

# NASA Facts

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## **STS-107 Mission Management Team Telecon January 17, 2003, 7:50 a.m. CST**

Good Morning, we are ready for roll call. Do we have everyone here?

We do...

Ron Dittmore "here"

Weather Office "we're on"

OSF Action Center "Good Morning we are here"

Alex McCool "right here"

Col. Jim Halsell "yeah we're here"

EMSR "Good morning we're on"

Mike Keys "we're here"

John Cowart "yeah our office is here"

Mike Fuller "Mike Fuller is here"

Scott Southwell "good morning"

Jack Keifenheim? "KSC Payload and Processing is here"

Don Hamil "we're here"

Thank you, and Ms. Ham at this time I would just like to inform all parties that today's call is being recorded. If you have any objections, you may disconnect. Thank you, you may begin.

Linda Ham: OK and Good morning and welcome to the first STS-107 MMT, uh. We are going to start with MOD. Uh great launch yesterday, and I'm sure everyone is real excited about getting on orbit here and finally getting under way with this science mission. We have Phil here for MOD.

Phil Engelauf: Ok, everything seems to be going great. The crew is pretty much on the timeline. The blue team got to bed a little bit late yesterday, we let them sleep in an hour. And we shifted the red sleep time an hour later to go along with that, but got them back up at the regular time. And we're back on the preflight timeline as far as the sleep cycle is concerned. And that had actually been discussed preflight with the crew because we kind of anticipate this on the day one thrash of getting everything put together.

Linda: Blue team is commander

Phil: um...

Linda: Blue folks

Phil: Blue team is the PLT's team

Linda: OK

Phil: Red team is the commander's team. Blue team is the first one to go to sleep and um... as far as the rest of the timeline like I say, the crew is essentially on the timeline from the payload standpoint. We wound up a little bit high in altitude and AOS times are going to shift about a minute a day later and we are taking that into account with the trajectory uh... with the ephemeris in getting the comm stuff all spiffy up to accomplish that. Everything seems to be going well with a couple of minor operational issues. We appear to getting good Ku band in data to the ground, but we are having trouble processing some of the Spacehab experiment data KU, Channel 2 we think its an EDSMU problem and um...they worked on it a little last night, that's a box right here on the ground in the POC {Payload Operations Control Center}, they worked on that a little bit last night and didn't make too much headway. They started trouble shooting again this morning uh... we think this is a payload provided equipment problem. We are standing by to help with whatever resources we can apply. But uh...we think it's in Spacehab's hands.

Linda: OK, so you think the box is one that's in the POCC that we usually don't use because it's provided by the customer?

Phil: Right

Linda: OK

Phil: And our functionality of the KU-Band 2 coming down to the ground appears to be good.

Vanessa Ellerbe: It's their ah..EGDA, it's their data grabbing unit on the ground, It's in the POCC.

Linda: Here in the MCC . . . correct? OK. Mission folks coming in to help troubleshoot?

Phil: The HAB team is working on that, we got people available to help them...but we're not sure what we can do for them right now. Right.

Vanessa: There's one MOD expert, Rick Kraesig? is going to come down to help them out.

Linda: We did a test on all that stuff, right?

Vanessa: Yes we did...we did testing....prelaunch testing, we ESTL testing, we did IVT at the cape, we did our pre-ascent ver/val {verification/validation} We did the ver/val, everything checked out at that time. So it's probably a configuration problem somewhere between the network and getting into the box itself. But they are going to work on it today.

Phil: Yeah I think the next step is they have a data tape that they use as part of the ver/val that they were going to play thru the system today here on the ground to make sure it's still working the way we thought it was working when we verified it.

Linda: OK

Phil: Let's see. Last thing just before we came in, we did the Cryo O2 heater sensor check in Tank 7 on the Cryo pallet O2 Tank 7. Apparently the A heater did not work in the manual switch position. We do still have the B heater uh...don't know if they've uh... been able to verify yet whether that heater will come on in the auto position. I don't think we've been trying to use that tank yet, so they just discovered this. The uh...EGILs are going to go up and work up both the troubleshooting plan and possibly move up the priority of using up that tank if we are down to using a single heater but otherwise everything seems to be doing pretty good. The crew is...the crew is moving along and sounds great at least from what we can tell operationally.

Linda: Did you say, you did see the B heater cycle and it's OK?

Phil: Yeah

Linda: OK, allright...

Phil: someone got the report

Linda: OK

Uh...Back on the Ku Channel 2, what's the impact Vanessa?

Vanessa: We are looking at that Linda. Right now all of the payloads have been activated that were planned and we have received all the data. We had to do some rescheduling last night, but all of the payloads have gotten their data. Right now the heaviest user doesn't come on line for another 36 hrs., We'll need to fix the problem by then. The good news that we just found out was that they do have on board recording capability so they are not going to lose the data, its just we'll have drop outs when the data comes down to the ground.

Phil: And the recorded data that we seem to bring down on Channel 3, I think seems to be good, it looks OK.

Vanessa: Yeah, right

Linda: Good

MER/Don McCormack: Ok um...we're tracking a couple of problems down there and um... one of them is a failure of the ICOM B {Internal Communications} in the Spacehab, and I don't know if we know exactly where that problem is, whether or not it's on the orbiter side or the HAB payload side there. Uh in the other you know Phil just mentioned this O2 Tank 7 A and that's the first we had heard of that is on the way up here, so I don't have anything on that one right now. Yeah, but the one item that we talked the most about here this morning, is in the currents we saw in A/C 2 Phase B, which we're calling a sluggish current response that was seen during the operation of three different motors. The first time it shows up in the data is when Vent doors 8 and 9 motor, it's on motor 2 when they were opened um...prelaunch that sequence starts run at T minus 31 seconds but when those motors were open you see a normal response and um...in Phases A and C, but in Phase B you see sort of an initial spike, like the motor is about to run then the current slumps down for a few seconds and then recovers. Though we saw that once with...you know we saw that shortly after we got on orbit and we thought we might have had a motor problem or just...we were evaluating that one, but than when we went to open a payload bay door and deploy the Ku-Band we also saw...essentially the same signature on the KU-Band deploy motor 2 and the port payload bay door motor 2. And all of these are, you know the same sort of signature on AC 2 Phase B. So we are off looking at trying to find the commonality between you know these 3 events obviously three different motors but they are also 3 different MCAs, 3 different circuit breakers uh... they're all on panel MA73C, some relatively close together in location the circuit breakers on that panel...um...the bottom line is at this point and time were really not...and the problem is not manifested itself, ...anywhere else. We have not seen it in voltages, so I mean we've not been able to isolate the problem to a particular cause.

Linda: Are there any other pieces of hardware that have operated off the same circuit breaker?

MER/Don: Yeah, there's other hardware that's operated off the same circuit breaker and operated nominally, um... so um... and this one is kind of a head scratcher at the moment. So um...

Linda: Is it the data somehow?

MER/Don: Well we thought you know...you know...could it be you know...the sensor does seem to be one thing that is common but...but when uh... this occurs, one of the occurrences you see when the current is sluggish...you see an increase on the other two phases. So...um...so it doesn't seem to be instrumentation right...it does seem to be a real event, so...um (Linda: intermittent) yeah and apparently an intermittent real event, so... So anyway, um...with all that um...there's no impact that we see obviously you know...the motors run and run fine on two phases provided we got the other good motor, which is what we got here...so...um...we don't see...see any impact but we'll continue to evaluate obviously...um...yeah but I think that is all I got on that one Linda...(Linda: alright) that's it.

Linda: And we have the radiators deployed, right?

MER: The port radiators, (Linda: the port radiators) if I remember that's deployed, correct.

Linda: OK, do we leave it there all mission?

Phil: I believe that's right Linda. )...

Linda: OK

MER: That's it

Linda: OK, Vanessa

Vanessa: In all as I said before the Spacehab ah...payloads they are all operating nominally um...great science um...Freestar as well, operating nominally...um they are just ecstatic at the science they are receiving and...no issues that we're working other than just KU (Linda: right) right.

Linda: Flight Crew

Flight Crew/Bob Cabana: No issues Linda, the um...crew is doing fine, good health and (clears voice) they're glad to be on-orbit.

Linda: Um...Space and Life Science...

Space and Life Science: yeah we're in good shape.

Linda: OK, Integration...

Integration/Don Noah: Let's see...uh on a quick look post flight report. Ascent is very nominal...ah there's no indications for bolt hang-ups during this post um...the only item was uh... the SRB's were uh...slightly hotter than predicted but, that's...you know a normal occurrence...ah...the throttle bucket was also nominal. That's it.

Linda: Ok, so even had hot SRBs even with the adjustment that we made prelaunch?

Integration/Don: ah??...Yes

Linda: Ok. Interesting...um...Loren

Loren: um...I've been um...from the mission control center here...um...during the SRB recovery looks like one of the forward skirts, uh...left hand forward skirt...probably some um.. buckling damage that you...they may have more words on that...um...when you get to the Cape...that's the only thing so far. There was a previously repaired forward skirt...from previous damage.

Linda: OK, let's see what the Cape or Marshall have to say. Uh Shuttle Processing....

Shuttle Processing: Good morning...yes both SRBs are in tow as of yesterday afternoon...I was aware of that ... buckling evidence on the forward skirt...and it has been passed on to Marshall . . . and we're expecting the SRBs to be back at KSC later this afternoon and we'll be ready for open assessment on Monday morning. And the pad postlaunch inspections and film reviews reveal no significant findings to date, and that's all I had.

Linda: OK...Randy Siegert?

Wayne Hale: Well you got Randy and Wayne here this morning and we just want to report everybody's all smiles here.

Linda: That's good...um Marshall Projects

Marshall Projects: Ah...nothing...nothing this morning everything looked nominal and to the best of our knowledge there's no potential IFA's

Linda: OK...Safety...

Safety/Scott Johnson: Nothing Linda

Linda: Allright

Phil: One last I forgot (Linda: OK) To report your Cryo margin...ah...we're about 22 hrs. margin right now...Cryo use...Cryo power level is about 3 Kw below the predicts yesterday...so um...we'll see where that goes.

Linda: Why do you think that is? Cause of the Hab or because of the payload?

Phil: It's a little hard to differentiate, (laughing in the background) you know what I mean its all in one bus going back there...so um...I think probably we'll have to watch for a day or two and see how it stabilizes.

Linda: Cause if it's the Hab it's going to be beneficial on 13A.1 and 12.A1...that would be great.

Phil: Yeah some of those systems aren't common, this is the research double module as (Linda: Yep) opposed to the passive module (Linda: right) also. There's a...since this is the first time a lot of that equipment has run...I don't know but I guess it's reasonable to make a guess...that...maybe we're over estimating on the power draw for some of the equipment the first time around and once we get some flight history on it we'll be a little smarter.

Linda: OK, I know that the customer isn't going to want another day, cause we've been thru that prelaunch. They want to land after 16 days.

Phil: Yes, {muffled} 3Kw (muffled laugh)

Linda: Ok...um...thanks for your support, our next MMT is going to be 8:00 o'clock on Tuesday. We are trying to avoid the...uh...the holiday for those who have Monday for the holiday, so...Tuesday 8:00 o'clock same place.

Thank you

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