

**Prepared Remarks for JSC All Hands**  
**Mike Coats, Director, Johnson Space Center**  
**October 22, 2010**

**Vision:** NASA leads scientific and technological advances in aeronautics and space for a nation on the frontier of Discovery.

**Mission:** Drive advances in science, technology, and exploration to enhance knowledge, education, innovation, economic vitality, and stewardship of the earth.

Report from agency leadership retreat last week:

Reviewed draft agency goals: JSC participates in 5 of 6

- goal 1: expand and sustain human activities across the solar system
- goal 2: expand scientific understanding of the Earth and the universe in which we live
- goal 3: create the innovative new space technologies for our exploration, science, and economic future
- goal 4: advance aeronautics research for societal benefit
- goal 5: enable program and institutional capabilities to conduct NASA's aeronautics and space activities
- goal 6: share NASA with the public, educators, and students to provide opportunities to participate in our mission, foster innovation and contribute to a strong national economy

In context of discussing how best to move forward as an agency leadership team, we discussed three themes: **trust, affordability, credibility**

- The changes to our previous plan introduced by the President's budget, and the subsequent advocacy of a variety of plans among different stakeholders has caused trust to be an issue in the past; however trust, affordability and credibility are the cornerstones by which the agency will build its future plans. Open, honest discussions took place at the retreat that helped to shape the way forward.
- The recent passage of the authorization bill, signed into law by the President, now provides direction that the leadership team pledged to support. Major elements of the bill relating to human space flight are:
  - Long-term goal of NASA's HSF and exploration efforts shall be to expand permanent human presence beyond LEO and to do so, where practical, involving international partners
  - Directs NASA to develop a multipurpose crew vehicle and a space launch system with the goal of full operational capability by the end of 2016

- Authorizes NASA to continue to support COTS, and to continue and expand CCDev, and provides for some activities associated with follow-on commercially-developed crew transportation systems such as development of detailed human rating processes and requirements
  - Directs NASA to fly the LON shuttle mission
  - Extends ISS until at least 2020
- Still need appropriations bill to develop a more detailed plan for this; however, one thing the leadership agreed on is that we need to focus heavily on affordability in order to develop a plan that will be credible to OMB to carry out these activities within the given budget.
- Each leader was asked to make a pledge at the end of the retreat, and my pledge was that JSC will do everything we can to come up with an affordable and credible plan.

Let me mention some of the activities going on that focus on affordability.

- One of the actions out of the JSC senior staff retreat last month was to pursue an affordability initiative. While we're still formulating the specific actions, we've discussed items like implementing a streamlined oversight/insight model for development work and beginning in-house engineering activities associated with exploration.
- We'll also continue benchmarking best practices, and pursuing innovative strategies, such as the use of open innovation platforms where our Space Life Sciences directorate has broken new ground. Following on the successful pilot to engage problem solvers around the world to find solutions to posted challenges, the agency, with JSC's leadership, has developed an internal open innovation platform, NASA@work. We've already had over 1300 people on the JSC team sign up to be problem solvers.
- In addition, several weeks ago, I chartered a technical capabilities tiger team at JSC to both prioritize our capabilities, and look at options for maintaining capabilities with fewer resources. As a result, both Engineering and MOD are engaged in directorate-wide efforts to preserve their core capabilities and facilities with a minimum of resources. Our center technical capabilities efforts dovetail with an agency effort to map facilities, assets and workforce to technical capability, group them into portfolios, and prioritize.
- Another agency-level activity is the HEFT affordability team where people across the agency, including several JSC folks are providing input on how to develop an executable exploration program with the available funding.
- Viable spacecraft development is of the highest priority to JSC and one of the two key elements of a human exploration program. The Orion project has spent the last few months revamping their entire plan in order to move forward under a much

different cost profile than previously planned. They have prioritized all Orion Prime and Nonprime content at all NASA Centers. Their team has also scrubbed all content including project management and support. The Orion Team has also made all technical data available at the team levels for rapid, cost efficient communications.

At JSC, we've focused on innovation and collaboration for the last several years, and that focus will be even more critical in the future.

- Through bar camps, the innovation speaker series, the collaboration center in Bldg. 3, the innovation charge code to test out new ideas, and our innovation fair, we've encouraged people to relook at how we do business, both in terms of incorporating new technology and new processes.
- We're also looking at ways to strengthen and expand alliances and partnerships, whether with other Centers, with commercial crew companies, other government agencies, academia, and a range of industry partners. Last month many of our senior leaders participated in an innovation and partnerships summit to encourage closer ties – where it makes sense – to non-aerospace industries important to the greater Houston economy. And just last week, with AIAA sponsorship, we hosted a commercial human space flight symposium, to cultivate relationships with the commercial space community and talk about the expertise, experience, and lessons learned that we have here that can help them succeed as quickly as possible.

There are a couple of other new developments that I wanted to mention today:

- Last month, the ISS multilateral control board approved an international docking standard, thanks in large part to JSC engineers and ISS program personnel. Earlier this week the interface agreement was posted on a public website, and NASA's implementation of the standard, featuring low impact docking system technology is headed toward a critical design review milestone next spring.
- Also earlier this week, the NASA Human Health and Performance Center was established, through the leadership of Jeff Davis and our Space Life Sciences group. The main goal of the center is to integrate human health and performance efforts across NASA and with member organizations which so far include the FAA, Stanford, UTMB, and Baylor, with several other government agencies, universities, and corporations likely to join soon. The desired result is to achieve advances in human system research and technology in a shorter time period and for less cost.
- And on ISS this week, we activated for the first time the Sabatier system that is designed to recover water from exhaled carbon dioxide. In concert with the oxygen regeneration system, this creates nearly a closed cycle between water, oxygen, and carbon dioxide, leading to a much more sustainable life support system.
- I'll be in Florida on Monday for the flight readiness review for the STS-133 mission to ISS. Thanks to the expertise and hard work of the JSC team, we're continuing to

carry out successful missions and expeditions and must remain vigilant in our attention to detail, and vigorous in questioning anything that could affect safety and mission success.