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PARTICIPANTS:

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Mr. Jack King, PIO

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KING Okay. We're ready to start with our post-launch press conference here at Complex City, Manned Press Sight. Before I introduce these gentlemen on the stand We're honored to have with us at the press sight the active Administrator of National Aeronautics and Space Administration and his wife, Doctor and Mrs. Thomas Payne. Dr. Payne is down on my far right as far as these people up here are concerned. I'll introduce these gentlemen to you from your left. Dr. John Clark, who is director of the Goddard Space Flight Center, Dr. Kurt Debus, director of the Kennedy Space Center, General Samuel C. Phillips, Apollo Program Director, office of Manned Space Flight, and Dr. Werner Von Braun, Director of the Marshall Space Flight Center. General Phillips.

Good evening, ladies and gentlemen. PHILLIPS a pleasure again to meet with you on the occasion of another successful launch in the Apollo Program. As you know, from listening to the air-to-ground link as we all were here just a moment ago, Apollo 8 is now on its way to the Moon. And I'm - I certainly envy the crew the magnificent views that they might have at this point as they were describing it to us here a few moments ago. To be able to see the entire earth. I think by this time in their flight, they are something over 10 000 miles high and moving at about 25 000 miles an hour this morning. The Apollo 8 mission at this point has The countdown - the final terminal been a perfect mission. count which started last night at 10:00 was - during most of the night actually a hit, and even into the late minutes this morning, the count was proceeding with comfortable margins of time. The flight of the Saturn V was flawless in all of the maneuvers that it was expected to make. The performance of the spacecraft, as it has been seen reported by the crew and observed by ground instrumentation in the flight control center at Houston, has similarly been flawless. I think that it would serve little purpose for me to recount statistics that - where each of the times and each of the performance numbers so nearly exactly matches those that were distributed in advance. We do have almost 6 long days of mission remaining. the - some of the tough parts of the mission are now behind The vehicle is now about 6 000 000 pounds lighter than it was here a few hours ago. But there are some critical maneuvers remaining. The next critical maneuver will be the Lunar orbit insertion which is scheduled for 04 59 Eastern Standard Time the morning of the 24th of December and then approximately 20 hours later the next critical maneuver will be the trans-earth injection maneuver of the spacecraft which is scheduled at 6 minutes after I eastern standard time the morning of the 25th, and finally the re-entry and landing about 10 54 eastern standard time the morning of the 27th. We had every confidence in the capability of the equipment and

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PHILLIPS the crew to carry out the mission to which it was committed at the time we committed it. I think that confidence is so far justified, and I have every optimism that the mission will be a success on through the 27th. And I think with that I suggest we entertain your questions.

KING Direct your questions at this time.

KING Yes, go right in there. We'll try to
go across with the number of mikes that we have. Please
identify yourself and your organization if you would please.

QUERY General Phillips, would you say that in a two-part question, would you say that this mission of the Saturn V could have successfully taken the Lunar module with it and also would you be completely satisfied with its trajectory performance?

We'll handle the latter one first. PHILLIPS far as the trajectory is concerned and if you will recognize that numbers are still preliminary - the last report that I heard on the network before I left the Launch Control Center was that our mid-course correction now looks like it will occur at 6 hours and will require 7 feet per second, and that's almost down in the noise in terms of guidance accuracy. The Saturn V apparently accomplished the trans-lunar injection maneuver by driving it essentially right down the wire with tremendous accuracy. Regarding the lunar module, the - could this vehicle have carried a lunar module - we did in fact have LTA-B aboard which had a gross weight at takeoff of the order of 20 000 pounds at an earlier point in time is, I think many of you recall, we had planned that the 503 launch vehicle would carry LM 3 and the spacecraft 103 and it was last August that we made the decision to not fly the LM on this mission. So from the standpoint of physical capability, yes the LM could have flown on this mission in thinking now of performance and size. It would not, however, have been reasonable for it to commit it to a lunar mission because the lunar module, which has performed very successfully in unmanned flight, has yet to fly as a manned vehicle and we intend early next year hopefully at the end of February or the first of March to fly the LM in conjunction with spacecraft 104 on the 504 launch vehicle and we intend to operate it in low regardless to the first manned flight.

QUERY Dr. von
Braun. This seems to be the day that you've lived for most of your adult life. Is it hard to believe that it's really here?

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It seems to be the day that you've lived for most of your adult life. Is it hard to believe that it's really here?

VON BRAUN I can't deny that I'm very happy today. We have lived and worked for this. Do you know not just I myself, but all my associates and in this case it includes, I believe several hundred thousand people. To their success and needless to say, and gratifying to see that we're successful.

QUERY Dr. von Braun. Would you carry that further, sir? Would you be a little philosophical about what this means to the world and mankind. The first out of this world journey. The first people going to another place, a place other than the earth.

VON BRAUN Oh, I think this flight will be dully recorded as man's first step really away from earth about and to another heavenly body. They are right, and I think it will not be the only flight. There will be many, many flights to follow.

KING ..., did you have a question?

QUERY question about the first stage rocket,

which I understand fell very near to your ship in the

Atlantic.

CLARK None of us at the table have heard that report. I heard on our network that the recovery party that was in the plan to recover the casette that were dropped out of the first stage, also observed the re-entry and breakup and splash of the first stage. But that's all I've heard.

PHILLIPS We'll check on that for you. I haven't heard that report either. Maybe, but we'll get over in the control center also. Go ahead Sue.

Query General Phillips, it's continued to go with this flight and if you have a successful moon flight and no earth orbit in Apollo 9 will you be prepared to commit Apollo 10 to the moon landing mission?

as an earth orbital mission with the LEM and I hope we will be able to fly it at the end of February or the first of March. Our present plans are to fly Apollo 10, 2-1/2 or so months later. Again, as an all up vehicle with a LEM, manned. And our present plans are to fly that flight into lunar orbit but not to make a landing. To leave and to come back without a landing. We have the flexibility in our program to fly either more or less and I think you've seen us have to demonstrate that in many ways over the years. Our present plans, however, are not to, to not commit Apollo 10 to lunar landing.

UKS Go ahead.

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QUERY I've heard it said that if you were to decide, General Phillips, to land Apollo 10 you'd have to use the lunar module that is now scheduled for Apollo 11 make that change. Is that true and if so how far in advance of Apollo 10 planned launch date would you have to start doing that?

It is correct that the, that LEM 4, PHILLIPS which is committed to Apollo 10, does not have, is not capable of making the landing according to our present payload, weight, and performance scheme. LEM 5, which is committed to Apollo 11 is fully capable of meeting the payload requirements for lunar landing. So it is clear to that to carry out a landing we would, the earliest landing that we would expect to use LEM 5, and if we were to make the bold move that some of you are suggesting, which is to land on Apollo 10 equivalent then we need to be deciding rather immediately, because LEM 4 is well along in its check out here at KSC. There won't be very many days until LEM 4 will be committed to and installed on the launch vehicle. And its beyond that then the only practical scheme of landing on Apollo 10 there's a number, would be to by pass that vehicle and roll out the one that includes LEM 5. Those are all possibilities but I hasten to add that they are exceedingly optimistic possibilities and I think most of us in the Apollo program believe that as our experience continues to mount we will still feel that we want to fly the LEM twice before, as a manned vehicle before committing it to a landing. Now circumstances can change and we might want to excercise a more ambitious option and that's why I'm trying to discuss clearly what the possibilities are.

query And if we were, if you were to make such a decision would we then expect to see signs of it within the next say couple of weeks if you were going to have it?

PHILLIPS I think I can assure you without any fear of anybody contradicting me that you will not see any such signs over the next small number of weeks.

QUERY Few questions as usual. I gather from the forward flight that everything went well, but I was wondering if there was any extra vibration noticed at all in the POGO effect in the first stage and the J2's in the second and third?

VON BRAUN We had communications from the crew during flight which indicated there was no forward effect, what so ever in the first stage or second, or third stage flight. There was an indication of a very slight transient longitudinal vibration at the second stage condition point from, from lean to fuel rich mixture. WE have a mixture ratio shift, intentional mixture ratio shift in the second stage flight, where we go from more thrust to better fuel economy, so to speak. At this point the thrust is reduced by about 20 percent, and

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the crew reported that they felt this very distinctly. Now as a thought that we do support, the vehicle previously compressed like a spring as a bit unloaded, and so there was a sensation of a little longitudinal vibration for this spring unloading to decay but you cannot call that a POGO effect. This was expected and quite natural and nothing we can do about it or would do about it.

UKS

As a matter of fact, if I could add to that. It was reported and I didn't personally hear any of the crew say it but it was reported that the crew said that that was the smoothest first stage ride and the smoothest second stage ride and the smoothest third stage ride that they'd ever had. I think that was attributed to Borman but I think it bears out that this is now a very smooth POGO free vehicle.

UKS this gentleman has been waiting for UKS Okay. The hold up here and there you go.
QUERY My other question was that everybody expected a tremendous amount of interest, public interest in
this mission of course, but I think that the interest is
reached sort of fantastic portion, proportion, and I wondered
if all of the great interest and the billions of people that
will be following the flight might help you in getting more
money for post Apollo?

UKS I can't comment on that. I can only hope.

UKS Go ahead up here.
QUERY Could you tell us if the

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QUERY Could you tell us if the difficulties with the LM trainer will have any effect on the flight of the LM?

The recent accident with the lunar PHILLIPS landing training vehicle certainly does put a crimp in our plans for training flightcrews to carry out the lunar landing in the lunar module. The question of whether that accident has any effect on the design and the handling characteristics in the performance of the LM is, of course, being very carefully examined. There is no reason at this time to believe that the performance characteristics and handling characteristics of the LLTV relate to the handling and stability and performance characteristics of the lunar Many, many differences operating in an atmosphere versus no atmosphere, the LLTV uses a throttleable jet engine. So many differences lead me to believe that the control difficulties do not suggest difficulties with controlling the LM but that is being carefully re-examined. We will surely have to make some modifications to our plan for training flightcrews. What the modification will be is also being carefully studied as the investigation proceeds to get at the cause of that accident.

QUERY Good, that clears it up.

QUERY Do you have any report on the condition of the pad as compared also with the previous shot?

DEBUS

I have not heard the condition of the pad as yet. As far as we could see from the Launch Control Center with glasses, it was in very good condition.

QUERY In relation to the Earth, where geographically was the command module when the translunar coast began? You know, over what area was it?

CLARK Oh, the translunar injection burn was accomplished over the Pacific Ocean and we were tracking it or communicating with it through the Mercury, which is a station in the Pacific and the land station over which it passed next was - it was over the western Pacific.

KING If I could make an announcement, we are getting word from Houston that the air-to-ground conversations are continuing. I'd like to suggest that we consider coming to an end here shortly so we can all get back to the mission. Take this gentleman here and two up there and I'd like to complete it. I'm sorry we'll just have to put everything together if you have some other questions, we'll try to work it out here but I think we have to worry about everyone and I'm afraid this is the best route to go.

QUERY I gathered from General Phillips' remarks that the first midcourse correction will be minor. Do you know when we can expect the first SPS burn? Could you guess at the moment what MCC point?

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KING I think you asked when will we see the first SPS burn? Well, if the midcourse correction is as small as it was being reported before I came over here, then we will not use the SPS for that midcourse correction. In which case, it is unlikely that we will need the SPS for any midcourse corrections. In which case, it is most likely that the first time that engine will burn will be on lunar orbit insertion burn number 1.

QUERY Thank you.

QUERY Communications with the spacecraft seem excellent from what we've heard on the voice. I wonder if Dr. Clark will comment on that and tell us at this point who is handling communications - which antennas are handling it and how and how they switch over.

CLARK The improvement in communication, which was quite evident to all of us, was essentially a number of small increments, some of which were implemented on the spacecraft and others in the ground equipment. Primarily, in the ground operation procedures, involving mainly a correction of that link which is giving the best available communications rather than the previous super position as we used in Apollo 7 of several sources of the ground information. And, for the most part, in the last orbit, we have been using the unified S-band downlink and this is the link with which we'll be continuing around the Moon and so I think we can expect a continuation of the very good communications which we have enjoyed. Up till the time that we left the mission, the communication was by way of the omnidirectional antenna and I guess very close to the present time, the irectional antenna will be deployed and checked out. The three gound stations that will be handling communications during the lunar orbit phase will be the three so-called 85-foot dish sites at Madrid, Goldstone, and in Australia.

QUERY

This is now in contact with the spacecraft? If they are, when did they take over on that?

CLARK

Essentially, at the time of the burn
into the lunar trajectory. Goldstone took over at that time
and they are now prime.

QUERY There's a lot of interest with the regard to the decision to go into the lunar orbit. I wonder if you would take a few seconds to go over the criteria as to how that decision will be made.

CLARK I'm leary that I can answer that question in a few seconds. Let me just use a few seconds to comment. The original decision to not fly a LM was reported in very great detail at a press conference and briefing on the 19th of August. Between that time and the 12th of November, our total organization - NASA and the several companies involved put thousands of manhours into careful analysis of the total

CLARK . . . programs situation to provide a basis for making a decision and this, too, was reported in considerable detail on the 12th of November.

QUERY Dr. Debus, what is the roll out date now for the Apollo 9 vehicle and will you be able to use Pad A over again or will you go to Pad B?

DEBUS As I said before, I have not had a report as yet what the state of Pad A is. I assume it is in excellent shape so roll out of the 504 will be as scheduled, that is, in a week or two.

CLARK We'll take two more Mary and Red and I'm afraid that will have to be it.

QUERY • If you do succumb and commit Apollo 10 to our lunar landing, when would you do so? Would you have to wait until after Apollo 9 or would you make preparations with the idea sort of pending if Apollo 9 is okay?

CLARK We are continually taking stock of our total program situation and we do so especially after each mission. That, notwithstanding, I don't myself see a basis on the horizon for such a decision until we have flown Apollo 9, so I don't, at this point, see where we would have additional information or facts on which to base a decision until after we have flown Apollo 9. The situation could change, however, as the various events unfold in coming weeks.

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QUERY hold in coming weeks.

PHILLIPS Rex, before we take your question, on your previous question we have a report from the Department of Defense Support Unit that states the first stage was sighted by helicopters about 25 miles away from the nearest ship. This is the latest information we have — the nearest ship, this is the latest information we have on that.

QUERY Tell us, if you have yet chosen the men who will go on the Apollo 11 and will presumably land on the Moon, and could you possibly put us out of our misery now by telling us who they are.

PHILLIPS The crew selection for Apollo 11 has not been made. The crew selection through 10 have been made and announced. They have not been made beyond 10.

PHILLIPS I apologize for anyone I have - okay one over here because we have neglected you and that will be the final one, and I apologize to the rest of you, but we have to look after everybody's desires on this and I think we'll have to get back to the mission.

QUERY What contribution if any do you think this success would make toward assuring America's military superiority over the Soviet Union which is the President elect's secret policy.

Superiority in space I think has been PHILLIPS illustrated by accomplishments. I personally believe that the ability of our nation to operate in space is viewed by the world as one of the elements that constitutes part of our total strength and I believe that in part national strength as viewed between nations exists partly in the minds of men and is what people think is your strength, and I believe that our ability or lack of ability as compared with any other nation to carry space operations constitutes a very important part of our national strength and with those comments. I believe that Apollo 8 adds one more of very important accomplishments to our capability. It puts us a very large step closer to the national goal that we set for ourselves some years ago of carrying a manned lunar landing. And I think our strength as a nation is definitely enhanced by this and these kinds of operations.

KING General, I thought you had come closing remarks that you wanted to make.

PHILLIPS If I may and this question is a good basis for saying it. The Apollo 8 mission is tremendously important to — as a step in our progress toward a manned lunar landing of which my own confidence continues to be high we will be able to carry out sometime next year. I also believe that Apollo 8 and each of the manned flights is important to this country as a whole. Not only to the Apollo and its progress toward a lunar landing, but important

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PHILLIPS to the country. And I believe that the people who made it possible for this mission to fly and take off right on time this morning deserve a tremendous amount of credit. There are people in factories that go back over months and even years that deserve a tremendous amount of credit, but over the weeks that this vehicle has been put together, checked out, and made ready to fly here at the Cape I think there's been superiorly outstanding work done. And I'm certainly proud of the organization and I believe that the country should also give the people here at the KSC both Government and Industry a vote of thanks for getting this mission off as it was.

KING Thank you, sir. Over the drone of the engine I have one other announcement to make and that is that Mrs. Marilyn Lovell, the wife of Astronaut Jim Lovell is in the Cocoa Beach area and she will be happy to meet with the news media at 2 pm this afternoon. The location will be at the Pool at the Holiday Inn in Cocoa Beach. Thank you very much.