

DATE: September 14, 2010

SUBJECT: NSG STS-133/134 Mission Planning Splinter Minutes

LOCATION: Teleconference

ATTENDANCE:

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INTRODUCTION

Mr. Erik Richards convened the September 14, 2010, Human Space Flight (HSF) Network Support Group (NSG) Soyuz-24/25/26 and STS-133/134 Mission Planning splinter meeting to review support requirements and the Integrated Network (IN) readiness to support STS-133 and -134 (refer to the presentations, *Soyuz-24/Expedition-25/Increment-25 & Soyuz-25/Expedition-26/Increment-26* and *STS-133/134 Mission Planning Splinter Meeting Integrated Networks Status*).

MEETING ITEMS

- A. Mr. Kevin Riley provided a Soyuz-24/Expedition-25 and Soyuz-25/Expedition-26 briefing. He provided a definition for expedition and increment. Mr. Riley reported that Expedition 25/Increment 25 begins with the Soyuz 22 undocking in September 2010. Three new crew members will then arrive on Soyuz 24. Expedition 26 begins with the Soyuz 23 undocking in November 2010. Three new crew members will then arrive on Soyuz 25.
- B. Mr. Richards reported that there have been two contract changes since STS-132. At Wallops, there is a new Wallops Range Control (Range Operations Center [ROC]) contract. This contract includes the Wallops 7m antenna, Ultra High Frequency (UHF) site, and C-band radars. The Wallops Ground Station (WGS) includes the 11m antenna and Very High Frequency (VHF) site and remains under the Near Earth Networks Services (NENS) contract. Operational interfaces will remain the same with the exception of scheduling. The NASA Integrates Services Network (NISN) contract change is the transition to the Networx contract. The Networx contract was awarded to AT&T.
- C. Mr. Richards reported that there has been a Space Network (SN) change since STS-132. SN in implementing Tracking and Data Relay Satellite (TDRS) apportionment. NASA customers will have routine access to only one SA antenna. The fleet will be managed like TDZ. Apportionment is effective the week of September 27, 2010. This will not impact Space Shuttle support.
- D. Mr. Richards provided an overview of the Dual TDRSS support scenario. Dual TDRSS support is being planned as a replacement for the loss of the Air Force Satellite Control Network (AFSCN) Remote Tracking Site (RTS) support for launch and ascent. The IN mitigation plan is that the SN will provide dual TDRS support for launch and ascent. TDE will support in addition to TDS. Mr. Richards reviewed the launch configuration (TDS, TDE, TDZ, and 171). Mr. Richards reviewed Dual TDRS testing. A simulation was conducted at the Merritt Island Launch Annex (MILA) using the STS Portable Shuttle Simulator (PSS). Testing was also conducted with the Electronic Systems Test Laboratory (ESTL). It was noted that the test with ESTL was not a true launch simulation, as ESTL can only see one antenna at a time. Additional testing is planned. Mr. Gary Morse asked if the only configuration change is the addition of TDE and Mr. Bangerter replied that it is the only change. East will be backup and if not available, it is not a launch hold. Mr. Bill Foster stated that there has been no Flight Rule change. Mr. Bangerter stated that the Program Requirements Document (PRD) will be updated. Mr. Morse asked if Rationale has been provided and Mr. Foster reiterated that there will be no Flight Rule change.

- E. Mr. Richards reviewed the proficiency testing that has been conducted and is planned.
- F. Mr. Richards reviewed the STS-133 and -134 IN diagram. TDE has been added to the diagram.
- G. Mr. Richards reviewed STS-133 and -134 SN support. Support is nominal and it was noted that Virtual Spacecraft can be supported.
- H. Mr. Richards reviewed the generic STS/International Space Station (ISS) TDRSS support diagram. Mr. Joe Aquino asked if a slide showing SN apportionment can be provided and Mr. Bangerter agreed to provide one to Mr. Aquino.
- I. Mr. Richards reviewed the STS-133 and -134 TDRS-275 support. Johnson Space Center (JSC) events will be scheduled on the SA2 antenna only. Full utilization of the East and West satellites is available. The SA1 antenna can only be scheduled if times are designated as Super Critical in the Critical Period Restriction Interim Support Instruction (ISI). These must be approved by the Network Director (ND). Super Critical events have been defined as docking and undocking for Visiting Vehicles (VV).
- J. Mr. Richards reviewed the STS-133 and -134 nominal integrated Ground Network (GN) configuration.
- K. Mr. Richards reviewed the STS-133 and -134 External Tank (ET) TV support. Support is nominal. The Radio Frequency (RF) Pad check is scheduled for September 24, 2010. The Briefing Message (BM) is prepared. There is no conflict with the Shuttle Training Aircraft (STA).
- L. Mr. Richards displayed the Mission Readiness Schedule (MRS). The STS-133 Operational Readiness review (ORR) is scheduled for December 16, 2010.
- M. Mr. Richards provided an STS-133 mission overview. The current launch date is November 1, 2010. Mr. Richards reviewed STS-133 specific testing. He reviewed the STS-133 IN Coverage Chart. There are two Extra Vehicular Activities (EVA) planned. The EVA activities have been changed to add ammonia pump work. The presentation will be updated.
- N. Mr. Richards provided an STS-134 mission overview. The current launch date is February 26, 2010. He reviewed the STS-134 IN Coverage Chart. Three EVAs are planned.
- O. Mr. Richards reviewed the documentation. ISIs and Operations Messages (OPN) will be issued for each mission.
- P. Mr. Richards stated that there are no issues or concerns.

ACTION ITEM REVIEW

No action items were assigned at the September 14, 2010, HSF NSG Soyuz 24/25/26 and STS-133/134 mission planning splinter meeting:

(Original approved by)
Mr. Erik Richards/GSFC/HTSI/HSF