch Control. T-101 minutes and 24 seconds and counting.

This is Gemini Launch Control. As a matter of interest, the Surveyor Launch is also doing very well. We have a location for the Surveyor spacecraft in relation to the liftoff time of the Atlas. The location is as follows: at 10:00 A. M. EST the Surveyor spacecraft will be 195,000 miles from the Earth, traveling at a speed of 2,430 miles per hour, at a distance from the moon of 46,250 miles. Now T-100 minutes, 47 seconds and counting. This is Gemini Launch Control.

END OF TAPE

This is Gemini Launch Control. T-4 minutes and counting. T-4 minutes and counting on the Atlas ATDA launch. All is proceeding very well during the final phases of the count at Launch Complex 14. This is Gemini Launch Control.

END OF TAPE

This is Gemini Launch Control, T-3 minutes and counting. T-3 on the Atlas launch. All still going very well during these final phases. The telemetry aboard the Atlas vehicle is now on internal power, as the crew in the blockhouse continues its checkouts on their consoles to insure that everything will be in readiness as we come down in the count. Now 97:38 and counting, all stidl proceeding very well. The astronauts at Launch Complex 19 have been advised that they will be able to open their visors after the spacecraft has been purged during these final moments of the countdown. Now 2 minutes and 23 seconds away from the Atlas liftoff. We just a made another final brief check of all systems, we are still go at this time. T-2 minutes and 10 seconds and counting. We just had word from the blockhouse the lox tanking has been secured, that vent has been closed, we are at 0 fuel on liquid oxygen and RP1 propellant. T-1 minute 55 seconds and counting. The reports are coming in at various intervals here from the blockhouse at this time covering the major events during these final moments. We have the vehicle at flight pressurization at this point 1 minute and 40 seconds away from the Atlas liftoff. T-90 seconds and counting, all still proceeding well. That water at the base of the launch complex has been turned on, 30,000 gallons per minute now coming out. T-1 minute 18 seconds and counting, all still going well in the count. The Command Destruct System now has been armed, it will be ready for use if it has to be used during the powered portion of the flight. One minute, 5 seconds away from the Atlas liftoff. T-60 seconds and counting, T-60, all still going well during the final phase. The helium that pressurizes the vehicle is now on internal power. T-50 seconds and counting. T-45 seconds, we have assurance in the blockhouse that the auto-pilot also is go, the ready light is on. T-40 seconds and counting. During the final phase that

sequencer will come in at 18 seconds, it will be all automatic down to ignition. T-30 seconds and counting. T-25. T-20. We have the sequencer in, there was a brief hold at 18, now its T-15 and counting. 10, 9, 8, 7, 6, 5, 4, 3, holding momentarily at 4. We have ignition.

(Houston Mission Control) And we have a liftoff. The liftoff, it looked like 15 minutes...it looked like 4 seconds after the hour. Flight Dynamics reports all systems are go. The Range Safety Officer reports green conditions at the Cape. T+38 seconds, trajectory looks good. The liftoff confirmed, occurred at 2 seconds after the hour, trajectory still looks good. Flight Dynamics says the trajectory looks very good to him. T+1 minute, 25 seconds, still looks good. The Atlas is now approximately 20 nautical miles in altitude. Flight Dynamics says the trajectory looks real good. According to our plotboards we are following our overlay almost perfectly. The Atlas is now about 25 nautical miles downrange and is approaching 40 nautical miles in altitude. Trajectory looks good. We have had BECO confirmed, the booster engines have shut down. Flight Dynamics says the trajectory looks good. T+2 minutes, 44 seconds, the telemetry from the ATDA is good. The vehicle is now 80 nautical miles at altitude and about 90 nautical miles downrange. The trajectory still looks good. T+3 minutes, 20 seconds, everything looks very good here. Our vehicle is now 100 nautical miles in altitude and 125 miles downrange. T+3 minutes, 50 seconds. Our vehicle is now about 120 nautical miles in altitude and 175 miles downrange. It looks real good here. The telemetry from the ATDA is very good. T+4 minutes, 20 seconds, and our vehicle is now 225 nautical miles downrange at approximately 140 nautical miles in altitude which is close o what we are looking for. We are right on the money here.

END OF TAPE

...T plus 5 minutes. We are - trajectory looking very, very well from a trajectory standpoint. The vehicle is now about 155 nautical miles in altitude and approximately 315 nautical miles down range. The trajectory looks real good from our control center here in Houston. Now 400 nautical miles down range and about 160 nautical miles in altitude but we are looking for a 161 nautical mile orbit. SECO has occurred. It looks real good. The next event will be the vernier engine cutoff, the guidance engines. We have had BECO confirmed. And we still look good. The shroud should separate momentarily. The shroud should have separated at VECO plus 10 seconds. We will have to assume that this has transpired. Looks like we had a good cutoff and everything is GO. The Cape has confirmed jettison of the shroud. Separation has been confirmed. The ATDA has separated from the launch vehicle. This is Gemini Control, seven minutes 30 seconds into the flight. We have a nominal liftoff of the ATDA, everything looked good. The trajectory was right on the money throughout the liftoff and throughout the powered portion of flight. All events occurred as programmed. We are now standing by expecting in orbit values the apogee, perigee that we did attain. Our preliminary estimate now on the orbital values 161 by 159. 161 nautical miles apogee by 159 nautical miles perigee and these values will be refined as we come over some of our tracking stations down range. This is Gemini Control, eight minutes 56 seconds into the flight. We have one discrepancy throughout this period of launch. In the mission control center at Houston we do not have an indication that the shroud has separated.

However, the Cape did confirm shroud sep and we did call it out at that time.

END OF TAPE.

This is Gemini Launch Control. T-84 minutes and counting. We have an orbit with the ATDA. Astronauts Tom Stafford and Gene Cernan have been informed of this. He was told by the Test Conductor, Len Schull. Stafford's answer was "good show," Len." And the Test Conductor then replied, "We knew if you stuck there long enough, we'd get you a good one." They are still proceeding now with the Gemini Launch Vehicle count. The prime pilots will be picking up shortly on their final switch list checks within the spacecraft. This is where both the prime pilots, the Command Pilot and the Pilot, check all the switches in their cockpits to insure that they are in the proper position for launch. All is now still proceeding well with the Gemini countdown. T-83 minutes, 12 seconds and counting. This is Gemini Launch Control.

END OF TAPE

GEMINI 9A MISSION COMMENTARY, 6/1/66, 9:16 AM TAPE 29 PAGE 1

This is Gemini Control in Houston, 16 minutes and 41 seconds since the Atlas boosted the ATDA target into orbit. Our new orbit refined figures 162 nautical miles by 161 nautical miles. Very close to exactly what we were looking for, which was 161 nautical mile orbit. All events during the launch were nominal. The trajectory looked perfect throughout and all events occurred on time. We had an indication, a light which blinked, when it should have blinked at shroud separation, however, this light should have remained off, but it did not remain off, it blinked, went off, came back on and at this time we are attempting to determine whether we have had a separation of the shroud which covers the docking adapter. This is Gemini Control. We are 17 minutes 43 seconds into the mission. Our target is now being tracked by the Canary Island tracking station and we should get some updated data very shortly.

END OF TAPE

This is Gemini Launch Control at T-74 minutes and counting. T-74 and counting and we are proceeding with the Gemini countdown in a fine manner at this time. In the White Room, at Launch Complex 19, we are preparing to evacuate the White Room. The crew is just about departed and we will be aiming for lowering the erector at Complex 19 at about the 55 minute mark in the count. As we continue to check on the status of the ATDA in orbit, the Astronauts have been advised that they do have a good orbit within of 159 by 161 nautical miles. All systems still going good at 19 at this time. T-73 minutes and 22 seconds and counting. This is Gemini Launch Control.

END OF TAPE

This is Gemini Control in Houston at 23 minutes and six seconds into the mission. The target is now passing over the continent of Africa as it approaches the west coast and we expect to get some good tracking data from the Tananarieve Station as it passes over that area in a few minutes. Meanwhile, during the launch of the target into orbit it was noticed that there was a lot of thruster activity and we were using the Ring B thrusters at that time for stabilization of the vehicle. At this time, the source pressure in Ring B appears to be somewhat down. Ring A -- we do have good source pressure and we have not yet been able to confirm shroud separation. The light that indicates separation of the shroud did blink off as it should have. It should have stayed off but did come back on. This could be caused by a short of a wire that may be grounded but we do not have confirmation of shroud separation at this time. Ring A has good source pressure and we can complete this mission -- the rendezvous portion of this mission -- regardless of whether the shroud did separate. This is Gemini Control. We are at 24 minutes, 36 seconds into the flight of our target vehicle.

END OF TAPE

This is Gemini Launch Control. T-64 minutes and counting. T-64 all going well with the countdown at Launch Complex 19. Just a matter of a minute or so ago, we started our preparations for the erector lowering. Preceding this is a status check and the opening of the so-called pre-valves in the second stage of the Gemini vehicle. The purpose of opening these pre-valves is to permit the oxidizer to flow further down and surpress any possible oscillations that might occur in the propellant system. Command Pilot, Tom Stafford, was notified of this and when the pre-valves did open as planned he reported that he could feel the movement in the vehicle. We will be continuing with our preparations aiming toward lowering the erector about eight minutes from this time. All going very well on the count at this time. At T-63 minutes and 10 seconds. We will now switch to Mission Control Houston.

This is Mission Control Houston. We now have a new set of values for our orbit refined at the Antigua tracking station. And those new values are 160.8 by 162.1. These are the latest orbital values refined and refined from low speed data and they should be very accurate. We still cannot confirm that the shroud on the target vehicle has separated. And we expect that we will be able to work out this problem to find out exactly whether the shroud is still on or is not on. If the shroud has not separated, we cannot dock the Gemini 9 vehicle with the target adapter. But we can do the rendezvous portion of the mission. That means that Tom Stafford and Gene Cernan can maneuver their vehicle to the proximity of the target but they will not be able to dock should the shroud be still there, still be

in place. However, our mission director, Bill Schneider, tells us that the probability that the shroud has separated is high. Because we did have an indication, the light that comes on at shroud separation did come on momentarily. This is Gemini Control. Our target vehicle is now passing over the southern tip of Africa and shortly will be within range of the Tananarive tracking station. This is Gemini Control.

END OF TAPE

This is Gemini Launch Control. Coming up on T-54 minutes and counting. As we await further word on the status of the Augmented Target Docking Adapter in orbit, our count is proceeding very well on all phases of the Gemini Mission at Launch Complex 19. Just a matter of two minutes ago, the erector began to come down leaving the launch vehicle exposed. Tom Stafford's comment was, "Boy, that's a good sight," once he saw daylight as the erector came back. He took time from some checkouts in the spacecraft concerned with the computer to make his remarks. "Nice view of the Cape from up here", reports Gene Cernan at this time. T-53 minutes, 20 seconds and counting. This is Gemini Launch Control.

END OF TAPE

This is Gemini Launch Control coming up on T-44 minutes and counting. T minus 44 and our final phase of the countdown still going very well at this time. The weather man tells us we have a slight buildup of clouds north of us but he does not anticipate that it will have any effect whatsoever on this morning's mission. In the meantime at Launch Complex 19 we've just completed checks on the launch vehicles three axis reference system, so called TARS package that helps guide the vehicle in flight. Astronauts Tom Stafford and Gene Cernan are busy checking with the launch - with the spacecraft test conductor and Stoney, the spacecraft communicator in the blockhouse, Astronaut Bill Aldrin. They are going over some readouts on the environmental control system, fuel cells, reaction control system and the propulsion system of the Gemini spacecraft. All these checkouts going well at this time. T minus 43 minutes eight seconds and counting. We now switch you to Gemini Mission Control at Houston.

This is Gemini Control in Houston. Our target vehicle is now coming up within range of the Carnarvon tracking statior in Australia. We have confirmation - we are getting telemetry. We have examined the telemetry carefully that is coming back from the ATDA target. The L-Band transponder is in good working condition. The L-Band antenna extends beyond the shroud. We still do not have confirmation on the condition of the shroud, whether it is on or off. The shroud itself is approximately 90 inches in length and weighs about 300 pounds. We have no way that we can

confirm whether it is off. Of course, during the launch of the Gemini 9 spacecraft as they get within optical range the astronauts will be able to tell the condition of that shroud. It is used - that is the L-Band transponder , the antenna is used during the rendezvous to bounce radar signals from the spacecraft back to the crew and they get their tracking data from it. This is Gemini Control. We are now 41 minutes 38 seconds before liftoff of the Gemini vehicle.

END OF TAPE.

This is Gemini Launch Control. Coming up on T-34 minutes and counting. Our countdown at Launch Complex 19 still going very smoothly at this point. In process are a series of telemetry checks with both the Gemini Launch Vehicle and spacecraft. The pilots, Tom Stafford and Gene Cernan, are participating in these tests. They've also just completed a series of ultra high frequency checks with Buzz Aldrin in the blockhouse. As our countdown proceeds down, we will have a built-in hold at the three minute mark in the count. This hold will last a little more than three minutes. It may be between three minutes and three minutes and 30 seconds. The Flight Director will advise the Cape at the 18 minute mark in the count the exact time that he wants us to launch. The Launch Vehicle Test Conductor for Gemini will come back about ten minutes later and announce the exact hold time. We will have a definite built-in hold at the three minute mark in the count, if all proceeds as well as it is going at this time. We will now switch to the Mission Control Center at Houston.

This is Gemini Control in Houston. Our target vehicle is now passing over the continent of Australia. Carnarvon gave us a go for the Gemini Launch. All systems aboard the target are in go condition with the exception, of course, that we cannot confirm whether the shroud has separated. Carnarvon reported they had a good track. Insertion velocity was 25,368.6 feet per second, and the planned feet per second at insertion was 25,368.3 feet per second. So, it was almost

right on the money. Only three tenths of a second off in speed. Now, we would like to discuss again just a little bit, the problem we have indicated with the RCS system aboard the target. We did report that ring B pressure is reading low and we do have a low reading on that. During the launch phase when the target separated from the Atlas Launch Vehicle, it was noticed that there was a lot of thruster activity. Ring B thrusters were being used to stabilize the target as it separated from the Atlas. And, so, we did use some of the fuel. It is reading low. Ring A is reading very well and we have plenty of fuel aboard in Ring A to complete the rendezvous portion of the mission. Now, should the shroud still be in place, we would not attempt to dock Gemini 9 with the target, however, the crew will be able to determine visually whether that shroud is still in place after they get in the proximity of the target vehicle. This is Gemini Control. We are T-30 minutes and 46 seconds.

END OF TAPE

GEMINI 9A MISSION COMMENTARY, 6/1/66, 10:11 AM TAPE 36 PAGE 1

This is Gemini Launch Control coming up on T-24 minutes and counting. T-24. Our checkouts are still generally well at this point in the countdown. In the Gemini spacecraft, Pilots Tom Stafford and Gene Cernan are making their preparations for the upcoming test of the spacecraft propulsion system. This is the so-called OAMS system which stands for orbit attitude and maneuvering system. In a matter of several minutes from this time the astronauts will fire the 25 pound thrusters in the spacecraft sending out a jet from the thruster package to insure that the system is properly prepared for launch and to insure of course, that the propulsion system is in working order. The astronauts are checking in the cockpit, now making preparations. The blockhouse is awaiting the fact that they are ready. Now T-23 minutes 10 seconds and counting. We will have a planned built in hold at the three minute mark. We will be advised by the flight director about five minutes from the time of the exact launch time. It will be somewhere close to 38 minutes past the hour, if all continues to go well. This is Gemini Launch Control.

END OF TAPE

This is Gemini Control in Houston. We are T minus 18 minutes and 56 seconds and counting. Our target vehicle is now passing over the Canton Island tracking station in the Pacific on the first revolution around the earth. As we approach the liftoff of our Gemini spacecraft here are some of the things we will be calling out for you or attempting to call out for you. Of course we will note liftoff, the start of the spacecraft clock. The clock in the cabin that is synchronized with our ground clocks to program various events that take place on the clock. We will call out the roll program, the pitch program, these are designed to place the launch vehicle and its spacecraft on the proper azimuth and trajectory. We will call out cabin pressure and we will note the 50 second mark in the flight. At this time our spacecraft and launch vehicle will be moving at 740 miles per hour and have attained - will have attained supersonic speed. We will note BECO or booster engine cutoff and point eight. At that time we have achieved eighty percent of the velocity needed to put the spacecraft into orbit and the speed at that time will be approximately 21,500 feet per second. We will note SECO or second stage engine cutoff. At that time the crew will thrust using their onboard thruster system at two feet per second to separate from the booster. We will also note that we have a GO for IVAR if it is passed on by the flight dynamics officer. This insert means that the insertion velocity adjustment routine used by the astronauts - the flight crew to correct any inplane and velocity errors. The GO is given by the flight dynamics officer. We are now 17 minutes and two seconds before Gemini liftoff and we return you now to the Launch Control at the Cape.

Gemini Launch Control at 16 minutes 53 seconds and counting. The astronauts are making their final preparations for this propulsion test of the Gemini spacecraft. As far as we can understand from listening in a short while ago their preparations were going well. We will fire the 25 pound thrusters on the spacecraft breifly to insure that we are flight ready. We have further confirmation that those clouds that might have been building up north of the Cape area will not distrub us this morning. We should be in a GO condition to launch. We have a launch time now which may be refined once again but we're aiming towards a T- zero at 38 minutes and 20 seconds after the hour. This is when the engines would ignite. We're still preparing for the thruster test at this time but all appears to be going well. Coming up on T minus 16 minutes, this is Gemini Launch Control.

END OF TAPE.

This is Gemini Launch Control. T-14 minutes and counting. T-14. That propulsion test with the Gemini spacecraft is going on at the present time. It appears to be going satisfactorily. The spacecraft Test Conductor, however, has started to go around the spacecraft again. They test the thrusters in the following manner. These are the 25 pound thrusters at the adapter section of the spacecraft itself. They test them yaw left, pitch down, yaw right, pitch up and yaw left. In other words, the various maneuvers that these thrusters can perform in the spacecraft propulsion system. All still appears to be going well. T-13 minutes, 20 seconds and counting. This is Gemini Launch Control.

END OF TAPE

This is Gemini Launch Control. T-9 minutes and counting. T-9. Flight Director, Gene Kranz, in Houston has informed the Cape we want a liftoff time of the Gemini at 38 minutes and 10 seconds after the hour. Martin Test Conductor, Frank Carey, reported that the hold time will last three minutes and 16 seconds when we declare the built-in hold at the three minute mark in the countdown. The weather man has reaffirmed that we have a go for launch. We've completed our propulsion check. They're in good shape. T-8 minutes and 30 seconds and counting.

END OF TAPE

GEMINI 9A MISSION COMMENTARY, 6/1/66, 10:32 am TAPE 40 PAGE 1

This is Gemini Launch Control. We are coming up on three minutes. Mark three minutes and holding. T-3 minutes and holding. We are in the planned built in hold that will help us coincide our launch with the orbit of the augmented target docking Agena which is now coming - will be coming over the Cape in a matter of some three to six minutes from this time. The length of the hold, three minutes and 16 seconds. Thereafter we will resume the countdown aiming for a T-0 or ignition time of the Gemini launch vehicle 38 minutes and 20 seconds after the hour. We have gone through a status check of the Gemini launch vehicle and the spacecraft. All major aspects just prior to coming into the hold and they all report they are in a go position. We will have another status check prior to resuming the countdown. When we do resume the count, the first thing that will happen is the Mark Three Guidance System will feed the flight parameters to the launch vehicle guidance system and the backup guidance in spacecraft computer. It will feed in the launch azimuth - correction flight azimuth of 97.7 degrees and the various other roll parameters that are required during the powered phase of the flight. Now three minutes and holding. The length of the hold, three minutes and 16 seconds. This is Gemini Launch Control.

END OF TAPE

This is Gemini Launch Control. We will be picking up the count shortly. We'll still holding at T-3 minutes but the Test Conductor has advised we expect to resume the count shortly. We've made another status check. We're still in a go condition at the present time. Astronaut Tom Stafford is running some more communications checks, ultra high frequency, with the Spacecraft Communicator. We now have an adjusted launch time of 38:23 after the hour. We have resumed the countdown. It is now T-2 minutes, 52 seconds and counting. Aiming toward a liftoff time of 38 minutes, 23 seconds after the hour. All systems going well here during the final phases of the count. The launch will be made to coincide with the orbit of the ATDA, actually, launching into an elliptical orbit at the start, and the spacecraft will trail the ATDA by some 650 miles if we launch at the prescribed time. We will reach T-0 in the countdown at 38 minutes and 23 seconds after the hour. The launch vehicle will take some four seconds to ignite and lift off. Now T-2 minutes and 10 seconds and counting as the Astronauts make their final check with the Pad. Tom Stafford has given a weather report himself. He says the weather looks good from the spacecraft. T-2 minutes and counting. T-2. All systems still looking good at this time. At this point in the count we have received a clearance to launch from the supervisor of Range Operations of the Air Force Eastern Test Range. Now T-1 minute and 40 seconds. We are now holding at T-1 minute and 40 seconds. We are going to recycle the countdown to T-3

minutes and holding. We have not received a report at this time on the difficulty. We are now at T-3 minutes and holding.

This is Gemini Launch Control. T-3 minutes and holding. One of the final guidance checks that was supposed to occur in a late moment in the countdown, a computer update or an update on the guidance system itself, was not received. As a result, the countdown was stopped. We have returned to the three minute mark and we are holding at T-3 minutes. This is Gemini Launch Control.

This is Gemini Launch Control. T-3 minutes and holding. Shortly after we resumed the count, we stopped the count at the one minute and 40 second mark. The reason, the Mark 3 Guidance System that was to update the launch vehicle and the computer, did not give the proper update. We have now fed it in and resume the countdown once again. We're now at T-2 minutes and 50 seconds and counting. While we were making that last announcement, another update was sent to the launch vehicle and spacecraft. It was acceptable. Now T-2 minutes, 35 seconds and counting. This is the launch azimuth information fed to both the Gemini Launch Vehicle Guidance System and the spacecraft computer which acts as a backup. We are now holding again at two minutes and 25 seconds. We are holding at two minutes and 25 seconds. We have once again recycled the countdown to three minutes and holding. T-3 minutes and holding. We will get a report to you on the difficulty as soon as we can check it.

This is Gemini Launch Control. T-3 minutes and holding. Our difficulty is still with the Guidance update for the launch vehicle and spacecraft. We have attempted to update the Guidance System and the spacecraft computer twice. It has been rejected twice. We have received a switch over to secondary guidance in the Control Center when this has occurred. In other words, the information being fed, for one reason or another, is being rejected. We have now sent another update. We have resumed the countdown. We're at T-2 minutes, 53 seconds and counting. We once again have a switch over on the update. We will start the count again shortly and recycle to T-3. We are holding the count at T-2 minutes and 40 seconds and once again recycling at the T-3 minute mark. Same difficulty. The launch vehicle and the spacecraft are not accepting the Mark 3 - the so-called Mark 3 - update. This is the command - radio command - guidance system feeding the update information. It's actually a computer - a ground computer - feeding update information to the launch vehicle guidance system which is primary guidance system and the spacecraft computer which acts as a backup to the primary guidance system during flight. Still holding at T-3 minutes. This is Gemini Launch Control.

This is Gemini Launch Control at T-3 minutes and holding. We're discussing our problem in the blockhouse and with the various mission directors at this time. We have no further

information other than the fact that the launch vehicle and spacecraft are not receiving the guidance update information in the proper manner. T-3 minutes and holding. This is Gemini Launch Control.

This is Gemini Control at Houston. Because we have missed our Launch Window on this initial orbit of our target vehicle, our Mission Director, Bill Schneider, has called a recycle of this launch for two days. We will recycle two days from now and attempt to launch Gemini 9 in pursuit of the target vehicle two days from now. This is Gemini Control.

END OF TAPE

MISSION COMMENTARY, 6/1/66, 10:49 a.m. Tape 42, Page 1

This Gemini Launch Control. We are now scrubbed with a recycle of two days. Here in the control center and also in Houston, we're attempting to determine what that problem was and why the information did not get to the spacecraft computer as it should. We do not know at this time whether it is a ground problem or what exactly the problem is. It is expected that this information will be learned in a comparatively short time. As soon as it is available we will relay it to you. What is known at this time is several attempts were made to provide update information to the spacecraft computer. The information is supposed to go directly to the spacecraft computer and not the launch vehicle guidance as reporter earlier. For one reason or another the computer was not able to accept this information. Either it did not get through or when it did get through it was rejected. We are trying to clarify this aspect at this time. As soon as we determine the cause of the difficulty we will pass it on to you. Of interest would be the astronauts reaction, we were busy trying to monitor the count at the time. The one quote I believe we have at this time is attributed to Gene Cernan, but we will double check this. The quote is "I just can't believe it." "I just can't believe it." This is Gemini Launch Control.

END OF TAPE

This is Gemini Launch Control. We are still checking in the control center to determine our problem on why the spacecraft computer did not receive the update for launch, shortly after the count was picked up at the three minute mark. It was rejected at least two times, so we received a rejection either that the spacecraft did not receive it or if receive, it was not acceptable. Now we have made a check on some quotes of the astronauts' reactions and at a time shortly after the second so-called rejection of the update data Tom Stafford was asked for his reaction and he said "Aw shucks", partly referring to the "Aw shucks" quote that was attributed to him on the previous launch attempt. We have a quote attributed to Gene Cernan which said "I just can't believe it." This is Gemini Launch Control.

END OF TAPE

This is Gemini Control. We have some information on the launch windows that will be available Friday. The first launch window will begin at 8:30 Eastern Standard Time and will last for approximately seven minutes. The second window will begin at approximately 10:15 a.m. and will have a duration of approximately 35 minutes. These are the windows we will be looking for Friday as this flight has been recycled and scrubbed for the next two days. This is Gemini Control.

END OF TAPE.

This is Gemini Launch Control. We are having a number of discussions on the status of our problem and we have a little more information to give at this time. As the project officials see it now this is basically what happened. When you pick up the count after the hold at T-3 minutes, the Burroughs Computer, the Mark three computer,had the information ready to send to the launch vehicle and spacecraft. An azimuth is sent to the launch vehicle by a hardline. We now have confirmation that this azimuth was received by the launch vehicle. The system of forwarding the information to the spacecraft is by radio frequency, by a radio signal. There is a complex system coming from the Mark three guidance through the Mission Control Center here at the Cape and then by radio frequency to the spacecraft computer. The information we have now is the spacecraft computer never did receive the computer updates on the several attempts that were made. That is that somewhere down the line before the signal could be sent there was a difficulty encountered. A signal was never sent nor was it received on the best information we have at this time. To repeat, the launch vehicle did get the update information it was supposed to by a hardline. This is Gemini Launch Control.

END OF TAPE.

GEMINI 9A MISSION COMMENTARY, 6/1/66, 11:30 AM TAPE 46 PAGE 1

This is Gemini Launch Control. The Gemini 9A crew Astronauts, Tom Stafford and Gene Cernan will return to their crew quarters at the NASA Kennedy Space Center, Merritt Island where they will have dinner shortly after their arrival. We expect that we will have a press conference coming up some 15 to 30 minutes from this time. This is Gemini Launch Control.

END OF TAPE