

ALL-HANDS BRIEFING WITH MIKE COATS

November 30, 2005

E. HAWLEY: Good morning. Welcome to our first all hands meeting with our new Center Director, Mr. Mike Coats. To begin today's all hands meeting it is my pleasure to welcome back one of NASA's greatest supporters and the congressman for our district, Congressman Tom Delay. (Applause)

DELAY: (Applause) Thank you Eileen and thank you all very much. It is always an honor to come to Johnson Space Center, especially on this occasion. The official welcome as Mike Coats as JSC's 9th director. Before I move on to the introduction I want to just take a few moments if I could to update you all on what's happening in Washington with regard to NASA and its legislative priorities. There's a lot going on in Washington right now. Just before Congress went home for the Thanksgiving recess the House appointed conferees to negotiate with the Senate on a final version of the NASA Reauthorization Bill. I was among the conferees chosen by the House and several other Texans including Senator Kaye Bailey Hutchison will be in the room with me as we work out the final detail on that bill.

As has been the case for several years now, there are those in Congress and elsewhere more interested in earth science and other functions than what I believe is our space program's "missions", human spaceflight and exploration. For my part, I wholeheartedly support President Bush's request for greater management flexibility for NASA's leaders in ensuring the President's vision for space exploration is successfully implemented.

But given the demands placed on the space community on the vision, I think it only makes sense to provide NASA the leeway that they need to meet the ever changing challenges that could arise. If our goals include the development of a new crew exploration vehicle, future shuttle missions, future robotic and manned missions to the moon, Mars and beyond; that kind of scientific effort cannot be micromanaged by politicians in Washington. Nor can we hope to move forward with the President's mission, in my opinion, without a robust, fully manned space station. That was my view when earlier this year we fought to amend the law to protect NASA's vital partnerships with Russia and other nations and repealed a provision of the Iran Non-proliferation Act so that we can continue to honor our contracts with foreign companies. And the President has signed that bill.

NASA must have the flexibility and funding that it needs to meet the challenges presented by the next phases of the President's vision. And it is the position that I will be advocating in our negotiations with the senate. So I urge all of you to stay aware of the ongoing work on the authorization bill and make your voices heard in the capitol.

As you may know, starting next year, NASA's budget will come under increased pressure. As you know the White House is working on that '07 budget as we speak, and we need to be, and we are engaged in that effort. NASA's friends in congress are aware of this situation and we have already been in contact with Administrator Griffin and the White House to do what needs to be done to protect NASA and the shuttle program after 2006.

Earlier this month I lead a House delegation in meeting with the President's top budget guy, Josh Bolton. We met to emphasize to him the importance of fully funding the

shuttle in their upcoming budget. You can all rest assured that we are already on the case and everything that can be done to secure an increase in funding for the shuttle, will be.

But as for the Present, it gives me great pleasure to return to the Center today to officially welcome Mike Coats back to NASA as the 9th Director of the Johnson Space Center. As most of you know, Mike has spent most of his life serving his country first as a naval aviator then as an astronaut. He flew 315 combat missions during the Viet Nam war; afterwards he became a Navy test pilot. And then he signed up for some really dangerous work as a member of NASA's first astronaut class specifically trained for service in the space shuttle program in 1978. On three shuttle missions, including *Discovery's* maiden voyage in 1984, he logged more than 460 hours in space. Upon retirement from the Navy and NASA, Mike stayed as a member of the space community first with Loral Space Information Systems here at JSC and then as Vice President of Lockheed Martin's Astronautics in Denver. He's an old friend of the space program, and I must say a brilliant one at that. He is uniquely qualified to lead JSC's efforts toward implementing the President's vision in the coming years. He knows what the CEV needs and how to help the men and women of the JSC family build it. Everyone knew that it was going to take big feet to fill Beak Howell's shoes, but we couldn't be more fortunate to have Mike Coats as his successor. Ladies and gentlemen, family of Johnson Space Center, your new Director, Retired Navy Captain, and NASA astronaut, Michael L. Coats. (Applause)

COATS: Thank you very much congressman and thanks to all of you. It's nice to see so many familiar faces. Some of us have a little more gray hair than the last time I was down here but it's a pleasure to be back. Diane and I are delighted to be home again.

First of all I want to thank Congressman Tom Delay. His support of the space program has been instrumental in getting the resources we need to do our job, and he's done that for many years and it's greatly appreciated. I also want to thank General Howell for his leadership during some very difficult times. Beak, as the congressman said, is a real class act and a real tough act to follow, and I wish him all the best up in Austin.

With all due respect congressman, Washington might be the most important city on the planet Earth, but in the space business Houston's the most important city in the universe.

(Applause) The first we all heard from the surface of the moon was Houston; and the first word we're going to hear some day from the surface of Mars will also be Houston; and next year we win the World Series. (Laughter/Applause) A couple of personal comments: In July of 1977, 28 years ago, I came to the Johnson Space Center for the first time. We were part of the first group to interview for the first astronaut class that went in alphabetical order so I was in the first group of 20 to come down in July of that year. Dr. Kraft was the Center Director and he encouraged all of us in the group, in each of the groups, to go around the Johnson Space Center and talk to the employees. He said, talk to the astronauts, talk to the engineers, talk to the janitors, talk to everybody. See how they like their jobs. So I took that as kind of a challenge. When I wasn't going through the physical evaluations and so forth I talked to as many people as I could. I talked to secretaries and astronauts and the engineers, the taxi drivers, and every single one without exception just loved what they were doing. They loved coming to work here at the Johnson Space Center. I took it as a challenge, "there must be somebody here that isn't happy with their job." But no matter how I phrased the question I got a very positive response. You know the opportunity to fly in space is a tremendous privilege.

But the opportunity to work with people who enjoy coming to work every day is an even greater privilege. So when Mike Griffin called and asked if I'd be interested in being a candidate for this job, I think I set a new record for a quick answer. Johnny Carson once joked that scientist had come up with a new measurement for a small amount of time called a nanosecond. He said the actual shortest amount of time is when the light turns green and the guy behind you honks. (laughter) But I think I may have beaten that because when Mike asked me I said yes so fast I think I caught him off guard.

Probably not wise to disagree with your new boss or say he's wrong but Mike has said publicly that being a NASA administrator's the greatest job in the world, but he's wrong. He gave me the greatest job in the world. And as somebody who's been off this world I think it's the best job off the world too.

Let me talk a second about some of my priorities because I've been asked a lot about that and I talked to my staff already this week. Obviously the first priority is to accomplish our missions, and we have a number of missions. Mike has laid out six objectives or six priorities for NASA, and the Johnson Space Center is right in the middle of all of those. We're either leading them or heavily involved in every single one. I would like some day to be able to look back in my rocking chair, holding my grandchildren, and say I did something to fly the shuttle safely right through the last flight. When that flight rolls to a stop we're going to have one heck of a celebration. I also want to operate the space station safely. I want to complete the space station and get as much science as we possibly can out of the space station and use it to benefit the exploration program. And of course we have to transition to a new space transportation system. This project

Constellation is going to be a number of space vehicles to allow us to go back to the moon and eventually go on to Mars.

And lastly, I want the Johnson Space Center to continue to be recognized as the world's premier space center. The space program attracts the best and the brightest. I don't mean to flatter you but in fact we do get the best and the brightest. And maybe it's because the space program is uniquely exciting and satisfying. We have discrete satisfaction points. When we launch and recover a mission it's a tremendously satisfying thing. And there are a lot of jobs out there that you don't have those discrete satisfaction points. Maybe the yearly budget is one but I don't know.

But along with the enjoyment of the jobs that we do comes a lot of responsibility. All of you have been gifted with first class education and first class minds or you wouldn't be in this business. So I think you have a responsibility, and I'll be talking about this a lot over the years, to use those, to use that education and those first class minds. You have to take care of your family; you have to take care of your people; you have to take care of your community, and you have to take care of your nation's space program. So I'm going to be encouraging people to get involved in the community and get involved with your people and be leaders. Family. It may sound a little funny coming from the director of the Johnson Space Center but family comes first. This business can require some incredibly long hours and a lot of travel, but I've learned over the years that if you don't take care of your family, and that includes yourself as well—and I speak from experience—if you don't take care of yourself and your family, you're not as productive at work. I've never had to tell somebody, "you're not working hard enough", but I've had to tell a lot of people, "go home. Spend some time with your family."

Communications: One of the things I've learned now in 40 years in aerospace is that problems and failures come almost always from a failure to communicate of some type. It's my job to clearly set expectations and then help you do your jobs. Communications are the secret to success and the cause of failures. So I encourage you, we've got wonderful communications systems now. E-mails are great; phone calls work, face-to-face meetings, there's no substitute for face-to-face meetings; but I encourage everybody to make a special effort to inform others about what you're doing and listen to others. That's critical. I'm always looking for ways to improve ways of communication. So please give me your ideas, if you have them, on how we can better communicate.

Teamwork is absolutely mandatory, and it's not just a buzz word. It doesn't matter to me if you're a government employee, or contractor employee, we have to work together to have any chance of a successful space program on a budget that's always going to be constrained. The joint leadership team that General Howell is a terrific idea and I'll be looking for other ideas as well.

People. It's all about the people. We all have modern computers I'm sure you've all got the latest and greatest in your offices and at home. We have terrific software tools nowadays to allow us to do a whole lot more in a shorter period of time. But it's the people that make things happen. We all need to take care of our people, educate our people, train our people properly, give them experience they need to do their jobs, challenge them, incentivize them and then recognize and reward them. And I'll be talking a lot about that in the future. Along the same line, it's about the people when we're talking about the space program. One of the things I've learned is you have to personalize space. We talk about the technologies that spin off from the space program,

and the are wonderful to talk about, but the general public takes the technologies for granted. They don't understand a lot of them and the take them for granted, but they do relate to the people side of the business. So we need to describe the space exploration and the benefits of space exploration in terms of people and how they can relate to it everyday. When I talk to schools and public groups, which I've been doing every month for the last 27 years now, I talk about what it's like to live and work in space. And those are the questions I get because they can relate to that. And we need to emphasize that as much as we can and we'll be looking for ideas to do that better.

Not invented here is not an acceptable state of mind. The world is rich in ideas and innovations and we all need to be constantly looking around for better ways to do our jobs. Benchmarking is a way of life and one measure of our performance here at JSC is how many times others come to us to benchmark the way we do things. I encourage everybody to look around and look for new ideas. We don't have all the answers, and I don't pretend to have all the answers. My wife says I often miss the obvious so maybe I don't have any answers out there, but I'm really good at asking questions. And I can ask some pretty dumb questions sometimes, but I have no fear of asking questions whatsoever. I love to learn and it's been fascinating the last two weeks learning what I've missed in the last 14 years. This is an amazingly interesting business that we're in, and I really enjoyed learning about it again. So I appreciate your patience. My staff is having to be very patient with me. I really believe if you can't come up with good questions, you're not going to come up with good answers. So don't be a, don't hesitate to ask questions and learn everything you can. I'll certainly be asking a lot of questions out here.

There's no substitute for experience in aviation or space. It's one of the things we learned early on. It's important to get experience and benefit from experience in this business. We have the benefit of more than 40 years now of spaceflight experience, and as we design the Constellation system of vehicles we need to transition the experience base, the operational knowledge that we have on the shuttle and the station into the Constellation system. So I'll be looking for ways to transition, not only the people, but the knowledge from one system to another over the next several years.

It may sound kind of corny but I work for you. I certainly work for Mike Griffin, and I work for the American public, and I work for your grandchildren's grandchildren. And it doesn't get any better than that. Speaking of which, we found out our first grandchild is due July. (Applause)

I have the last job I ever want. And I could never begin to pay back this country what I owe it. I'm proud of the history of the American space program. In fact, I was a history major and a math major at the naval academy, so I love history. But space is about the future, not the past. I'll be looking for ideas to make the Johnson Space Center look a little bit less like a museum and more forward looking as we begin the space exploration program. As I told a congressman, we're here to make history of our own. So once again I want to thank Congressman Delay for taking the time to be with us today and I'd like to open it up for questions and answers if we could. Eileen? (Applause)

E. HAWLEY: Thanks very much. Because we want to make sure everybody hears the questions and because we are recording this for employees who could not be in the auditorium today, please wait for the microphone to get to you. If you have a question,

we have Greg on that side and Royce on this side, just raise your hand if you've got a question we'll get a microphone to you as quickly as we can.

Didn't you hear Mike when he said something about questions, good questions if you want answers.

COATS: If you don't have any questions, do you answers (laughter) Plenty of answers.

QUESTION: Welcome to JSC. Over the past 30 years the IT management burden has become onerous with shrinking budgets. We just don't have the people to do it. Is there anything you can do as Center Director, perhaps working through congressional liaison, to reduce that burden. And I apologize to the Congressman for having to be critical of Congress. (laughter)

COATS: They deserve it. Let me. There's no question that we have an awful lot on our plate. We have three major programs to do and a lot of other small programs here and a lot of other constrained budget. And I think the budget is going to continue to be constrained in the future. What we can do is be salesman for the space program. All of us in here, all of us at the Johnson Space Center, all of us at NASA, need to be looking for ways to go educate the public. That helps congress, if the public has an interest in space, that certainly helps congress when their deciding where to go spend the money. One of the things you do in industry is conduct focus groups of the general public, and you make sure you get a good cross-section in these focus groups, and ask them about the space program. I was frankly shocked at the level of unawareness about the space program. Most people have heard of the space shuttle, few of them have heard of the space station, very few have heard about space exploration initiative. We're not doing a very good job of advertising what we do the general public. Which, by the way, is a

requirement of the Space Act. NASA is one agency that is required by law to talk about the activities that we do. And we need to do a better job of telling the public what the space program does for them. We need to be salesman for the space program. That will make it easier for Congressman Delay and the rest of congress to increase our budget, which is what we need to have happen here to reduce the burden. So, we've got a responsibility to be salesmen and we're going to be looking for ways do that.

DELAY: Can I reinforce that just a moment to talk about, to expand a little bit on what I was talking about earlier. What's happening in Washington right now is not getting a whole lot of attention is a huge evaluation of government and redesigning government and deciding what kind of government we need for the future. And I won't get into a lot of details, but what it does is a huge look at prioritization and the limited amount of revenues that we have. And the other side, if you will, that are competing for the science dollar, or for the research and development dollar that comes from the federal government, are very active. And they're very active in Washington. They're not enemies but they're active in advancing they're position, and what they see as the future, and competing for that dollar. That's what's going on. That's why you hear from us all the time about what Mike was talking back is selling the space program, selling the vision, selling the reasoning why it is so important on many different levels. And we are trying our best to convince those that are directly involved whether it be the government employees or contractors, or people that are spread all over the nation that are deeply involved in the mission, to really stand and work to convince the American people that it is incredibly important for the future of this country as a leader in the world, whether it be an economic leader or a space leader or a security leader, whatever are...we are the

leader of the world, and if we start backing down from our leadership particularly in space because that is the future of our country and frankly of the world. The Chinese get it. The Indian's get it. They are on a fast track to be a major player in space. The American people need to get it, and we need to tell them. Nobody else is going to tell them more than you and I can. So that is the effort that is incredibly important as if you don't have enough to do already. It's a huge, huge effort that needs to be done, and needs to be done now.

E. HAWLEY: Question down here in the front.

QUESTION: I notice from our international partners, they are starting to shift some of their launch vehicles that they are preparing to use for both hardware as well as for crew. I'm curious what Congress and what NASA and even Johnson Space Center are going to do to demonstrate and assure our international partners that we're still planning to do everything that we had promised them as well as what we may need them for in the near future?

DELAY: I can speak from Congress's point of view. This reauthorization bill, NASA reauthorization bill is incredibly important because it's really the first time that Congress will have endorsed the President's vision for space exploration. That's a huge message to our international partners. And in that bill is a commitment to our international partners of flying the shuttle of fully manning the space station, it mandates a six man crew. It is a huge, huge signal to the rest of the world that we aren't backing down to our commitments to the American people of being first in space and our commitments to the partnership. The Presidents signing that bill repeals part of the Iran non-proliferation treaty is also a huge signal that we sent to our partners that we are committed to honoring

our agreements and we are committed to continuing the work with the international community. So...but again, I hate to constantly harp on this, the budget effort that's going on right now is hugely important as a signal to the rest of the world as our commitment to the future. This bill is a huge, the reauthorization bill is another huge effort that's ongoing right now and in that effort science and aeronautics and others are trying to roll off certain amounts of money and stop the flexibility, stop us from giving more flexibility to NASA and the administration to do the job. So these are huge battles that the international community is watching right now to see if we going to continue our commitment to the future.

COATS: I think that Mike Griffin has made it plan that we intend meet our international commitments. I can't speak for the...well I guess I can speak for the astronaut office now, (Laughter) but those of us who have flown out in space and looked back at the earth firmly believe that future space programs are going to be international by definition. The precedence that we are setting right now with the international space station are going to be with us for decades and decades to come. We have to have international participation because we just don't have the resources to go it alone and, or the desire to go it alone. We want domestic capability, Mike has made that pretty plain, but we want international cooperation and take advantage of the expertise where it exists. But I think you'll see more and more emphasis that we are going to meet our international commitments in the future and we're going to start working together on project constellation as well.

QUESTION: Congressman Delay, this is also for you. Even though we all are to be salespersons and deliver a message to the public about the space program, I do believe

me I work my rear end off getting the message out there as a Mars Society officer. I know that NASA is constrained in that department because they are only allowed to do so much. I know the PAO office can only deliver so much publicity because they're not allowed to and they're not allowed to because they are constrained by the government. There is supposed to be a rule somewhere and maybe you can tell us more about that. Because they're not supposed to, or not allowed to spend tax payer dollars on advertising. Is that correct?

DELAY: I don't think that is correct. I'm going to look into it because one of the things that I've constantly talked to each administrator that comes in and have a commitment from Mike Griffin and Mike and I have talked about it and it's one of the focus that I want to see happen is a certain amount of the budget be spent on advertising and on creating documentaries and on communicating wherever we can. A real public relations program that can be used to brand our vision and show the American people how exciting this is and how it relates directly to their own lives. So, I'm going to check on it and make sure, but I'm almost positive that you can spend, I'm mean you have a budget and it's not very big, I'll tell you, to send on public relations, but it is a budget and it can be spent.

COATS: There has to be a balance here. Obviously by law we're not allowed to lobby for budget and so forth, but the space act, which is now almost 50 years old, I printed out the other day and read it again, and one of the clauses...it requires us to tell the public about our activities and we do need to do a better job of doing that. So, we'll have to walk the fine line here between lobbying and informing the public out there.

QUESTION: As a part time effort for the last five years I've become a part of the NASA Ambassador Corp. We do the rodeo, we do the Sheila Jackson Lee party, open house, mini tours, and I've noticed over the last five years—and it kind of goes along with what these folks have been saying—a decline in the materials we can give out, the span of time open house has now been drastically cut back. The booths that we put out at the wings over Houston was a lot smaller. We're not tooting our horn the way...and I find when I'm working these things that there's still a lot of, lot of people, don't understand that NASA is just more than scientists and astronauts. They ask me how long I've been here and I say 26 years, and they say, "Well what do you do?" I say, "I'm a computer programmer." Oh, you're not an astronaut or a scientist? We gotta make people aware that this NASA family, this Houston manned spaceflight effort is a large thing that support more than just the astronauts and the engineers. There are a lot of people who make their lives and living here and the publicity, I think, needs to be something, speaking from an old air force recruiter where I used to have to look at publicity all the time, we need to really look at the coming days to get the public support so they can come back to you Congressman and yea, heard about that, I want to support it. So I guess my question is to both of you folks, what do we plan on doing, or have we thought of what we plan on doing in the future for more PR, publicity, getting the word out.

DELAY: Well, I appreciate your comments and you're absolutely right that headquarters and Mike Griffin be focused on. And I believe he does, I believe he has exhibited in his own actions as well as in his directives to his immediate staff, I don't remember the name, but he appointed one person to do nothing but that. And I think

that's a first. To do public relations, to reach out, to develop a plan, to tell our story to the American people. So I think that you will see, particularly in the very near future, to much more aggressive approach to selling the vision and showing what we are all about and what we want for the future.

COATS: You know we spent an hour this morning talking with Greg Hayes and his staff about the kind of budget constraints we have as far as our public affairs and so forth. One of my jobs, frankly, is to be out there making the case at NASA headquarters that this is an important part about what we do. And we need to find the budget if we possibly can to increase that. So again it's part of being a salesman for the space program as internally I've got to convince them to invest the money, wisely here. The return, I think, is tremendous. And that's one of my responsibilities as well.

E. HAWLEY: And Mike, our associate administrator for public affairs is in the audience this morning and he and I can be in your office any time.

COATS: (Laughter) Good

E. HAWLEY: I think we have another question over here on the right.

QUESTION: I agree with what you said. The public cannot support what they don't know about, and after September 11th we heard PSAs all over the television for the FBI, from Homeland Security. These are government agencies. If they can do it why not us?

?: Amen, Amen, you're absolutely right.

E. HAWLEY: And, question here in the center.

QUESTION: I was wondering if you could update us as to what the current thinking is on the future of the shuttle. Are we going to fly a set number of missions no matter how long that takes, or are we going to fly until 2010 and stop wherever we are?

COATS: The, uh, good question. (laughter) Wayne Hale has been educating me on the budget situation but what's happened as you all know is that we've, the President set a deadline and said we're going to quit flying in 2010 and Mike Griffin certainly intends to adhere to that deadline. In order to plan to quit flying the shuttle 2010, decisions are going to be made over the next few months and years that will kind of lock us in to that timeline. It would be very difficult, as Wayne was explaining to me, to at the last minute to say we'd like to fly a few more flights. So we really do need to plan, see what we can get done as far as the space station over the next five years. And we want to complete the space station as much as we possible can. But there needs to be a plan to fly out the shuttle and right now 2010 is that plan.

DELAY: And the NASA reauthorization bill does formalize the policy of NASA having a minimum of a gap in the retirement of the shuttle and the creation of the CEV so frankly, those decisions are being made right now. And one of the struggles we're having with the OMB is trying to convince them that this is, to implement the vision is different than say other government agencies and programs. Because it's not just a matter of cutting to save money, it's a matter of policy and decisions of policy when you're talking about the budget. And you can't cut the budget without changing the policy, and their absolutely going to have to make a decision in the next few weeks as to, do they want the vision or not. And if they want the vision there are at least a certain number of shuttle flights that have to happen between now and when we get a CEV and at the same time we have to be moving toward that CEV, so there's little or no gap from moving from the shuttle to the CEV. And that's a decision that's being made now, as we speak.

E. HAWLEY: We have another question over here on the right .

QUESTION: It was great to here what you said about not invented here being not acceptable and also that we are going to learn from experience. One thing I've learned, especially from working in the space station program is, everyone talks about lessons learned, alright? It seems to be an important thing. But there always seems to be a problem with lessons learned getting derailed at some point and really being put into practice. So my question for you is what specifically do you think you can do to make sure that does not happen? Especially as we build Constellation and want to learn from experience

COATS: One of the things that we've learned in industry is that we have to have a formal lessons learned program that we go back to repeatedly. We're very good about documenting the lessons we've learned and I've got a whole lot of lessons learned documents and we spent a lot of money and a lot of time developing those documents and then we've put them on the shelf and we go off and make the same old mistakes. That's a human, a natural thing to do for humans. So what we will be looking at is ways that we implement and incorporate those lessons learned in the way we do business. I've got some ideas and I want to sit down with the folks when we have a chance. A new Director of Engineering and the programs and say how can we implement all these lessons learned. NASA has some fantastic lessons learned documents, but we've got to capitalize on them. At the same time, like I said, there is no substitute for experience. I intend to use even the retired NASA corps, if you will, as necessary to come in and review. I did that in industry, I called them the blue team, the didn't like gray beards, (laughter) So I intend to use that expertise to review what we're doing on a regular basis.

Are we missing something obvious that they had to deal with during the Apollo program or whatever? But you make a very good point, we're excellent at documenting lessons learned, but we're doing a lousy job using them as we develop new systems.

QUESTION: I also head up the Citizens for Space Exploration trip to D.C. annually. And the Congressman has been a proponent, supporter of that trip. And General Howell has been in the past as well. What I noticed in just the hour that I've been here is that there are a large number of organizations here that are trying to communicate to Congress and to the American public the value of our space program. What I think would be prudent for us to do at this point time, I don't want to add something more to your table, on your plate there Mike, but is maybe have some sort of joint organization lead by someone in this community, to bring these organizations together. So instead of trying to communicate bit by bit, this message, we can combine our forces, at least here locally, and then have a joint message to the organizations, to the American public, we can start from here and it could be grass roots movement growing to other centers throughout the agency.

COATS: Great point Larry, uh, come see me, we'll talk about that some more. One thing I would like to develop some talking points that virtually all of us can be ambassadors for the space program that we want to make the points as we interface with the public out there. And we need to do it as a team to get maximum benefit of our resources. Good point:

E. HAWLEY: Do we have another questions, there one in the front row.

QUESTION: I want to follow up on a couple of things that Congressman Delay said and some of the other folks in the audience, with regard to this business of trying to

communicate. I've only been here about 11 years, I'm not a long timers like some of these other folks, so I don't know a lot of history. But the short history that I do know is that in the early years of being here we spent a lot of time speaking directly with staffers, congressmen, the President came, spoke with him personally about the various things, and these major decision makers, when they went back, had first hand knowledge rather than the 30 second elevator read on what it is to make a decision. The question I have for you is, do you foresee in the time that you envision leading us here, and we're very grateful that your willing to do that, would you foresee a return to where we would have a lot more of this kind of visitation to Johnson Space Center.

DELAY: If that's a direct to me, yeah we've already started that actually. We had Ken Calvert, who is the Chairman of the Subcommittee on Space on the Science Committee here I guess about a month ago. Some of the other member came with him. We are actively trying, we have created, I have created a action team of members of Congress, members themselves that are interested in space where we meet on a regular basis and strategize as to how we can, within the House of Representatives, how we can reach out to other members and educate members. Part of that is getting more and more members down here to see what's happening here at JSC and you're going to see, especially over the next few months, more and more members coming down here. This community has been fantastic about opening up and welcoming them and entertaining them and showing them around, and it's fantastic. And that just grows, because the members that come, the get hands on experience, they get to fly the shuttle, all that kind of stuff, and they're excited about it when they go back and they talk to other members and that helps us convince other members to come down here. So, yeah, that's ongoing and we hope to get

the President down here pretty soon to highlight his vision. It would be nice if he did it from Johnson. I know Kennedy and others might be competing for his time, too.

E. HAWLEY: Any more questions? We have time for one or two more questions before we have to close for the day.

QUESTION: The question I've got is, what do you see as the role and relationship of JSC to various commercial space enterprises such as the state space ports and authorities and various upcoming programs such as rocket plane and Virgin Galactic, etc.

COATS: Well, number one, I am a big fan of commercialization, if you will, because I have seen the innovation, the creativity that can come out of that. While I can speak from experience there aren't any short cuts to space, it's not easy getting up there; I'm certainly looking for ways to do it as cost effectively as possible. And like I said, I'm open for benchmarking against anybody out there so I'm anxious to work with the commercial companies and understand what they're doing out there. Mike Griffin has made it plain that he's very interested in taking advantage of commercial opportunities. I sat down with Al Lindenmoyer yesterday for about an hour talking about his efforts along those lines, and hopefully we can, they've set aside \$500 million to pursue those opportunities and we intend to do that. So I'm very anxious to learn about that if we can. We, again, let me emphasize the not invented here mentality. We cannot put up with that. We have to go out and learn. Have an open mind about what's out...we have tremendous amount to offer after 40 some years of space flight, but we've also got a lot to learn from other people as well. So I encourage everybody to be out there asking questions, learning what you can, taking advantage of the work other people are doing. Because we're going to be budget constrained for the foreseeable future, we need, we

can't afford a whole lot of redundancy. We can't reinvent the wheel, we've got to go out there and take advantage of it where it is. I'm looking for efficiencies wherever I can find them.

E. HAWLEY: Okay, and I don't see any other questions out here, Congressman or Mike if you have any final comments you'd like to make?

COATS: Well, I want again, it's enjoyable for Diane and I to be here. It's fun to see a lot of familiar faces, some of the faces are a little heavier, a lot more gray hair than when I left 14 years ago. I speak from experience there. We've got a real challenge ahead of us, but where there's challenge, there's opportunity. I think the next 5, 10, 20 years are going to be tremendously exciting for all of this, and I'm privileged to be a part of it. I hope we'll look back some day and say, I had a hand in making some things happen. So, I'm looking forward to working with all of you. E-mails work, phone calls work, come by and see me anytime.

E. HAWLEY: Great. Thank you very much and thank you all for coming.

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