



Apollo 5 / AS-204 file

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APOLLO 5

PRE-LAUNCH PRESS CONFERENCE

NASA News Center
John F. Kennedy Space Center
National Aeronautics and Space Administration

Sunday, January 21, 1968

2:30 P.M.

Participants

William C. Schneider, Apollo Mission Director, Office of Manned Space Flight, NASA

Rocco A. Petrone, Director of Launch Operations, Kennedy Space Center, NASA

George M. Low, Manager, Apollo Spacecraft Program Office, Manned Spacecraft Center, NASA

Col. William Teir, Manager, Saturn I/IB Program Office, Marshall Space Flight Center, NASA

Col. Royce Olson, Director, Department of Defense Manned Flight Support Office

Christopher C. Kraft, Jr., Director, Flight Operations, Manned Spacecraft Center, NASA

Eugene F. Kranz, Apollo 5 Flight Director, Flight Operations, Manned Spacecraft Center, NASA

Mr. King: The countdown for the Apollo 5 mission is proceeding toward a planned liftoff time of 2 p.m., Eastern Standard Time, tomorrow, Monday, January 22. To cover some brief logistics, here in the News Center we will be open all night tonight, phone 783-7781, and we will have people available with up-to-date information on the status of the mission and the count throughout the evening and the early morning hours. We will be coming up, probably just about the time we come out of the built-in hold, with the commentary which starts at about T-3 hours and 30 minutes in the count. During the morning hours we will have up-to-date information on how we stand up to that time before the commentary begins. There will be a postlaunch conference at Press Site 2 at T + 60 minutes, and there will be a post mission conference some 7 1/2 to 8 hours following liftoff. This will take place in Houston at the Manned Spacecraft Center. It will also be piped in here at the News Center and at the Press Site at the Cape.

I would now like to introduce the five gentlemen here at the Cape and we have two gentlemen standing by in Houston who will participate in this afternoon's conference. From my right, here at the Cape, we have Col. Royce Olson, who is Director of Department of Defense Manned Spaceflight Support Office. Next is Mr. Rocco A. Petrone, who is Director of Launch Operations for the Kennedy Space Center and Launch Director for the Apollo 5 mission; Mr. Wm. C. Schneider, who is Apollo 5 Mission Director, Office of Manned Space Flight, NASA Headquarters. Next, Mr. George M. Low, who is Apollo Program Manager from the Manned Spacecraft Center. And finally, here at the Cape, Col. William Teir, who is Manager of the Saturn IB Program Office at NASA's Marshall Space Flight Center. And to clarify right away, I believe the name is correctly spelled in front of Col. Teir, and incorrectly spelled in several other places, it is T-E-I-R. Correct? And standing by in Houston we have Christopher Kraft, who is Director of Flight Operations for the Manned Spacecraft Center, and also from MSC, Mr. Gene Kranz, who is the Apollo 5 Flight Director. Now we will start with Mr. Schneider, please.

Mr. Schneider: Good afternoon, ladies and gentlemen, we have just completed our examination of all of the vehicles and the systems, the status of the network, the Department of Defense support forces, the aircraft, and last, but not least, the weather. And everything is as planned for our 1400 liftoff tomorrow. That's 1400 Eastern Standard Time. We did pick up the count this morning at about--at exactly--10 a.m., and as of right now, everything is proceeding smoothly and as planned. Now we will still plan our 6-hour built-in hold that we have always in our schedule, which ends at 10:30 tomorrow morning.

Now, this is the maiden voyage of a very complex vehicle, and it is a very busy plan, or very good plan, I should say, of about six and a half hours duration. During that time we will be firing the descent propulsion system, or the DPS (dips) as you may hear if referred to. We will fire that twice, the first one occurring just after four hours into the mission. Following the second and last DPS firing, we will stage the vehicle, and do a "fire in the hole" burning of the ascent propulsion system and then finally on the last orbit we will do the second and last firing of the ascent propulsion system, a firing to depletion. That will take approximately six and a half hours if everything goes as planned and will conclude the preplanned portion of the mission except for one activity I should mention. We still will be conducting one of our major exercises. We hope we will be monitoring the status of the S-IVB until it quits, and we do expect that that will last after that six and a half hours.

We will also have a couple bonus activities that we will gain out of this mission, the first one being an exercise designed to save the S-IVB vehicle which we will do on the first rev. And secondly, if the mission goes as we had planned, as described in the press kit, we do hope that we will have some consumables left and we will then go into a series of preplanned activities similar to what we have done in the past with the Agena, which, if you recall was at the end of the planned mission we did exercise some of the systems on the Agena to see how it would behave. Similarly, in this mission, we will be exercising those backup systems that we have not previously used and we will be using some commands that we had not used, just to see what does happen and we will be doing some reaction control system firings in some phenomenal situations. Essentially I believe that takes us up to twelve or thirteen hours, if we have enough consumables on board at the end that we can do everything.

In addition to that, since this is a relatively complex vehicle and it is a maiden voyage, the people in Houston, the flight control people, have come up with some preplanned ideas on what they would do in case they had various types of postulated equipment failures. I would like to say that we have these preplanned procedures but they do of course assume a failure, a type of failure, and they do of course assume that we do have sufficient time to activate the backup modes, and some of these do require some pretty fast stepping on the part of Gene Kranz and his people. So, while we have these modes, these alternate modes, and we are looking, we are grateful that we have them because many of these alternate modes will allow us to achieve most of our primary mission objectives, even in the event of some failures. I do caution you, however,

that while we have the modes available to us, it is not at all certain that if we are called upon to exercise them that we will. I think that is about all I've got to say about this mission, and I guess we can turn it over the Questions and Answers.

- Mr. King: Okay, we are ready to proceed with questions here at the Cape. We will also come to you all in Houston in a short while with questions from there.
- Mr. Dederer: A couple here first. One, how did the fueling go on the LM, and I understand it has been considered quite hazardous because of the involvement of the SLA and I just wondered how this fueling event went.
- Mr. Schneider: Doug, I consider that it went very well. It took a little longer than we had laid out because of extra precautions, but I believe that it went very successfully.
- Mr. Dederer: Another one, how long will the LM remain in orbit before it is expected to come back in?
- Mr. Schneider: Chris, why don't you answer that, or Gene?
- Answer: Primarily because we do not know the orbit the spacecraft will remain in after we get through, and certain tolerances on the cutoff condition. It will probably be anywhere from days to weeks.
- Mr. Salestead: Could you elaborate a little bit on what you did today as far as preparations were concerned? Did you fuel the LM for example?
- Mr. Petrone: The LM fueling was completed actually some days ago, I think it was about a week, you know you lose reference of time--we are working around the clock. But in terms of today, we say we picked up the count at 10 o'clock this morning, that is Eastern Standard. Up to that period of time, we had been doing many checks which we do in any normal recycle. We came out of our countdown demonstration, we dried out the bird, drained it, dried, go back in, make leak checks, and at the time we picked up this morning, we started installations of batteries. These are batteries that have to be activated some 48 hours before the mission. These are put in, or are being put in now, proceeding to a launch vehicle power up in about 3 hours on into power transfer this evening. The activities we had planned today are part of the normal count and a recycle coming out of our operation late Friday night. All the propellant loading of the spacecraft has been completed prior to picking up the count. The only loading we do during the countdown is aboard the Saturn IB with the liquid oxygen and liquid hydrogen.

- Question: I wonder if perhaps Mr. Low might be the right man to do this. If you could run down those systems, subsystems I suppose, which are not on LM-1 which will be on the LM which goes to the moon?
- Mr. Low: The first one that comes to mind of course, is the suit loop of the environmental control system. Since we are not flying men, we do not in LM-1 include the complete environmental control system, but only that part that is needed to cool the systems and enough oxygen to replenish the gas supply in the cabin. There are a number of other systems which are either not on the LM or are inactive. We are not carrying radars on this flight. Bill points out we do not have the landing gear, but by and large, the vehicle is a complete vehicle. It is particularly complete so far as the guidance and propulsion systems are concerned. The test is, insofar as LM is concerned, primarily a test of the structure, the guidance system, and the interactions of the guidance system with the propulsion system.
- Mr. Bergman: For Chris Kraft, I think. Chris, how tough is this mission as compared to past missions and what are the especially critical flight portions you are worried about?
- Mr. Kraft: I think I have to say that from the standpoint of the work that the spacecraft has to do, as well as the people on the ground, it is probably one of the most complex missions we have ever flown. The guidance system that we are using is literally the system which we are using for the descent and ascent from the moon, and we have had to "kluge" that system so that it is able to work in earth orbital flight. This means that the platform had to be displaced. We had no means of realigning that platform. We have to be very careful of the orbits we fly. This vehicle is meant to fly from here to the moon and not around the earth, and therefore its instrumentation system is a rather peculiar one in that we have no means of recording the data. This means that we have to keep our maneuvers over our tracking stations and try to get as much coverage as we can on each one of these revolutions. You put all this together, it is indeed a very complex mission from the standpoint of controlling the trajectory and monitoring the system.
- Mr. Dodd: Did I understand Mr. Low to say there is no test of life support systems in this particular mission?
- Mr. Low: Only a partial test of the life support system. The portion of the life support system that feeds into the pressure suit in a manned flight is inoperative in this mission. Thoroughly tested? Yes, it will be tested first of all in a very comprehensive ground test program. There is a

