

# **NASA ADVISORY COUNCIL**

## **Exploration Committee**

**April 29, 2010**

# Exploration Committee Members

- Mr. Bohdan Bejmuk
- Ms. Nancy Ann Budden
- Mr. Joseph Cuzzupoli
- Capt Rick Hauck
- Mr. Richard Kohrs, *Chair*
- Dr. John M. Logsdon
- Dr. David Longnecker (absent)
- Gen Lester Lyles (absent)
- Dr. Bette Siegel (Acting Executive Secretary)
- Ms. Jane Parham, Administrative Officer

# Exploration Committee Agenda

April 26-27, 2010

- **ESMD Status**  
D. Cooke
- **ESMD – FY11 Budget Overview**  
D. Cooke
- **ESMD - Challenges**  
D. Cooke
- **Exploration Committee 2010 Work Plan Content Overview**
- **Exploration Committee 2010 Work Plan Implementation**

# Exploration Committee

## Agency Guidance to ESMD on Constellation Program

- Proceed with work already underway unless it can be deferred and restarted without significant impact; proceed with work obligated, but not costed
- Continue incremental funding of existing contracts
- Coordinating with Office of Communication Planning (OCP) and OGC, ESMD is responsible for FY2010 disposition decisions regarding new scope, Coff, work extending beyond FY2010
- Continue to manage programs and projects
- Programs/projects will elevate urgent actions, issues, decisions when it cannot be resolved at Center level
- ESMD DPMC will concur on contract starts that have been awarded but where work has not begun prior to beginning the work

# Exploration Committee

## ESMD Approach to FY11 Budget

- Total of Ten Teams Stood Up
  - **6 pre-formulating new/expanded programs:**
    - Commercial Crew and Cargo Development Program
    - Exploration Precursor Robotic Program
    - Flagship Technology Demonstrations Program
    - Enabling Technology Development and Demonstrations Program
    - Heavy Lift Propulsion Technology Program
    - Human Research Program
  - **1 team assessing transition of Constellation Program**
  - **3 cross cutting for international, participatory exploration, integration**
    - International - Seeking potential international opportunities within the content of new programs
    - Participatory Exploration – Standing up Agency-wide office to ensure maximum public participation of NASA missions
    - Integration – Internal team ensuring coordination across all ESMD programs

# Exploration Committee

## Member Interfaces

- **Commercial Crew and Cargo Development Program - Logsdon**
- **Exploration Precursor Robotic Program - Budden**
- **Flagship Technology Demonstrations Program – Kohrs**
- **Enabling Technology Development and Demonstrations Program - Lyles**
- **Heavy Lift Propulsion Technology Program - Cuzzupoli**
- **Human Research Program - Longnecker**
- **International Cross Cutting – Logsdon**
  
- **Orion CRV - Bejmuk**
- **Human Exploration Framework Team (HEFT) - Hauck**

# Exploration Committee

## Overview

- NAC Exploration Committee consists of continuing members and new members. This was our first meeting together.
- Doug Cooke, AA for ESMD briefed the “State of Exploration”
- Part of our time was spent organizing and planning for future committee activity
  - Included the decision to interface with other NAC Committees, initially:
    - Technology and Innovation
    - Space Operations
    - Commercial Space
  - Members will also go on “Fact Finding” sorties at NASA HQ and Centers to better understand components that fall within Exploration Committee Terms of Reference

# Exploration Committee

## Challenges as identified by ESMD

- Stability – spent several months planning based on Presidents FY11 Budget
  - new direction April 15 per Presidents Space Conference to plan Crew Rescue Vehicle (CRV) without additional funding identified.
- Source of Orion Funds
- Scaling back of Orion
- Moving forward with Cx plans per President's FY11 Budget while maintaining compliance with FY10 congressional appropriations and Anti-deficiency Act
- Waiting to stand up new program offices pending congressional appropriations
- Implementing new programs expeditiously in FY11
- Transition of contracts, workforce, facilities, hardware
- Implementation of heavy lift decision by 2015
- What are implications in the event of a Continuing Resolution?
- Integrations with Space Operations Mission Directorate (SOMD), planning CRV launch integration and rescue operations
- Integration challenges of 4 technology initiatives across Agency ESMD, OCT, ARMD, & SMD.
- Impact of competition and/or conflict of a potential upgrade of crew launch capable CRV to commercial crew transport program.
  - Would this pose an impact to create a disincentive to the commercial market?

# Exploration Committee

## Observations

- **The Exploration Committee applauds the efforts of AA Doug Cooke in efforts to re-vector activities within EMSD in light of Presidential guidance**
- **With cancellation of Constellation Program, we observe that there are no active human exploration development programs or projects. What remains instead are commercial LEO activities and enabling technologies that are required to underpin a variety of potential future exploration missions. Care should be taken that the new requirement for Orion CRV not encroach on the present ESMD technology plan.**