

NASA OFFICE OF PUBLIC AFFAIRS
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Fiscal Year 2010 Budget Rollout
"Science Mission Directorate Budget Briefing"

Speakers:

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DR. JON MORSE,
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Moderated by **DWAYNE BROWN,**
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P R O C E E D I N G S

MODERATOR: Good afternoon, and welcome to the Science budget telecon. Again, my name is Dwayne Brown with NASA Public Affairs.

We have a hard cut-off to allow for the next NASA telecon. So we will get into the Q&A session very shortly.

Dr. Ed Weiler, Associate Administrator for the Science Mission Directorate, will have a brief opening statement, and then we will open it up for questions.

With Dr. Weiler are his budget and division chiefs, and if they need to address a specific question, they will first identify their name and title and address the respective question, and the Q&A portion will be delegated by the operator.

So, with that, Ed?

DR. WEILER: Good afternoon, everybody. We are here today to talk about the President's fiscal '10 and out-year budget, and I would like to start by saying that we are very pleased with this budget because it represents about a \$1.2-billion increase over the years fiscal '09 through fiscal '13. So, over those five years, we are seeing an extra \$1.2 billion over the budget we had last

year.

This increase is entirely in the Earth Science arena. We have four divisions here in the Science Mission Directorate, Earth Science, Astrophysics, Heliophysics, and Planetary. The \$1.2 billion is spread over those five fiscal years in the Earth Science arena.

With that extra money, many things will be accomplished. First and foremost is the so-called foundational Earth Science missions. These are missions that the National Academy Decadal assumed would be there and flying, before we start flying the so-called Decadal priorities.

So our first priority with this money will be to get these in good budget shape on realistic budget footing and schedules. That is what we call a 70-percent confident level. All these missions will be brought to the 70-percent confidence level in budget and schedule, and they include things like the Glory Mission, an aerosol mission, the Global Precipitation Mission, the LDCM Mission, Landsat follow-on mission, and the NPOESS Preparatory Project Mission.

In addition to this, we are maintaining the

ability to, at some point, put the thermal infrared scanner instrument on the Landsat Mission. We will also be issuing an announcement of opportunity for a new program called Venture Class, which is also a very high Decadal priority, and this is a new program that will do complementary science, fill in gaps where the Decadal missions don't necessarily do all they should do, and it includes things like small airborne instruments, large airborne instruments, and even small satellite mission. That will be the first for that program, and it will come out this summer.

In addition, last but not least, we will be accelerating two of our highest priority Decadal missions called SMAP, which is the Soil Moisture Mission, and ISAT will be accelerating them about one year for a planned launch date hopefully in late 2013 or early 2014 for the SMAP mission, and late 2014 or early 2015 for the ISAT-2 mission.

Actually, we are also providing some start-up funds for studies on the other Tier 1 missions, Destiny and CLARREO.

Across the board, we have established 70-percent

confidence-level budgets in all our programs. Our goal is to have executable programs within cost and schedule. In addition to that, we are supporting an announcement of opportunity for instruments for a New Frontiers mission. That AO is on the street now for Planetary Science. We have the funds to support an AO, an announcement of opportunity, for the Discovery Planetary missions. That will be later this year, probably toward the end of this year.

In addition to all that, we will be selecting two small explorers in the areas of Astronomy or Heliophysics, Heliospheric Physics. We plan to make those selections and announce them to you probably sometime in early to mid summer.

And last but not least, the budget certainly supports what is on my mind right now, and that is in four days, we are launching the last servicing mission to Hubble, a plan for launch around 2 o'clock in the afternoon on Monday.

With that, I will stop, and Dwayne, you can take over.

MODERATOR: Okay. Operator, let's go ahead and

open it up for questions. We have a number of media on the line. So, Operator, I would like to have whoever is in the queue ask one question, and then we will go through the entire queue. If we have enough time, we will go for a second round.

You may go ahead and facilitate the Q&A, please.

TELECONFERENCE OPERATOR: Thank you, sir.

Once again, at this time, if you would like to ask a question, please press Star, then 1. You will be promoted to record your name. You may also withdraw your request by pressing Star, then 2.

Our first response comes from Seth Borenstein of the AP. Your line is open.

MEDIA QUESTIONER: Seth Borenstein at AP. Ed, thanks for doing this.

I think I have asked this before, but you are getting yet more money. You have a satellite, GORSAB [ph], DSCOVER, Triana, whatever you want to call it, and its many different -- well, it is actually built and just sitting around. Has there been any plans on actually using what the taxpayers have paid for, or is there reasons not to launch it? Explain the thinking here.

DR. WEILER: The so-called "DSCOVR" spacecraft is sitting in storage at Goddard, as it has been for about four or five years now -- actually seven years. I have been corrected. It was not given high priority in the Decadal, National Academy Decadal Survey. We within SMD use those Decadal Surveys basically as our bibles in terms of where we get our priorities of science missions.

However, the Air Force and NOAA have expressed some interest in this program because they have responsibility for space weather, for instance. That is worrying about the radiation environment in space and solar storms, et cetera. They gave us a small amount of money to do a study to look at the satellite, basically to take it out of its crate literally, and test it to see if it were still a viable spacecraft, and that has been done, and, yes, indeed, it is a viable spacecraft. We have provided them what it would cost to refurbish the spacecraft and get it up to speed for launch because, obviously, it would still have to go through another thermal vacuum test, just to be sure that the parts haven't aged, et cetera. We stand ready if NOAA or the Air Force would like to cover the refurbishment cost and the launch cost to help them

launch this satellite, but in terms of science priority, it does not have any Decadal priority.

Freilich, he is our division director, Dr. Mike Freilich. Have I missed anything you would like to add?

DR. FREILICH: The one thing that I would add is in the FY -- this is Mike Freilich, Division Director of Earth Science.

In the FY09-enacted budget, we were allocated approximately \$9 million to, in fact, refurbish the two Earth Observation Instruments on DSCOVR, the EPIC camera and the NISTAR radiometer, and we are doing that.

TELECONFERENCE OPERATOR: Our next question is from Todd Halvorson of Florida Today. Your line is open.

MEDIA QUESTIONER: Hey, Todd Halvorson of Florida Today for Ed or one of his guys there.

I was just wondering, and this is probably a line item in the budget that I haven't seen yet, but how much money you have to operate Hubble over the next five years.

DR. WEILER: I believe it goes down to about a hundred -- how much, Jon? What's, for instance, the FY10 budget?

DR. MORSE: This is Jon Morse, Astrophysics

Division Director.

It is about \$110 million for operations. That includes all the folks doing the ground system and the data analysis budget, and in the out years, the projected budget goes down to about the mid nineties or low nineties in its operations in the out years of the budget projection, but the FY10 budget is about \$112 million.

DR. WEILER: But the bottom line is over the next five years through the operation, it is stable, fully fund science and operations, Todd, and beyond that, it would be subject to what we call "senior reviews." After five years, it would have to compete with other missions to continue that level of funding.

MODERATOR: Operator, can you repeat the queue instructions, before we take the next question, please?

TELECONFERENCE OPERATOR: Certainly, sir.

Once again, if you would like to ask a question, please press Star, then 1. You will be prompted to record your name. You may also withdraw your question by pressing Star, then 2.

Our next question is from Eric Hand of Nature Magazine. Your line is open.

MEDIA QUESTIONER: Hi, Ed. This is Eric from Nature.

There was some vague mention in some of the top-level information passed out at the overarching budget rollout of OCO and what is going to happen to it. I was looking for some indication within the request that there would be money allocated for this. Can you explain why you had to be so vague about whether or not there would be a re-fly of OCO or not?

DR. WEILER: Okay. Eric, I will start out with the 100,000-foot answer, and then I will let Dr. Freilich take it a little lower.

After the tragic loss of OCO, because the shroud didn't come off of the rocket, you could have a knee-jerk reaction and start building a new one right away. We didn't do that.

Mike Freilich said let's reevaluate the situation, because OCO was selected and started eight years ago. It was, you know, a different world, a different technology. In the meantime, other satellites have gone up.

He wanted to do due diligence and go back to the

scientific community and have the question answered, does something like OCO's capability still make sense today, and what should we do. Basically, he has got that answer now, and, Mike, I would let you pick up from that.

DR. FREILICH: Okay. Thanks, Ed. Mike Freilich, Director of the Earth Science Division.

As Ed said, we got reaffirmation that, indeed, the measurements that OCO was designed to make are timely, given the other assets that are on orbit now and the national policy and scientific needs, and as you know, Eric, we have also been studying other possibilities for flight of OCO-like measurements, including a near identical, so-called "carbon copy" free-flyer mission, and a potential mission which combines the thermal infrared capability for the Landsat measurements and the OCO capability for carbon sinks and sources to fly in Constellation with the Landsat Data Continuity Mission.

The way the schedules are lining up, we are doing our due diligence and presenting to the agency and the administration our plans, and they were not yet ready, obviously, given the schedule for production of this budget.

TELECONFERENCE OPERATOR: Our next question comes from Rachel Courtland of New Scientist. Your line is open.

MEDIA QUESTIONER: Hi. I was wondering what the plans are for Cassini, whether you have a sense of whether you are going to be funding this mission or not.

DR. WEILER: Okay. I will pass that on to Jim Green, Dr. Jim Green, who is the Planetary Division Director, who is in charge of the Cassini Program. Jim?

DR. GREEN: Yes. This is Jim Green, the Director of the Planetary Science Division.

As you perhaps know, indeed, we have held a senior review for the Cassini extended mission, the second extension. Cassini currently is in its first extension. That will end in July of next year. That report has just been received here at NASA Headquarters, and so we will be evaluating that and then examining where it is appropriate to make the decision and announce what we will be doing in the extended, extended mission portion of it.

I will mention that that report is public. Let me put a couple parts to that together. It is designed to extend observations within the Saturn system, primarily of Titan, over the next seven years. This will allow

scientists to really look at how the seasons will be changing on Titan. We are observing exciting methane rain in the lakes that had been observed in the northern hemisphere begin to appear in the southern hemisphere. So, from a scientific point of view, the report is quite glowing. It is a very exciting mission, and we will, from a Headquarters perspective, be analyzing the results of that and then announcing our decision later this year.

TELECONFERENCE OPERATOR: Our next question comes from Irene Klotz of Reuters. Your line is open.

MEDIA QUESTIONER: Thanks very much.

I don't know if this question is for you, Ed, or perhaps for Jim Green.

When you all had the announcement about the delays in the next Mars mission, you weren't certain at that time what were going to be the impacts to other programs because of the cost overruns, and I am wondering if you have a better sense of that now.

DR. WEILER: We kept the bulk of the impacts within the Mars program. We didn't go outside the Mars program at any great extent. What it means is that we no longer can do the full-up kind of mission we wanted to do

in 2016, and at that point, I also discovered that the European Space Agency, my counterpart over there, David Southwood, had his own 2016 mission that was starting to get more expensive than he could afford because it was getting more and more technical requirements, more and more instruments put on it.

So we are facing, in Europe and America, desirements of our science communities that could not be met with our individual budgets, but, lo and behold, we said, you know, maybe it is time that Europe and America should stop competing with each other on Mars and maybe do something really unique and work together for a common goal, and we are in the process right now of looking at architectures for not just the '16 mission but the '18 and '20 missions that would be a joint U.S.-European Mars program.

I personally feel this is the best way to get the kind of science done both our communities want to do, and I just feel that is the right way to go.

So, to answer your question the short way is that the primary impacts have been to the Mars program, but I think we even have a way around that if we can lose a

little bit of our ego and, you know, nationalism and maybe share a little bit more with other countries and try to do things together.

TELECONFERENCE OPERATOR: Our next question is from Todd Halvorson of Florida Today. Your line is open.

MEDIA QUESTIONER: Todd Halvorson of Florida Today with a couple, if I could, Ed.

Do you have a number of belly buttons you can give me for the number of people who are working on the Hubble project office these days, and can you also tell me what the budget has in it for the Spirit and Opportunity Rovers on Mars?

DR. WEILER: Okay. First of all, I am shooting from the hip in terms of numbers, but my guess in terms of how many people work Hubble servicing, it is probably -- Jon, a couple hundred?

DR. MORSE: Well, it's a couple hundred million, full development in FY09.

DR. WEILER: No. Belly buttons.

DR. MORSE: So whatever that translates.

DR. WEILER: A couple hundred. Okay. Jon is saying about a couple hundred. In one year?

DR. MORSE: That is '09.

DR. WEILER: '09. Okay. So a couple hundred million divided by 300,000 is 700 people maybe. So it may be 700 people, Todd, but that is spread all over the country, not just in the project office and --

MEDIA QUESTIONER: Spirit and Opportunity budgets.

DR. WEILER: Spirit and Opportunity is \$20 million. It is for both. So we are spending about \$20 million a year to operate both Spirit and Opportunity.

TELECONFERENCE OPERATOR: Once again, if you would like to ask a question, please press Star, then 1. One moment, please.

[Pause.]

TELECONFERENCE OPERATOR: At this time, I have no further questions.

MODERATOR: Okay. I would like to remind the media that replays of this telecon will run until May 22nd.

The number is 800-925-0568.

I would like to thank everyone for their time. If you need additional information, please call my office at 202-358-1726.

Operator, you may end the call.

TELECONFERENCE OPERATOR: Thank you. This does
conclude today's call. At this time, all parties may
disconnect.

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