WALSH: Good morning and welcome.

This subcommittee will come to order. We'd first like to welcome Administrator Sean O'Keefe, administrator of the National Aeronautics and Space Administration, for our hearing today on fiscal year 2005 budget request.
This is our last currently scheduled hearing on fiscal year 2005, although other hearings may be held subject to the call of the chair.

The fiscal year 2005 budget request for NASA is $16.2 billion, an increase of about $900 million over the fiscal year 2004 appropriation. Most of this increase is associated with the International Space Station and shuttle operations.

The most important problem we need to tackle with respect to NASA is the vision for space exploration. While the vision is becoming better defined with each passing day, there are many facets that are still very unclear. We need to have a clear understanding of what we are being asked to endorse before we can move a bill forward.

So we look forward to working with you, Mr. Administrator, and your staff to give the effort as much clarity as possible.

I want to assure you that this committee and the Congress will give your vision proposal a fair hearing, but I cannot commit this Congress and future congresses to a program that is undefined, nor can I authorize you to spend money in fiscal year 2004 on this effort or related efforts.

Before I recognize the administrator for his statement, I'd like to turn to my colleague and friend, Mr. Mollohan, for any comments that he would like to make.

MOLLOHAN: Thank you, Mr. Chairman, and welcome Mr. O'Keefe.

Today you're testifying in support of NASA's fiscal year 2005 budget request, which anticipates the approval of a series of fiscal year '04 operating plans, only one of which has been submitted thus far, I believe, involving many program changes, terminations, delays, in addition to new starts.

Conceptually, I support the president's vision for the space exploration. But I'm pleased to see the administration propose human space flight that will take us beyond lower-Earth orbit. It's time NASA and the nation committed to human space exploration to complement NASA's current programs.

At the same time, I share the serious concerns that many have this Moon, Mars proposal represents a major overhaul of NASA programs involving cuts, deferrals and terminations to existing programs, as well as major new starts, amounting to multi-billion dollar realignments, concerning which there is woefully inadequate budget detail or projections and for which authorizations do not exist and have not been sought.
The vision proposal is complicated, not only because it is far-reaching in scope, but also because it confronts the VA-HUD committees in the House and the Senate with an awkward process. We're being asked to approve a wholesale re-ordering of NASA programs by approving a series of 2004 operating plans that are meant (ph) to ratify these changes in your 2005 budget all without the benefit of appropriate debate, deliberations and without sufficient budgetary detail or program cost projections.

You are in effect asking the Appropriations Committee alone to approve and implement in less than a year a proposal that will yield fundamental changes in the agency in the next 15 years. This significant change comes at a time when the agency is dealing with a major accident review and striving toward return to flight and the return to normal operations.

I'm concerned that there is too much too fast without enough funding and without consideration and debate in Congress.

The president in his January 14th announcement of this proposal stated, and I quote, The vision I outline today is a journey, not a race, end of quote.

It seems that the speed with which NASA seeks to implement this proposal certainly makes us feel like we're in a race. Our destination is the moon and beyond, but we don’t yet know how we're going to get there.

For example, let's look at the initial fiscal year '04 operating plan, in which significant changes open the door to more radical changes and follow-on to fiscal year '04 operating plans.

In the space science enterprise, they include cuts to Project Prometheus, cuts to Space Science Technologies and Advanced Concepts, Constellation X and re-submissions, cuts to the Living With a Star, totally about $150 million.

There are even more specific cuts, delays and cancellations in the fiscal year '05 budget proposal. For example, in the Space Science Enterprise, Hubble's fourth servicing mission is canceled. The Jupiter Icy Moon's orbiter mission is delayed by three years. Explorer Constellation X and re-submissions are delayed. In the Earth science enterprise, global precipitation missions and the Earth systems path-finders are deferred. Research and technology funding is frozen.

In the biological and physical science enterprise, research in International Space Station is cut by $1.2 billion from fiscal year '05 to fiscal year '09. In cross-cutting technologies, next-generation launch technologies are terminated.
Then there have been new starts, CEV, technology maturation program -- the entire lunar exploration team, which according to NASA documents begins in 2004.

The process by which NASA is asking Congress to examine this vision, in my judgment, does not do justice to the seriousness and the enormity of the president's proposal. Given the volume of questions that are raised by the proposal, it could only be well-served and even improved by being subjected to a rigorous authorization process. The administration is bringing forward a serious proposal. Congress should treat it accordingly.

I look forward to your testimony.

Thank you, Mr. Chairman.

WALSH: Thank you.

Mr. O'Keefe, please proceed with your testimony. And your entire statement will be entered into the record.

O'KEEFE: Well, thank you, Mr. Chairman and members of the committee. I appreciate the opportunity to appear to discuss the president's request of $16.2 billion for the fiscal year 2005 budget request.

Shortly after the accident investigation board began its review in February of 2003, there emerged a series of comments and views expressed in their hearings and their investigation which concluded that the elements of what caused the accident were in part the technical factors that led to it, indeed insulation that struck the leading edge of the orbiter and brought it down, but also because of human failings that we had, as well as organizational challenges we had confronted and an absence of an overarching strategy of space policy.

They concluded that in their report of August 2003, that indeed that was one of the central factors that contributed in long term to the accident, as well as the insulation that departed from the external tank.

The Congress in the course of proceedings on hearings before this committee as well as others of oversight called for and enunciated similarly a requirement for a vision, an overarching strategy, a statement by the president of the United States to enunciate what the space policy position should be.

And indeed over the course of the summer and through fall we deliberated in an interagency process that represented every stakeholder within the federal government that had a interest in the space policy concerns and collaborated on a conclusion. A set of recommendations were made to the president, in which he was intimately involved throughout the course of the fall. And he made a judgment about what that space policy
vision should be in response to the Congress' call for said, as well as the Columbia accident investigation board and a legion of others.

On the 14th of January, he delivered on exactly that vision. That's precisely what the Congress asked for; it's precisely what the Columbia accident investigation board felt needed to be done.

And as a consequence, he stepped up to that challenge and provided a very clear direction to us and a strategy on how we may need to go forward.

It is a bold, forward-thinking yet very practical and responsible approach, and I hope to demonstrate that here a bit today. And in the course, it builds on some of the immediate kind of experiences we have had in recent months that are consistent and fully compatible with the approach that the president has articulated as the direction we need to move.

Just to quickly review the bidding on that: In December, we launched or became operational on the last of the great observatories, the Spitzer Space Telescope, which has now been yielding, along with Hubble, Chandra, soon-to-be Keppler, as well as the James Webb telescope, an amazing visibility into the universe.

In January we successfully landed two Mars Rovers, Spirit and Opportunity, at a time when the prognosticators suggested as how the likelihood of just one would be a good day. We managed to get two. And they have completed their scientific effort over the course of their 90-day mission, are now in full rover mode and fully operational. As a matter of fact, we can't even estimate now how many more months they will continue to go, but at least it will be through summer.

And that's wildly beyond any expectation we could have ever imagined. And the success of that particular effort to inform the broader scientific questions we had in mind has proven to be quite remarkable.

In March, we successfully the X-43 aircraft, using a scramjet engine to fly seven times the speed of sound, breaking that speed record. In April, further progress continues. Early this morning, the Expedition 9 crew rendezvoused with the International Space Station and will complete a handover in the next seven days, en route to Moscow next week to visit with Sasha Kaleri and Mike Foale, the Expedition 8 crew, who will be returning.

But even despite the challenges we have encountered since the Columbia accident, continue to operate the International Space Station successfully.
In the course of the last several months, we have indeed, as you suggested, Mr. Chairman, submitted an authorization bill to the Congress which implements the policy and advocates the budget request, in addition to the president's position on the overall strategy that's articulated and embodied within the fiscal year 2005 budget request and stream out through fiscal year 2009.

(BEGIN VIDEO CLIP)

GEORGE W. BUSH, PRESIDENT OF THE UNITED STATES: It is time for America to take the next step. Today, I announce a new plan to explore space and extend a human presence across our solar system. We will begin the effort quickly, using existing programs and personnel. We'll make steady progress, one mission, one voyage, one landing at a time.

Our first goal is to complete the International Space Station by 2010. We will finish what we have started. We will meet our obligations to our 15 international partners on this project. We will focus our future research aboard the station on the long-term effect of space travel on human biology.

Research onboard the station and here on Earth will help us better understand and overcome the obstacles that limit exploration. Through these efforts, we will develop the skills and techniques necessary to sustain further space exploration.

To meet this goal, we will return the space shuttle to flight as soon as possible, consistent safety concerns and the recommendations of the Columbia accident investigation board.

The shuttle's chief purpose over the next several years will be to help finish assembly of the International Space Station.

A second goal is to develop and test a new spacecraft, the Crew Exploration Vehicle, by 2008, and to conduct the first manned mission no later than 2014.

The Crew Exploration Vehicle will be capable of carrying astronauts and scientists to the space station after the shuttle is retired.

But the main purpose of this spacecraft will be to carry astronauts beyond our orbit to other worlds.

Our third goal is to return to the moon by 2020 as the launching point for missions beyond. Beginning no later than 2008, we will send a series of robotic missions to the lunar surface to research and prepare for future human exploration.
Using the Crew Exploration Vehicle, we will undertake extended human missions to the moon as early as 2015 with the goal of living and working there for increasingly extended periods of time.

Returning to the moon is an important step for our space program. Establishing an extended human presence on the moon could vastly reduce the cost of further space exploration, making possible ever more ambitious missions.

Also, the moon is home to abundant resources. Its soil contains raw materials that might be harvested and processed into rocket fuel or breathable air.

We can use our time on the moon to develop and test new approaches and technologies and systems that will allow us to function in other, more challenging environments.

The moon is a logical step toward further progress and achievement.

With the experience and knowledge gained on the moon, we will then be ready to take the next steps of space exploration, including missions to Mars and to worlds beyond.

(inaudible) vast amounts of data back to Earth. But the human thirst for knowledge ultimately cannot be satisfied by even the most vivid pictures or the most detailed measurements.

We need to see and touch for ourselves. And only human beings are capable of adapting to the inevitable uncertainties posed by space travel.

Our (inaudible) develop new power generation, propulsion, life support and other systems that can support more distant travel. (inaudible)

(END VIDEO CLIP)

O'KEEFE: Mr. Chairman, in very specific terms here what the strategy calls for and vision as articulated by the president and the direction we have, as you suggested in your opening statement, is predominantly about sustaining the space shuttle and International Space Station to complete that first direction.

For example, in the space shuttle, $4.3 billion is budgeted, including a $238 million increase for return to flight activities, very specifically in fiscal year ’05.
Space Station is $1.9 billion of which part of the increase is to replace the reserves that were reduced last year in the Congress' treatment of the appropriations measure for 2004 to match the specific cost estimates that were called for very directly by Congress to assure that it would be fully funded and financed properly and reserved in a way that is appropriate.

Two, $428 million is budgeted for Project Constellation. It's the first funding that will be for fiscal year 2005. Any lead-up to that has been something that will be part of a future operating plan to the extent that the Congress is agreeable to that approach.

Lunar exploration is $70 million in 2005, the beginnings of it in that year. And that's the start of that activity.

Exploration of Mars, the budget provides $691 million for Mars exploration, which is a 16 percent increase over the prior year.

And the list continues of the kinds of activities that are consistent with where we had been before, but reshaped and focussed toward specifically the activities of accomplishing the mission objectives that the president has called for.

Finally, the approach that, again, is manifest in the direction the president has given us is in concert with, again, an observation not just made over the course of the last year by the accident investigation board and by the Congress and the oversight committees, which call for the president to announce a vision and to state a strategy and to proceed ahead.

It also wrestled through a significant challenge that has bedeviled the state's policy circumstances for the past 25 years, according to the Colombian accident investigation board, and that is to borrow a line from Norm Augustine and the commission that he chaired in 1990.

The commission concluded that there is unanimous agreement that there must be a uniting vision around a space policy, and no two people can agree on what it should be.

That's the challenge that we worked through, came to conclusion on. The president selected an approach. That's what's embodied in the budget request before you.

This is not something in which it's an articulated policy and we'll send you a bill later. It is more a case of very clearly identifying the approaches they will be taken, and this is part of the delivery process, Mr. Chairman, as you and Mr. Mollohan, I think, eluded to in your opening comments, we look forward to that opportunity.
Thank you Mr. Chairman.

WALSH: Thank you very much for your statement and for the presentation. It's very impressive. And I agree, I think we all asked for a statement of the vision. We wanted to know from the experts where we go from here, given that tragic accident. That's been laid out.