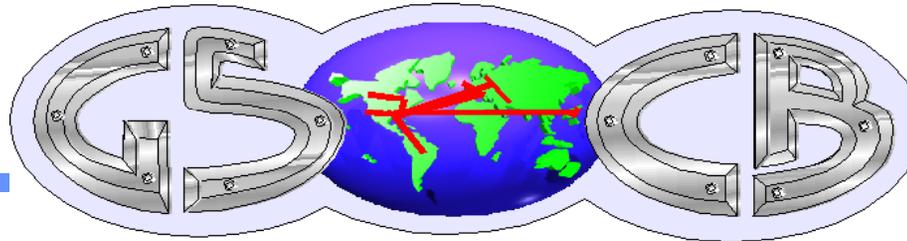
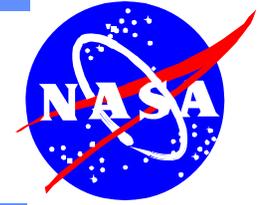




INTERNATIONAL SPACE STATION



GROUND SEGMENT CONTROL BOARD



NACAIT Status

(Network And Communications Analysis and Integration Team)

Network Support Group Meeting September 13, 2012

MTFanders/DD

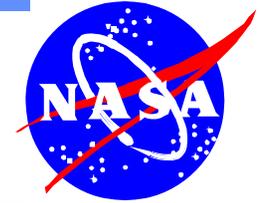
281-483-6069

Michael.T.Fanders@nasa.gov

“Pre-Decisional, For Internal NASA Use Only”



NACAIT Status



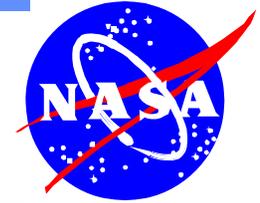
INTERNATIONAL PARTNER GATEWAY/INTERFACE STATUS

- **CSA**
 - ◆ Full Up Space Station Remote Manipulator System (SSRMS) Support
 - ◆ Transitioned to digital voice without issues
 - ◆ NSR37135 Two additional video channels – in work
 - ◆ OND October 1, '12

- **JAXA**
 - ◆ Full support JEM module
 - ◆ HTV-3: Released
 - ◆ HTV-4: NET June '13



NACAIT Status



IP GATEWAY STATUS (Cont)

- **ESA**
 - Full Up Columbus Lab Operations
 - ◆ ATV-3 (Edoardo Amaldi): On-orbit
 - Undocking September 25, '12
 - Re-entry/destruction September 26, '12
 - ◆ ATV-4 (Albert Einstein)
 - Launch NET March '13
- **ASI – Gateway at JSC, Comm Nodes at MSFC/POIC**
 - ◆ On-going operations to Permanent Multipurpose Module (PMM)
 - ◆ Gateway prime command/telemetry path for Swift spacecraft
 - Launched November '04
 - <http://heasarc.gsfc.nasa.gov/docs/swift/swiftsc.html>
 - Swift MOC at Penn State University; Ground Station at Malindi, Kenya
 - ◆ Gateway prime command/telemetry path for NuSTAR
 - Launched June 13, '12
 - <http://www.nustar.caltech.edu/>
 - NuSTAR MOC at UC Berkeley; Ground Station at Malindi, Kenya



NACAIT Status

IP GATEWAY STATUS (Cont)

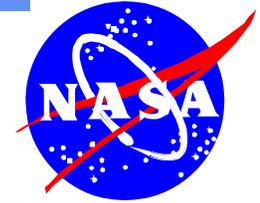


- **RSA - RSvG Mission and Administration Re-architecture Project:**
 - ◆ Voice switch replacement completed
 - Now operational on DICES
 - ◆ Digital voice transition completed



NACAIT Status

CRS/COTS Visiting Vehicle Status



- **MCC-X/SpaceX-Dragon** (www.spacex.com)
 - ◆ Launches (TBV)
 - SpaceX-1/CRS-1: (Work to) October 4, '12
 - SpaceX-2/CRS-2: NET December '12
 - ◆ NPRD Annex Retired
 - Any changes follows PRD update procedures
 - ◆ Increase of voice loops
 - 20 to 24 circuits

- **MCC-D/Orbital-Cygnus** (www.orbital.com)
 - ◆ Launches (TBV)
 - Orbital-Demo: NET Winter '12
 - Orbital-D1: TBD
 - Orbital-1: TBD



NACAIT Status

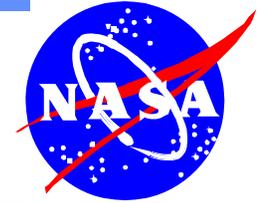


Multi-Purpose Crew Vehicle Program

- Multi-Purpose Crew Vehicle (MPCV)
 - ◆ Exploration Flight Test (EFT-1) Un-Crewed Two Orbit Mission
 - Launch - NET Spring 2014
 - Program Requirement Documentation
 - MPCV/EFT1 MSRD
 - ◆ Revision A approved
 - ◆ Requirements documented in the MPCV/EFT-1 Vol II, Flight Operations
 - LM – MSR
 - ◆ Basic (baseline) June 15, '12
 - ◆ Requirements documented in the MPCV/EFT-1 Vol I, Launch & Recovery
 - ◆ Eastern Range and GSDO requirements distributed September 5
 - ◆ Supplier responses expected September 19, '12



NACAIT Status

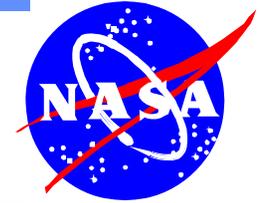


MPCV Program (Cont)

- MPCV (Cont)
 - ◆ Milestone Testing (no network issues reported)
 - MCC–EDL-H test completed early August '12
 - NSR36462
 - MCC–Denver completed late August '12
 - NSR36722
 - MCC-KSC-Denver voice checkout
 - NSR36723
 - Partial completion due to limited keysets installed at Denver facilities and voice quality issues
 - MCC-O&C test – NET '13
 - ETE-02 Live Sky (Denver and MCC) – NET May '13

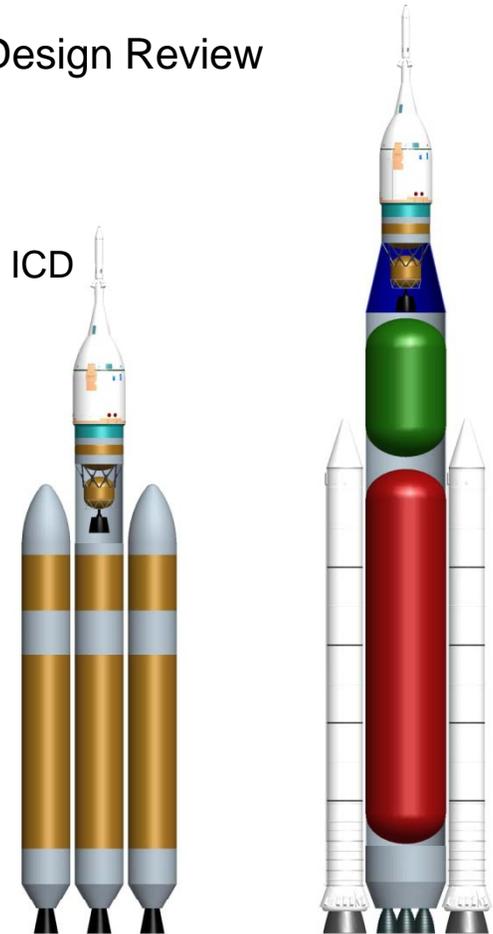
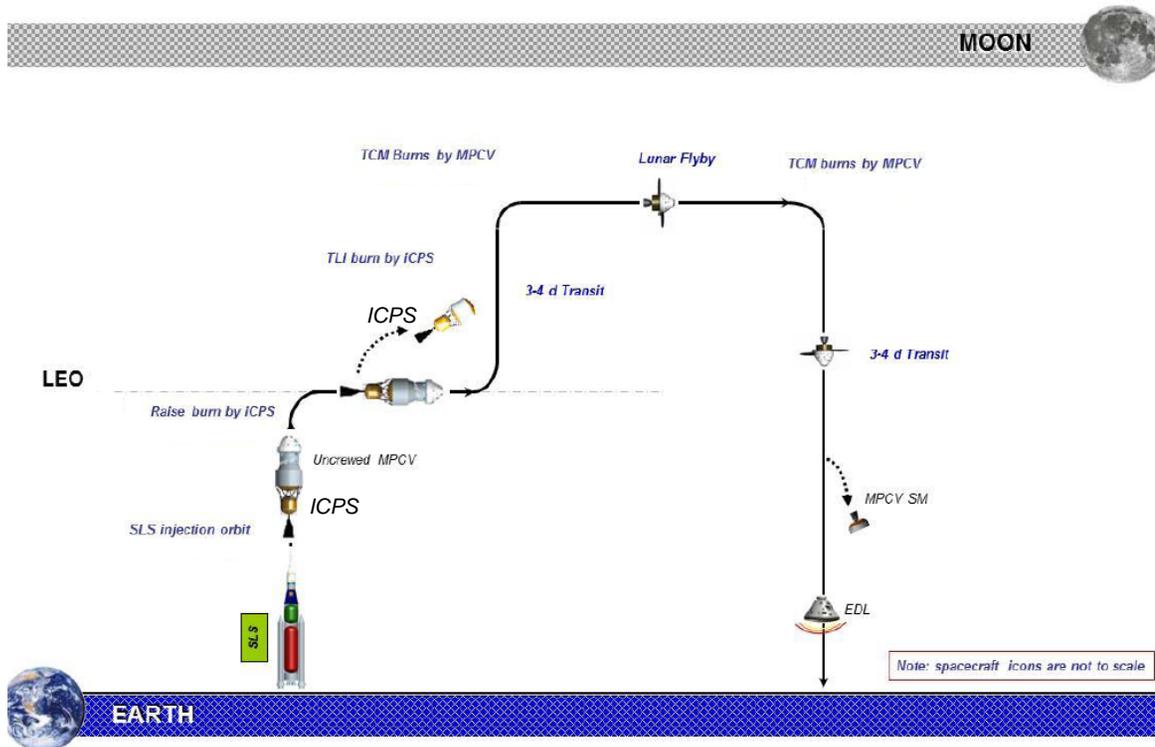


NACAIT Status



Space Launch System (SLS) Program

- MPCV/SLS EM1 - Un-Crewed Lunar Fly-By
 - ◆ Possibly two “MSRDs” being created to meet System Design Review (SDR) end of calendar year
 - Flight Ops and SLS?
 - ◆ An ICD in draft (SLS-MS ICD)
 - Combination Interface Requirement Document (IRD) and ICD



EFT-1
2014

First
SLS Flight
2017