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PRESS BRIEFING

MICHAEL GRIFFIN, NASA Administrator

[Moderated by Dean Acosta]

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1 P R O C E E D I N G S

2 MODERATOR: We are going to go ahead and get
3 started. The Administrator has given us some time. So we
4 are going to go ahead and get started for this press
5 briefing with the Administrator Michael Griffin.

6 We have a big group of folks here at KSC of
7 reporters. I will go around the table here, and then I
8 will go down the list of the folks that are on the line to
9 also be able to ask questions. Again, we have about 40
10 minutes. Keep it to one question and one follow, and that
11 way we can try to get as many people as we can.

12 ADMINISTRATOR GRIFFIN: Hey, Dean, I had a couple
13 of opening remarks too, if that is okay.

14 MODERATOR: Absolutely. I was going to hand it
15 to you next, sir. All right. Go ahead, Michael.

16 ADMINISTRATOR GRIFFIN: Okay. I wanted to give
17 the media folks some late-breaking information that we have
18 had that hasn't made any of the press so far, and I think
19 you will find it pretty exciting.

20 This is the cleanest flight practically that we
21 have ever seen. The Flight Control Team is executing above
22 flawlessly. They haven't flown a Shuttle for 2-1/2 years,

1 and the Control Team is doing better than perfect.

2 The astronauts on orbit are executing better than
3 perfect. Eileen Collins flew a minimum propellant
4 rendezvous yesterday, a very complicated sequence, did a
5 perfect docking. All the equipment is in great shape. The
6 Orbiter has had I think one minor flaw, maybe a tape
7 recorder. Almost everything we did on the external tank to
8 get it ready for flight has worked.

9 We expected, and we have seen, a dramatic
10 reduction in the amount of debris which was generated.
11 Looking at the photography we have seen so far on
12 Discovery, we have had about I think around 25 dings as
13 opposed to a mission average of about 145. So the
14 engineering work we did on the external tank has reduced
15 scarring on the Orbiter by a factor of about 6, and I
16 thought all that was really kind of nice and that you
17 should know it.

18 MODERATOR: All right, Mike. Thanks. Thanks for
19 those opening remarks.

20 We are going to go around the table here with
21 some questions, and then we have a couple people that are
22 also on the phone line that we will get to after we go

1 through here at JSC.

2 ADMINISTRATOR GRIFFIN: Okay.

3 MODERATOR: All right. We will start off with
4 Bill Harwood.

5 QUESTIONER: Hi, Mike. Bill Harwood, CBS.

6 Just a quick question. I guess looking, I think
7 there is a sense amongst some of us anyway on the outside
8 looking in that if this is a problem that if it is not
9 followed in relatively short -- and I use that word
10 advisedly -- then all this talk about is it worth
11 continuing to pump money and time into this since you are
12 going to retire it anyway.

13 It strikes us that there must be some deadline
14 out there facing you to resolve something like this, and if
15 it goes too long, that's not a good thing in terms of
16 long-term survival. Could you maybe just talk about that,
17 just philosophically how you see that issue?

18 ADMINISTRATOR GRIFFIN: Well, I could, I guess,
19 but we really haven't had time to come to grips with those
20 kinds of issues. I mean, if we thought it was going to
21 take us another 2-1/2 years to resolve it, Bill, I think
22 your point would be well taken, but in fact, as I just

1 said, almost everything we did to improve the external tank
2 worked. That is now really pretty clear, and we are going
3 to be continuing to scrub that, but that is what we are
4 seeing. And you know I am an engineer, and that is what I
5 look at first.

6 Now, we absolutely missed the PAL ramp foam, and
7 we missed it not because we didn't ask the question, but
8 because we did ask the question, I am told. I am now
9 speaking about events before my time, but I've checked into
10 it, and we did ask the question about whether we should do
11 something different with the PAL ramp and we studied it
12 exhaustively. You know what, we came to the wrong
13 conclusion, I mean very obviously, because we don't want
14 pieces of foam like that coming off.

15 But to extrapolate from that fact and say that we
16 can't fix it, I think has just abridged too far. I think
17 we are going to fix it. I think we are going to fix it in
18 short order, and we are going to get back flying.

19 You know, all we ever said the other day was that
20 we are not going to fly again until we fix it, and I think
21 that is the right thing to do, but we don't expect this to
22 be a long drawn-out affair, to be honest with you. If that

1 changes, we will tell you, but that is what we are looking
2 at now.

3 QUESTIONER: Just a very, very quick follow, if
4 you take the PAL ramp issue completely out of this
5 equation, the foam that came off the inert tank flange and I
6 guess the architecture divit, I mean both of those were
7 above the allowable criteria. So it struck me that you
8 have a problem even if the PAL ramp hadn't come off. How
9 do the other issues play into that equation?

10 ADMINISTRATOR GRIFFIN: Well, we clearly need to
11 fix those, and so we have three of them. Now if we compare
12 that performance to prior performances of the external
13 tank, I don't need to tell you that the difference is huge,
14 and that is what I was alluding to earlier. Almost
15 everything we did to improve the external tank worked.

16 We said at the start this was a test flight. We
17 said that we would not be able -- without putting this
18 machine into flight, we said we would not be able to
19 evaluate how well we have done. Now we have some real
20 flight data, and we can go figure out what we need to do
21 next.

22 QUESTIONER: Thank you.

1 MODERATOR: Thanks, Mike.

2 Next, we are going to go to Marsha Dunn.

3 QUESTIONER: Hello. This is Marsha Dunn of the
4 Associated Press.

5 Yesterday, Wayne Hale said he told the crew that
6 he was mortified about the foam loss, and I am wondering,
7 are you mortified, and do you take a sense of
8 responsibility for the big piece that came off?

9 ADMINISTRATOR GRIFFIN: Hi, Marsha. Always good
10 to talk to you.

11 No. I am not mortified. I have had a 35-year
12 career as an engineer in the space business, and I have
13 seen more than one mistake. We made a mistake.

14 Wayne has spent 2-1/2 years along with many
15 others on the team trying to get this vehicle back ready
16 for flight. He didn't expect anything like this to happen.

17 He didn't want it to happen. None of us did, and he is
18 embarrassed. I can understand that, but all we can do at
19 this point is move forward.

20 In answer to your question do I take
21 responsibility, absolutely. The Senate confirmed me in the
22 evening of April 13th of this year, and from that moment

1 on, NASA was my responsibility, and there is no possible
2 equivocation on that point. So we will fix this.

3 MODERATOR: USA Today.

4 QUESTIONER: Hi, Mike.

5 You know, I think there's no question in
6 anybody's mind now, if there ever was, that the Shuttle
7 needs replacement, but I am wondering what you can say to
8 people who worry that the next vehicle down the line won't
9 be particularly safe either since you have done your best
10 to make this one safe and still had some problems.

11 [Audio break.]

12 ADMINISTRATOR GRIFFIN: [In progress] -- I have
13 pointed out six times cleaner than the average, across 113
14 missions. So the fact that we have three or four things
15 that we still need to clean up from our first test flight
16 in 2-1/2 years, I am not a spin kind of a guy. You all
17 know that, but in the world of engineering, we did pretty
18 well.

19 QUESTIONER: Just a quick follow. I wonder if
20 you think this complicates the attempt to build the CED.
21 Some Members of Congress in some editorial pages are
22 already expressing a little bit of a loss of faith in the

1 agency.

2 ADMINISTRATOR GRIFFIN: Well, if anything, I
3 would think that this would want to make people make sure
4 that we did have the proper funding and the proper policy
5 direction to build the CED.

6 I think at the administration level, we certainly
7 have that policy direction, and we have been the fortunate
8 recipient of a huge amount of congressional support on that
9 point. I just think that this makes it even more clearer
10 that we need to retire the Shuttle in an orderly way, and
11 we need to set about building the CED.

12 Now, I would remind you, we had over 380 Members
13 of the House of Representatives vote to support the NASA
14 bill.

15 MODERATOR: All right. Irene?

16 QUESTIONER: Thank you. I am Irene Klotz with
17 Reuters.

18 I would like to know what options you are looking
19 at if the Shuttle's next flight is postponed until say
20 early the next year or so with the deadline on the Russian
21 supply of Soyuz vehicles to the Space Station coming up in
22 April.

1 ADMINISTRATOR GRIFFIN: We are working with the
2 administration and Congress on a proposal to relieve the --
3 you are talking about the INA or the Iran Non-Nuclear
4 Proliferation -- I can never say that -- Act.

5 QUESTIONER: Right.

6 ADMINISTRATOR GRIFFIN: We are working with the
7 administration and with the Congress to get an exemption to
8 the crucial clauses in that bill which apply to the
9 International Space Station.

10 We hope for and expect a successful outcome to
11 that in which case continuing to purchase services from
12 Russia will not be a problem.

13 QUESTIONER: Is that your only option?

14 ADMINISTRATOR GRIFFIN: Well, again, I think you
15 have gone into speculation by saying that we won't be able
16 to fly the Shuttle until early next year. At this point,
17 we don't know that. We are not conceding that.

18 Yesterday, I met telephonically with the
19 Associate Administrator Bill Readdy and Space Station
20 Program Manager Bill Gerstenmaier. We took two specific
21 actions. One is we are putting together a NASA Tiger Team
22 to look at foam remedies with emphasis on those that have

1 not previously been considered or what we need to do to
2 address the PAL ramp and, as I think Bill Harwood pointed
3 out, a couple of other areas where we need to do better.
4 So that is one.

5 The other thing is the crew of Discovery and on
6 the current Space Station assignment are looking at what,
7 if anything, we can do while Discovery is there to
8 pre-position the Station for a longer gap between flights,
9 should there be one. So we are paying attention to the
10 issue that you are raising, but it would be way premature
11 to give you a set of actions because we don't have them.

12 MODERATOR: All right. Let's go to Guy next.

13 QUESTIONER: Hi, Mike. Guy Gugliotta here.

14 MODERATOR: Can you hear that, Mike?

15 ADMINISTRATOR GRIFFIN: Barely. If you could
16 speak up, Guy, it would be a little better.

17 MODERATOR: Guy, go ahead.

18 QUESTIONER: Mike, a very specific question. Is
19 there a point at which you are going to perhaps have to
20 take the Hubble mission off the table or reconsider a
21 robotic mission?

22 ADMINISTRATOR GRIFFIN: We can't reconsider a

1 robotic mission. That has been carefully considered by
2 everyone who has a right to hold an opinion on the subject,
3 and including me and a team that I lead up until the time I
4 was nominated for NASA. Everyone who has looked at it has
5 concluded that within the time frame that we need to in
6 order to get to Hubble and even with a very large amount of
7 money on the table, a robotic service in mission is not
8 feasible. So that is a dead issue.

9 With regard to whether we can or cannot service
10 the Hubble, I can only go back to the answer I have given
11 since literally the day of my confirmation hearing. We
12 want to service Hubble. If we can, we will. We won't know
13 if we can until we have done the two test flights that
14 comprise our Return to Flight sequence. That is where we
15 are, and I can't make it any clearer than that.

16 MODERATOR: All right. Next is Mike Habbage.

17 QUESTIONER: Mike Habbage with the Orlando
18 Sentinel.

19 A couple of quick questions. First, just in
20 general, to follow up on some of your earlier answers, do
21 you see any way that the debris shedding event on Tuesday
22 is going to ultimately impact the longevity of the Shuttle

1 and its 2010 retirement date? Based on the people you have
2 talked to, what you have heard from the White House and
3 Congress, if anything, do you see it factoring into that,
4 or do you plan to press ahead just as before?

5 My second question, real quick, is in response to
6 Irene a moment ago, you mentioned that you weren't
7 conceding the year. If my math is right, you guys have a
8 couple of weeks in September, a window that opens in about
9 5 weeks, and then about 4 days in November after that.

10 How could you guys possibly hope to hit either
11 one of those opportunities?

12 ADMINISTRATOR GRIFFIN: By being smart and
13 working hard, and if we can do those and are successful,
14 then we will capture one of those flight opportunities, and
15 if not, it will move, but we don't start out by assuming
16 that we can't succeed.

17 With regard to guidance from the White House or
18 Congress, the only communications I have had so far have
19 been with Chief of Staff Andy Card, and he has expressed
20 directly to me full confidence in NASA and the engineering
21 team to resolve our issues. That is where we are.

22 MODERATOR: All right. Mark?

1 QUESTIONER: Mark Karo from the Houston
2 Chronicle.

3 Can you tell us some actions that you are taking
4 now, even with Discovery in orbit, to get to the bottom of
5 what liberated this piece of foam and what options might be
6 out there that could help you get to a quicker flight --
7 the flight quicker than later?

8 ADMINISTRATOR GRIFFIN: Well, I loved being an
9 engineer, and giving half of an opportunity, I still love
10 it, but to be honest with you, you are at a level of detail
11 below what I can handle, and I think the guys that could
12 help you with that are probably down on site in Houston.

13 QUESTIONER: But do you think there is something
14 out there that could be crafted rather quickly and tested
15 rather quickly?

16 ADMINISTRATOR GRIFFIN: I can't speculate on
17 that.

18 I do believe that our team will aggressively
19 pursue exactly such options. We had one big piece of foam
20 come off. We had an awful lot that didn't come off that
21 used to come off, and I have confidence that the guys can
22 find a way to fix this.

1 MODERATOR: John next.

2 QUESTIONER: John Schwartz from the New York
3 Times.

4 You said a couple of weeks ago that you hadn't
5 made any tough decision in your tenure at NASA. First of
6 all, just point of question for the reporters, were you
7 serious, or was this deadpan that we missed? And second,
8 would any of the things we are talking about -- early
9 retirement, trying to push the Shuttle deadline back to
10 accommodate Station construction, any of these things --
11 would those constitute tough decisions for you?

12 Thank you.

13 ADMINISTRATOR GRIFFIN: Interesting question.
14 Thanks.

15 No, that wasn't deadpan. I meant it. Everything
16 that we have had to do since I came on board has been
17 obvious from my perspective.

18 We have a very attractive, very desirable, very
19 clear mission statement from the President. It has enjoyed
20 unusual congressional support.

21 What I have tried to do in the 3 months and a
22 week or so since I have been here has been to get our

1 agency moving out down the road to implement that guidance.

2 Those policies are very clear. They could hardly be
3 clearer, and so our marching orders are very
4 straightforward.

5 So the decisions that I have made, that my team
6 has made since coming on board that have been written about
7 more than I would like, have really been very
8 straightforward decisions with just no conflict from me.

9 Regarding Shuttle retirement date, that is a
10 written piece of policy guidance from the White House. To
11 be honest, I report to the President. If he wants me to do
12 something else, I am sure he knows my phone number. Until
13 I hear from him, we know what our direction is.

14 MODERATOR: Next is John Kelly.

15 QUESTIONER: John Kelly from Florida Today.

16 Dr. Griffin, my question is, did you all have
17 some open studies going on, on exploration architecture and
18 Shuttle Station? And obviously, as Bill Harwood pointed
19 out earlier, an extended down time, if that were to happen
20 -- and I know you don't want to concede in defeat there
21 yet, but if that were to happen, that affects a lot of your
22 plan, and I am wondering whether already those guys are

1 going back in and trying to factor into those plans and
2 studies the idea that you may lose a half-a-year or a year
3 in Station construction time.

4 ADMINISTRATOR GRIFFIN: Well, to follow that
5 train of thought, were that to occur, it doesn't really
6 affect the exploration planning. I think that is all in
7 fine shape, and the Station planning that we are doing
8 focuses very heavily on conducting any Station assembly
9 flight in such a manner that the Station at the end of that
10 flight is left in a stable, controllable, sustainable
11 situation.

12 When we roll those studies out for the media and
13 general public within a few weeks, I think that you will be
14 pleased to see that that is what we have done.

15 MODERATOR: Next is John.

16 QUESTIONER: John Johnson, Los Angeles Times, Dr.
17 Griffin.

18 Tracy Wilson I think alluded to the fact that
19 there has been some editorial page reaction, and some of
20 that has been fairly straight. Do you believe that --
21 well, let me just ask in general what is your reaction to
22 that. Do you think there has been an overreaction in the

1 press and in the public as to what the problems are?

2 ADMINISTRATOR GRIFFIN: That is a good question.

3 I started out with what I thought was at least a little
4 bit of humor pointing out that all the things which are
5 going well on this mission precisely because I believe that
6 folks really have overreacted just a bit.

7 There is no question that NASA's goal was to
8 eliminate all significant foam shedding, debris shedding of
9 any kind, from the tank.

10 There is no question that we always said that
11 while that was a goal that perfection would be
12 unattainable, and so we had a size limit that we wanted to
13 be below. Really small pieces really don't matter.

14 There is no question that in maybe four places on
15 the tank, pieces of foam bigger than what we wanted to see
16 came off. So we weren't perfect.

17 We also said -- I know that I said. If there is
18 one thing in the world that I understand, it is the
19 engineering, development, and flight test business, and
20 that may be the only thing, but we said this was a test
21 flight. We said because of the physics involved, the
22 nature of the problem, that we could not test this tank on

1 the ground in wind tunnel, in any other kind of facility.
2 We had to put it back into flight to see how well we have
3 done. So we did that.

4 On several occasions, I pointed out that Eileen
5 is a test pilot. Her crew are now in the test pilot
6 business, even if they didn't start out that way. It was a
7 brave crew. They have done superlatively, but this was a
8 test flight. It now has provided data that we can use
9 going forward.

10 The bad news is that there were three or four
11 things we didn't get. The good news is we hugely reduced
12 by a factor of 6 or more -- we hugely reduced any damage to
13 the Orbiter through the engineering measures that we took
14 to improve the tank, and to finish up on this question, we
15 specifically said the Return to Flight test sequence was
16 two test flights.

17 I love it when stuff goes well, and I know you
18 guys do, too. We plan for the worst, and we hope for the
19 best, and that is how we conduct business.

20 MODERATOR: Next is Gina.

21 QUESTIONER: ABC News.

22 Dr. Griffin, I guess that we are wondering. So

1 much money was spent on the tank, and you looked at so
2 many. You retrofitted and did so much on the tank. Why is
3 it the PAL ramp never came into consideration?

4 ADMINISTRATOR GRIFFIN: As I said earlier, Gina,
5 it did actually. Again, this was a little bit before my
6 time, but in response to the question earlier, it is indeed
7 my responsibility.

8 I have talked to people who were involved. The
9 PAL ramp foam did in fact receive a huge amount of
10 discussion and consideration. At the end of all of that,
11 one has to make a decision, do you do something different
12 or do you leave it the way it was. The decision was made
13 to leave it the way it was.

14 In light of the flight tests that we just did,
15 clearly we wish we had made a different decision. I mean,
16 no one is saying anything other than that, but to say that
17 it did not receive extensive consideration and discussion
18 just would not be correct.

19 QUESTIONER: The question is -- and I know it was
20 before your time, but why didn't it receive the attention?

21 ADMINISTRATOR GRIFFIN: It did receive attention.
22 It did receive attention. It received an extensive amount

1 of engineering analysis and discussion, and the decision
2 that was made as a result of that was to leave it as it
3 was.

4 Now, what were the technical reasons for those
5 conclusions? We would have to drag out the engineers and
6 let them talk to you, but I need to make a distinction
7 between considering an action and deciding to take an
8 action. The decision was made to leave it as it was, and
9 obviously that will not be the decision we make in the
10 future.

11 Am I being clear?

12 MODERATOR: Yes, you are.

13 ADMINISTRATOR GRIFFIN: Okay.

14 MODERATOR: Frank, you are next.

15 ADMINISTRATOR GRIFFIN: I suspect some
16 disagreement on that point, Dean.

17 MODERATOR: No.

18 [Laughter.]

19 ADMINISTRATOR GRIFFIN: Let me rephrase. When
20 engineers say that they have considered something or
21 analyzed something or whatever and are considering making a
22 change or taking an action, that doesn't imply that the

1 result of that discussion, decision, consideration or
2 whatever will automatically be a change.

3 In fact, engineers have kind of a saying that
4 many people I am sure have heard or used, "If it ain't
5 broke, don't fix it." We debated and discussed whether the
6 PAL ramp was broke. The conclusion we came to was the
7 wrong one, but the conclusion we came to after considerable
8 study was that it was better to fly as is.

9 MODERATOR: Hindsight is 20/20.

10 ADMINISTRATOR GRIFFIN: Hindsight is 20/20,
11 sometimes better.

12 MODERATOR: All right. Frank is next.

13 QUESTIONER: Hi, Mike. Frank Moring.

14 Did your test flight program include reserves to
15 pay for this type of result, or is it a pay-as-you-go sort
16 of deal? Do you have any idea at this point as to how
17 expensive it might be to fix this problem?

18 ADMINISTRATOR GRIFFIN: NASA did not receive --
19 following Challenger, NASA received a supplemental to cope
20 with the improvements and corrections and the purchase of
21 another Orbiter after Challenger. We did not receive that
22 for Columbia. So, very obviously, then, all of the extra

1 work that has been done to enable Shuttle Return to Flight
2 has come from other areas in NASA.

3 I don't have a figure for that right off the top
4 of my head.

5 Now, what was the second part of your question?

6 QUESTIONER: So this is pay as you go? Anything
7 that you have to spend to fix this problem is going to come
8 out of other programs?

9 ADMINISTRATOR GRIFFIN: It comes out of hide. I
10 mean, whether it is the Shuttle program that would be the
11 nominal first part or somewhere else, it clearly does have
12 to come out of the NASA budget. So, if that is what you
13 mean by pay as you go, then yes.

14 QUESTIONER: There are no reserves?

15 ADMINISTRATOR GRIFFIN: No, there's -- of course
16 not.

17 QUESTIONER: I want to be clear, too, Mike. They
18 heard over here that it was after Challenger. You meant
19 after Columbia. Correct?

20 ADMINISTRATOR GRIFFIN: No. I said after
21 Challenger, NASA received a supplemental appropriation, so
22 that the necessary improvements and purchase of a new

1 Orbiter could be made without impacting the then, at that
2 time, existing program, and that was not the case --

3 [Audio break.]

4 QUESTIONER: You know that you have possibly
5 three regions and others and that you are going to have to
6 go back and look at them. Does that kind of open the gate
7 for all of the regions you thought were safe on the tank
8 that you are going to have to go and basically reevaluate
9 what you thought was safe?

10 ADMINISTRATOR GRIFFIN: I would not at this point
11 go that far. If we can figure out why the few areas where
12 the improvements didn't work -- didn't work, then in the
13 wake of that knowledge, we might have to reevaluate other
14 areas, but before we have done the analysis and
15 investigation and come up with ideas for improvement, to go
16 beyond that and say what we might have to do later is
17 really a stretch.

18 MODERATOR: All right. We have about 10 minutes.
19 Jim is next.

20 QUESTIONER: Hi, Mike. Thanks for all the
21 answers to my original questions.

22 ADMINISTRATOR GRIFFIN: I'm trying.

1 MODERATOR: That is Jim Oberg.

2 QUESTIONER: Yes. Jim Oberg with NBC.

3 ADMINISTRATOR GRIFFIN: Hi, Jim.

4 QUESTIONER: The question is, the waiver you are
5 working on for the INA in terms of providing cash for Soyuz
6 seats, do you have any estimates for what the actual prices
7 will be, and do you have any other services that you are
8 considering purchasing from the Russians if in fact you get
9 that waiver?

10 ADMINISTRATOR GRIFFIN: No idea on prices, and
11 not considering any other services at this time.

12 MODERATOR: All right. Thanks, Mike.

13 Patrick is next.

14 QUESTIONER: Patrick Peterson with Florida Today.

15 At this point, do you think that the tank will be
16 able to be fixed by retrofitting the present tanks, or do
17 you think they will have to be redesigned and the tanks
18 that now exist might have to be scrapped and you might have
19 to come up with something entirely new?

20 ADMINISTRATOR GRIFFIN: No idea.

21 MODERATOR: All right. Kelly?

22 QUESTIONER: Kelly Young with New Scientist.

1 I know you said the vehicle is pretty clean, but
2 given the persistent issues you had with the foam shedding,
3 does it give you any pause at the present for a future
4 Shuttle-derived launcher?

5 ADMINISTRATOR GRIFFIN: Well, when I speak of a
6 Shuttle-derived launcher, I almost ought to just find
7 another term. What I am talking about is using tanks and
8 solid rocket motors and engines, not the Orbiter, and as
9 long as we put the crew and the valuable cargo up above
10 wherever the tanks are, we don't care what they shed. They
11 can have dandruff all day long.

12 [Laughter.]

13 MODERATOR: Nicely said.

14 All right. That concludes the folks here at
15 Johnson.

16 Let's go on the line. I think we have Brian
17 Berger. Are you there?

18 QUESTIONER: I am here, Dean.

19 Mike, I wanted to ask you really about the
20 international partners. Have you talked to them this week,
21 and really at what point does a delay start to impinge on
22 NASA's ability to get the International Partner Modules up

1 with the Space Shuttle by 2010 or at the end of 2010?

2 ADMINISTRATOR GRIFFIN: I have actually had kind
3 of a busy week, Brian. No, I haven't called my
4 international partner counterparts. I think they have
5 heard the news.

6 Now, with regard to at what point are our
7 schedule for completion, it begins to be impacted, I just
8 don't know yet. I don't know how many different ways I can
9 say that because we just haven't looked at what the
10 manifesting is in part because we don't know what the
11 recovery time here is going to be.

12 We very much want to get the International
13 Partner Modules, to get all the Station up. We very much
14 want to do that. We simply have to complete these test
15 flights. We have got to analyze what went wrong, develop a
16 fix for it, get back into flight, before we can really
17 predict what our manifest going forward is going to look
18 like.

19 MODERATOR: All right. Warren Leary, are you on
20 the line?

21 QUESTIONER: Yes. Still here.

22 A couple of quick things, most of which you have

1 already covered. You mentioned that Gerstenmaier will be
2 working on things to reposition the Station better during
3 this mission in case there is a longer gap. Can you give
4 us an idea of what are some of the things they are
5 considering that Discovery can do now to help the Station
6 along in the near term?

7 Secondly, after the elation of the launch and
8 everything was going very well, we have this foam
9 difficulty, and I was just wondering how you personally as
10 an engineer and as the Administrator -- what was your
11 personal reaction when you got the word before we did that
12 a big piece had come off? Was it "oh, shucks" or I didn't
13 believe it, or just what personally did you say?

14 ADMINISTRATOR GRIFFIN: Well, with regard to
15 questions about what we can do with the Discovery flight to
16 put Station in the best possible position for the next few
17 months. I am going to let you track down Mr. Readdy and
18 Mr. Gerstenmaier and ask them because I think those answers
19 come better from their level, to be honest with you.

20 I hate trying to sound like I know stuff that I
21 don't know.

22 QUESTIONER: We have tried. We can't seem to get

1 to those guys.

2 ADMINISTRATOR GRIFFIN: Well, I will let you keep
3 trying.

4 MODERATOR: Yes. Just so everybody knows, we are
5 working on getting Bill for maybe one of the afternoon
6 briefings. So we are still working on that. As you can
7 imagine, he is busy right now as well.

8 ADMINISTRATOR GRIFFIN: Okay. So there is that.

9 Now, with regard to how I felt about it when I
10 saw the foam come off, you are going to be disappointed,
11 but my reaction was "Well, that is unfortunate," you know,
12 "I guess we should have looked at that piece harder, and
13 I'm glad it missed." I remember thinking, "Boy, I'm glad
14 that missed," although it wasn't moving very fast,
15 truthfully. So, to be honest, it didn't really matter, but
16 my initial reaction was "I'm glad it missed," and we got to
17 get some people figuring out what happened on that.

18 I am afraid most of the time when I get asked
19 these questions about what I thought or felt or whatever, I
20 end up retreating back to I guess pretty much what an
21 engineer would think. I'm sorry. To me, it is a problem
22 to be solved, and we will solve it.

1 MODERATOR: All right. Eric Ross, are you on the
2 line?

3 QUESTIONER: Yes. Before this flight and before
4 any flight, you have to sign off on all of the measures of
5 acceptable risk, and you said before this flight that the
6 foam problem had come within the realm of acceptable risk.

7 Can you explain that phrase a little bit and how this
8 event may change the understanding of "acceptable risk" in
9 this particular area?

10 ADMINISTRATOR GRIFFIN: Sure, I can. This piece
11 of foam obviously was a mistake and was not anything like
12 what we meant when we said we believed we had reduced foam
13 shedding to an acceptable risk. This is something we did
14 not expect, and it is a problem. We will find it. We will
15 fix it, and we will fly again.

16 Now, when we talked, when engineers talk about
17 acceptable risk, here is what we mean. Based on everything
18 we knew about the fixes which had been made to the tank --
19 and this, by the way, was based no tests done no airplanes
20 and many other things -- we believed that we had calculated
21 the largest pieces of foam which could come off the tank.
22 We believed we had tracked carefully the paths through the

1 air that they could follow to impinge upon the Orbiter if
2 they did come off the tank.

3 We believed that we understood the odds of having
4 a significant size piece of foam hit a vulnerable piece of
5 the Orbiter and that we believed that the odds of that
6 occurring were very low. We believed that they were so low
7 that they were consistent with other risks that we take
8 when we fly the Orbiter, could an engine blow up and any
9 other number of bad things that could happen.

10 If the foam or debris shedding risk is reduced to
11 a level consistent with all the other risks that we assume
12 -- I mean, one of our major risks frankly is on-orbit risk
13 due to impacts by meteoroids and orbital debris. So, if we
14 have reduced the foam shedding risk to a level consistent
15 with all of the other risks we take in space flight, then
16 we classify that as an acceptable risk. It is in our
17 background noise, if you will.

18 Now, with regard to everything on the tank except
19 for these two or three areas that we did not solve
20 correctly, all the statements I just made were true. All
21 the rest of the tank did in fact meet our requirements, now
22 that we have seen it post flight, to be classified as an

1 acceptable risk, and we missed it in three or four spots
2 and we are going to go fix those.

3 Does that answer make sense to you?

4 QUESTIONER: Yes. Thank you.

5 MODERATOR: All right. We have --

6 ADMINISTRATOR GRIFFIN: One more, Dean, and then
7 I have to go to the Hill.

8 MODERATOR: I know. This is the last question.
9 Mike Habbage.

10 QUESTIONER: Mike Habbage with the Orlando
11 Sentinel again.

12 You talked a bit in some of your earlier answers
13 about Shuttle-derived launch vehicles, and I know you have
14 spoken about this on the Hill before, but could you briefly
15 review again what you think the strengths of some of those
16 vehicles would be?

17 ADMINISTRATOR GRIFFIN: Well, the point we have
18 made in looking at our go-forward architecture, meaning
19 what we do for exploration and what we do for crew launch
20 to support Space Station that frankly NASA needs a launch
21 vehicle in the 25-metric-ton or so class and another one in
22 the 100-metric-ton class for earth orbital operations and

1 lunar operations respectively, and we have ways to
2 construct such vehicles using Shuttle solid rocket motors
3 and external tanks and Shuttle main engines. I can't try
4 to describe a picture over the telephone, but we think the
5 existing components offer us huge cost advantages as
6 opposed to starting from a clean sheet of paper, and that
7 is what I propose doing.

8 MODERATOR: Mike, appreciate it. That will be
9 the final word. Thanks for your time, Mike.

10 ADMINISTRATOR GRIFFIN: Let me make one final
11 point that all of this, this effort to return to flight, to
12 fly the Shuttle until 2010, retire it in an orderly way
13 consistent with Presidential direction, to finish, to stick
14 to it, complete the assembly of the International Space
15 Station, and then get on with lunar and Mars exploration,
16 what this is all about is about ensuring American
17 preeminence in space now and for the future. It is not
18 America's place to take a back seat to other nations in the
19 exploration of space.

20 At times, it is not easy, and this is one of
21 those times, and we just have to stick to it, put one foot
22 in front of the other, and we will get to where we are

1 going.

2 MODERATOR: Thank you, Mike.

3 That will conclude today's press briefing. The
4 Mission Update briefing starts in 5 minutes.

5 Thanks, Mike.

6 ADMINISTRATOR GRIFFIN: Thank you.

7 [End of press briefing.]

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