

NASA Facts

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**STS-107
Mission Management Team Telecon
January 27, 2003, 8 a.m. CST**

Good morning and thank you all for holding. I'd like to begin with roll call.

Question (Q): Do I have the MER Conference Room?

Answer (A): The MER is here.

Q: Ron Dittmore? Mr. Dittmore?

A: We're in one of the rooms here in the.....

Q: Thanks you, sir. The Weather Office?

A: NT Weather's here

Q: OSF Action Center?

A: Good morning, we're here.

Q: Alex McCool?

A: Yes, we're here.

Q: Colonel Jim Halsell?

A: We're here.

Q: LCC?

A: LCC is here.

Q: EMSR?

A: Good morning, we're on.

Q: Mike Keith?

A: We're here.

Q: Mike Leinbach?

A: We're here.

Q: John Cowart? Do you have Mr. Cowart's location?

A: Here.

Q: Mr. Fuller?

A: We're here.

Q: Scott Southwell?

A: We're here.

Q: Jack Keifenheim?

A: I'm here.

Q: And Ms. Ham's location?

A: We're here.

Thank you. I would like to remind all parties that the call is being recorded. If anyone has any objections, please disconnect at this time. Thank you.

Ham: Okay, and good morning. Um..we're going to start again with MOD and Phil can give us an update. Since our last MMT was Friday you'll have to go over stuff that happened over the weekend.

Phil: Okay. Just a (cough) excuse me. Going down the list, sort of summarize; the vehicle and the crew are still in great shape, doing well. It was a fairly quiet weekend. We're running prop margins about 500 lbs forward, 900 lbs aft. Our cryo margins uh. We were showing about 2 days 10 hours, we've revised that back to 2 days 7 hours based on in the end of mission attitude timeline that has now been stabilized to both the tire thermal issue and the heaters that go along with that factored back into the cryo plan. We're going to call it 2 days 7 hours.

Ham: Still got a good 4 days beyond the end of mission?

Phil: Still have plenty of margin. Um.. you know LiOH like I said before is protected plus 4 and cryo will easily still do that. Over the weekend we finished pulling together three potential IFM's for the cooling system. The three consisted of the removal of the orifice in the duct, uh the simple water cleanup which is just to take the, the ...get under the floorboard and use the vacuum to draw water out of the WSA without taking the cover off, and then the somewhat more invasive version, taking the cover off which requires shutting down the air flow. We've got all three of those completed, but at this time the temperatures in the vehicle are all supporting the cabin temperatures have come back down since we shut VCD down since they've finished and we're back down in the 74 degree range in the Hab as well as in the middeck. The crew has reiterated that they're very comfortable and don't think we need to do anything for temperatures, so MOD is recommending no action on any of those IFM's at this point. We also don't believe that there is any significant amount of water under the floor, but...and the crew has reported that they've inspected and don't see any water inside the cover looking through the holes or anything like that. But we are prepared to do any of those IFM's if it becomes required.

Ham: Okay, so in on the first IFM, uh Vanessa, the CSR okay with all that?

Vanessa: Yeah.

Ham: Not implementing?

Vanessa: Right, the only window that Spacehab still wants to do is just the inspection uh at uh I guess the day before landing (Phil: mmmm) and if there is any water, to clean up and do the gray taping, but none of the more intrusive IFM's at all.

Ham: You say that was the one that the crew thinks they have the water all cleaned up? What were they looking in?

Phil: There are some like 1-inch diameter holes in the WSA cover that they can look through and kind peer around in there, and they haven't seen any water.

Vanessa: and Spacehab is aware that the crew is, that they don't think there's any water in there. They just wanted them to look.

Ham: In the WSA?

Phil: Yes

Vanessa: Yes...

Ham: How long does that take?

Phil: 15 minutes.

Ham: Okay. You do that? Alright.

Phil: You want us to put that in the plan?

Ham: Yeah.

Phil: Okay.

Ham: You know if it's overcome by other events then I would make it a low priority, but if you've got the 15 minutes then go ahead and put it in.

Phil: Okay, um....just one other piece of data....you remember early in the mission we shut down the subsystem water loop pump 1 and switched to 2 because the delta P had fallen off. Uh, loop 2 delta P is also slowly decreasing, has been steadily since we turned it on again for about a half a psi per day. At that rate, it will get down to where loop 1 was when we shut it off about flight day 22 so we think we're in good shape, margin-wise, but just for your comfort level, we also think loop 1 is still usable, it was just degrading and we switched to the better loop at the time, so we still think that we have redundancy even if we to the point where ----

Ham: You think it's some kind of contamination or blockage? ... Is that what the Hab people are thinking? Yeah? Okay?

Phil: Like I said, we have an end-of-mission thermal ATL {attitude timeline} that satisfies everybody for water and tire temperatures and all of that sort of stuff and that's now been factored into the plan. Uh, we are working an orbit adjust plan...uh....we said we have Edwards 2-2-1 ending up through end of mission plus 2 and if we get down to past end of mission plus 1, we can get KSC EOM plus 4. We can get a second attempt if we go ahead and do an orbit adjust burn. So your choices are you could try to bring in a second Edwards on EOM plus 2 or we can bias and try and go the other direction and get a KSC on plus 4, but we don't really need to anything until post-EOM plus 1 or so and we can decide then which way we think we want to go.

Ham: Okay. We don't need to do any orbit adjust until after end-of-mission plus 1 did you say?

Phil: Correct. After the attempts on plus 1...

Ham: Alright.

Phil: And so what I'm telling you is that the FDO's {flight dynamic officers} are kind of bored and they are working on the EOM's plus 4 landing opportunities right now.

Ham: Okay, good.

Phil: We did get a little bit of delay...you know, email activity over the weekend due to the big virus deal uh, I think we had some delays in the crew email getting onboard because we couldn't get email into the Center and it shut down our ability to do email with some of the other centers but we managed with faxes and telephones just fine.

Ham: We're all right now, our Center's back up and getting email, right?

Phil: Yes.

Ham: I believe KSC is still down.

Phil: All right, okay. Uh, let's see.....Rad Deploy Plan....we've stowed the radiator and it was in the plan to go ahead and redeploy the radiator. It was going to be a dual rad deploy. We're down to thinking we can get by with just one and that's scheduled for 11 days 3 hours and we restow that one on 14 days 18 hours, a day before entry. Um....let's see if there's anything else in here.....I think that's basically all I've got to report, Linda.

Ham: What time again?

Phil: 14 days, 18.

Ham: 14, 18...okay.

Phil: We do have a ship-to-ship PAO comm. event today, orbiter to the station.....

Ham: Oh

Phil: A little after noon this afternoon, 12:40 local.

Ham: Okay. Thanks. From the MER.

MER/Don McCormack: Yeah, Linda, on Friday I mentioned the thermal analysis that we're looking at and I had stated that we had looked at five of six areas. Just wanted to let you know that we looked at the sixth location which was an area on the main landing gear door. The Integration folks think this is a low probability area as far as, you know, maybe sustaining a hit there but we went ahead and looked at it. We looked at.....

Ham: Are you talking debris?

MER: Yeah. Debris.

Ham: Okay.

MER: We looked at an area about the size of 30 inches by 7 inches, and, of course, you know, sloped, cratered out area, and our results there were similar to what we got elsewhere and that is, although local degradation of the door structure is likely if we were to have sustained a hit there, there is no predicted burn-through and no safety of flight issue.

Ham: A turn-around issue?

MER: Yeah, possibly

Ham: If it were hit there....

MER: If it were hit there, it's a critical area there on the door, but also the Integration guys had indicated that they thought it was a low probability location but it was still one that we went off and looked at.

Ham: Okay.

MER: So, that completes the thermal analysis from.. uh ..from the debris hit and with that, that's all I've got.

Ham: Vanessa

Vanessa: Okay, um, Phil's covered all of the Spacehab systems. The only thing else is that the AEM {animal enclosure modules} mufflers are on, they are back on cause the temperatures are low enough. The acoustics should be in an acceptable range and data and command there's been no change we're still operating as of Friday MMT. Spacehab payloads are operating nominally, they're getting great science. I've previously reported on the Biopack payload, the one that lost the refrigerator, the incubator, and the freezer. They did do an IFM to try to unclog a filter. There's no joy in terms of returning that full facility back up. They do have capability to do ambient processing and that's what they're doing with their samples. Expect to have very good science. Their PI's are working in that configuration and they're very pleased. Um...Also reported on MSTRS which is a DoD payload. They sent a software patch up on yesterday, and they have gotten a successful run, so things are looking up for them as well. CM2 continues to do great science and new and wonderful things. They completed 15 of their SOFBALL runs and the crew has been naming them all. They all have names, so . . . I'm not sure exactly why they're being name, but anyway they all have one. They've all been duly identified as space children. Uh, FREESTAR, they did get a dust storm on yesterday, and the weather conditions may be favorable for another one today . . . um ...There are some cyclones in the area but they are looking for more dust. I think there's another one coming up quickly. And we also did get real-time digital downlink via DTV one of the things we worked for flight. We've gotten all of the technical accomplishments done that we on this flight as well. And that's all I have to report. I guess . . . Well, one other thing to report is that I am working up the waiver for

the down weight and we're waiting on responses and they are coming in so I expect to have that put to bed before the next MMT.

Ham: All right. And on that issue, do we all know what weight we're working to here and what weight we're gonna analyze? I heard different numbers and what I . . . you got, the MER, you guys went to what weight, in analysis? two three three seven (2337)?

MER/Don McCormack: Yeah, for what we report on Friday, we'd run TSEP had been run for two thirty three seven (2337). It's my understanding that TSEP has now been run for two thirty-four eight (234 8) and that all looked good.

Ham: I believe it's not quite signed off yet, but if it's signed off then do you need to do any kind of analysis....

MER/Don McCormack: No, we talked about that this morning. We're good if the results of TSEP are good, we're good to two thirty-four eight (234 8).

Ham: Got it, and let's see, Don are you on?

Integration/Don Noah: Yes, and we did, Friday we did two thirty-three seven (233 7) and we stayed within cert boundary for the SSME bluing. Um...we haven't done anything on two thirty-four eight (234 8) and I'm not sure we really need to. Um, you know, you're going to get what you're going to get as far as the bluing, I mean, we've had analysis where we didn't predict the bluing and we got it. So, I'm not sure there's anything to be gained for us to go redo our analysis at two thirty-four eight (234 8).

Ham: Okay. Yeah, I don't think you need to go redo an analysis so uh I don't know if you, Don did you guys already respond to the chit?

Don McCormack: Yeah, we responded to the chit. Of course, the chit showed two thirty-three six (233 6) and some changes expected and two thirty-three nine (233 9) is the worst case...

Ham: Right

Don McCormack:so we really responded to the chit as a, really a 234. um, But, you know, if there's something else we need to respond to for two thirty-four eight (234 8) if that's where folks think we're going to be....

Ham: Well, I don't know, you know, I think it's MOD that does the TSEP's and they got the two thirty-four eight (234 8) and say it's okay.

Engelauf: Yeah, I frankly don't know where two thirty-four eight (234 8) came from. The FIDO's that did the run, um, were not in this morning so I wasn't able to get clarification on that, but, as far as what we're projecting for the actual vehicle weight, we

think we're going to be a lot closer to two thirty-three seven (233 7) than than than above two thirty-four (234).

Ham: We should probably have MOD just put a one-liner in in response to the chit, if you respond to your own chit. However you do your paper work, it said that we did TSEP out to two thirty-four eight (234 8) and we're okay up to that point. And now we'll let Integration put their number in there and when we...oh....we've got Rod Jones here whose....Richard, sorry....

Richard: I um have to clarify on the two thirty-four eight (234 8). That basically fell out of our SIM {simulation}, I think. We initialized our data at a high enough number, targeting for two thirty-four five (234 5)...um, and we just got a little bit higher weight...

Ham: Yes...

Richard: ...and as far as why we ran two thirty-four five (234 5), um, I was in some discussions with the MER yesterday and it seemed to be a high priority, so.....we obliged.

Ham: All right, whatever we did run, we'll just document it in the chit and say we're okay up to that weight and if the SSME nozzles are only whatever number they did, two thirty-three seven (233 7) that's fine too. We can just document it in the waiver.

Vanessa: Okay, so we'll do the waiver at two thirty-seven (233 7) and just document that we can go as high as two thirty-four eight (234 8) for TSEP purposes.-----

Ham: Alrighty. Anything else on the down weight? I think we're done analyzing. Okay. Let's see, is there anything else from the MER?

MER/Don McCormack: No

Ham: Okay. Oh yeah, we did Vanessa. Vanessa did you have anything else?

Vanessa: No, nothing else from me.

Ham: Okay, FCOD?

FCOD/Bob Cabana: I have no issues, Linda. Obviously, if there's any talk of extensions, the crew said that they would be more than happy to oblige. They're in good spirits and happy to stay longer.

Ham: Okay. The only reason we do that is for weather.

FCOD: I understand.

Ham: Okay. Um, Sam?

Sam: Crew is in good shape and working no issues.

Ham: Good. Integration?

Integration/Don Noah: Yeah, we're ah don't have anything else to report and we're done with down weight analysis.

Ham: Good. Thanks. Um, Loren?

Loren: Nothing else this morning, Linda.

Ham: Vehicle Processing?

Vehicle Processing: Nothing to report, thank you.

Ham: Marshall Projects?

MSFC Projects: We have nothing, thank you.

Ham: Launch Integration? Nothin'?

Unidentified: Nothing here.

Ham: Okay, and Safety?

Safety/Scott Johnson: Nothing.

Ham: Okay, uh, our next MMT will go over the entry briefing and it will be Thursday, 8 o'clock. Thanks for your support.

- end -