

DATE: September 15, 2010

SUBJECT: NSG SN Status (Apportionment) Splinter Minutes

LOCATION: Teleconference

ATTENDANCE:

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## INTRODUCTION

Mr. Ron Miller convened the September 15, 2010, Human Space Flight (HSF) Network Support Group (NSG) Space Network (SN) status (Apportionment) splinter to provide an overview of upcoming change to SN scheduling of resources (refer to the presentation, *SN Briefing to Network Support Group* [this presentation is available by request only]).

## MEETING ITEMS

- A. Mr. Miller stated that Apportionment is a strong word that implies placing a wall between assets and this not true. Over time the plan has been worked to become a process of who has priorities in the forecast period.
- B. The policy was developed in response to the concern that was raised several years ago about the capability of 'lower priority' NASA missions to get adequate service time from the SN. The decision was made to 're-apportion' forecast scheduling priority on the network to ensure SN user satisfaction.
- C. Mr. Miller stated that HSF is still a priority.
- D. The plan is being implemented now to prevent problems from occurring in scheduling.
- E. The plan has begun in the Indian Ocean Region (IOR). The IOR was used as a test case. It was found that there are exceptions to every rule. The exceptions are being documented. One such exception is the "Super Critical" event. For example, HSF has a known exception for Space Shuttle/International Space Station (ISS) docking events on Single Access-1 (SA1) on Tracking and Data Relay Satellite (TDRS)-Z.
- F. Mr. Miller stated that it is difficult to schedule events requested less than 72 hours in advance. There is an intense planning cycle with a request. Permission is given to spread options over other regions.
- G. All NASA mission were laid into the AOR/Pacific Ocean Region (POR) priorities prior to other requests. 'Super Critical' events are not really needed in these regions. The assets are available for two HSF critical events.
- H. Mr. Miller discussed the AOR apportionment rationale. NASA loading requirements dictate priority for three antennas in the AOR. NASA has priority on SA2 on F10. Some Special Projects and Missions (SPM) can schedule SA2 by exception. NASA has priority on both SA antennas on F4.
- I. Mr. Miller discussed the POR apportionment rationale. NASA loading requirements dictate priority for 2 antennas in the POR. NASA has priority on both antennas on F5. F5 support HSF requirements for 2 antennas during ISS docking and undocking. For F6, NASA has an exception for the Hubble Space telescope (HST) while F5 is on the Space to Ground Link Terminal (SGLT) 3 (no Multiple Access [MA] services are available). NASA has an exception for Space Shuttle/Visiting Vehicles (VV) on SA2 on F6.
- J. Mr. Miller stated that this is a learning process and the plan will be changed as needed to improve services. Future changes will be driven by network capabilities. As the network changes, there are failures, degraded services, or new assets are launched, the plan will be re-evaluated. Realignments will be reviewed as well. Flexibility exists for network testing or downtime such as the removal of SGLTs for TDRS-K testing.

- K. Mr. Miller stated that other customers using Ka-band (such as ALOS) are limited to second and third generation TDRS SA antennas. There are no current Ka-band assets in the West. Scheduled MA is not impacted.
- L. Mr. Gary Morse asked if any modeling had been done on the typical Space Shuttle mission with apportionment applied. Mr. Miller stated that there had not, but the operational use of assets was reviewed. Lower priority missions are scheduled via TDRSS Unused Time (TUT) now. These users have to wait on the 'big' users prior to scheduling. This plan is meant to help the lower priority user.
- M. Mr. Joe Aquino stated that this briefing provided a different explanation than seen before. Mr. Miller stated that there have been recent changes and that TUT is available to AOR/POR as it is currently. Critical events should not be scheduled on TUT.
- N. Mr. Bob Marriott stated that the scheduling process via SNAS, does not allow the user to select a particular SA antenna. Johnson Space Center (JSC) had to work with the schedulers to block out an antenna so that the required antennas could be scheduled. More coordination was needed in scheduling. He asked if this issue is being worked.
- O. Mr Rich Romansky stated that this plan will not impact ISS. They are first on the schedule. Mr. Marriott stated that he is concerned with STS-133. Mr. Romansky stated that an exception is needed for Space Shuttle the West. Mr. Miller stated that the exception exists. Mr. Marriott stated that he remains concerned that when the schedule is input to the forecast, the wrong antenna will be selected.
- P. Mr. Jim Bangerter stated that HSF is not having issues and this plan takes a more global approach.
- Q. Mr. Aquino stated that the explanations in this briefing will help when taking the plan to JSC management.

#### **ACTION ITEM REVIEW**

No action items were assigned at the September 15, 2010, NSG SN Status (Apportionment) splinter meeting.

(Original approved by)  
Mr. Ron Miller  
GSFC/NASA  
ND, Special Projects and Missions