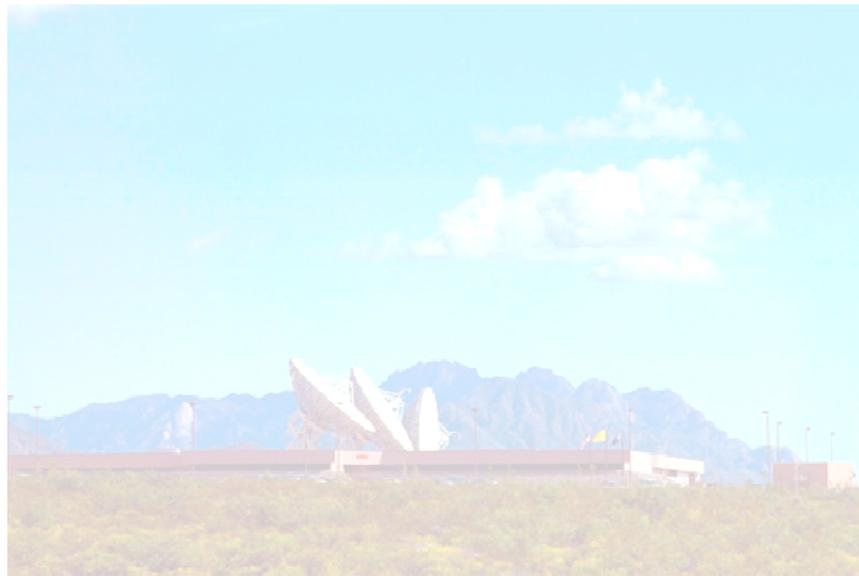




SN Status



20 October, 2011
D. Glasscock/TO&A Manager





TDRS Fleet Status



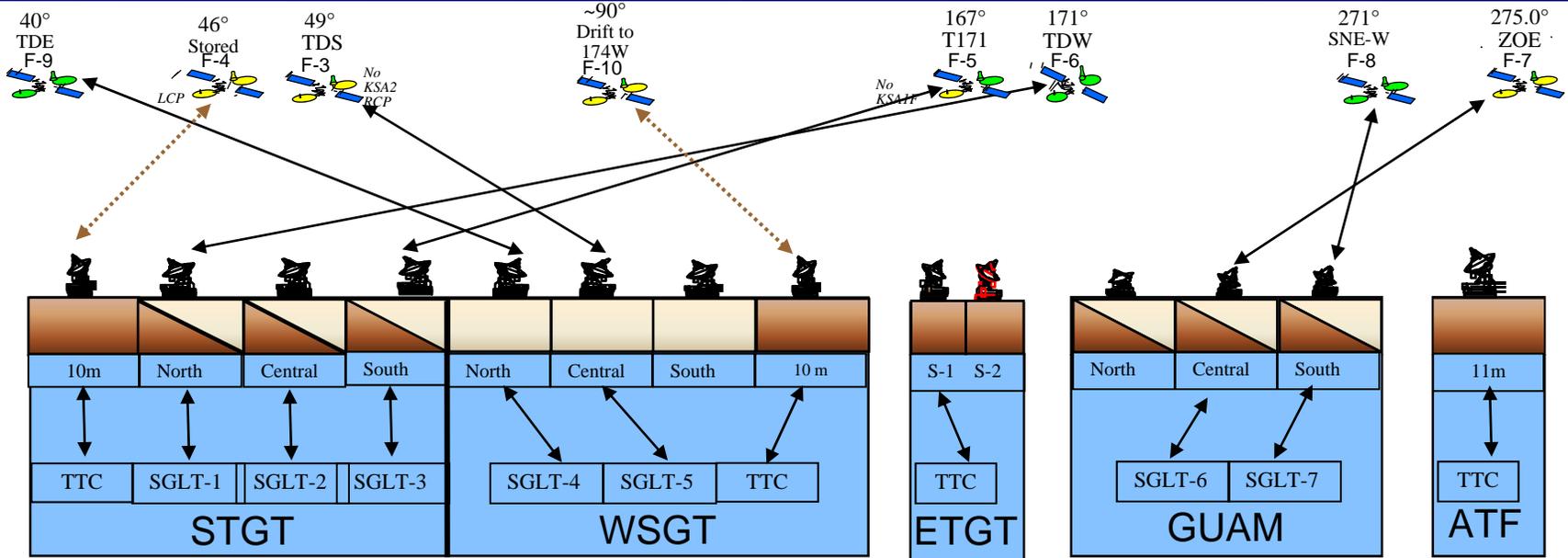
❑ Current TDRS configuration (*Oct 20, 2011*)

- TDRS-3 (TDS) 49° W (Launched 9/29/88)
- TDRS-4 46° W – stored S-Band (Launched 3/13/89)
 - End of mission 14 Nov 2011
- TDRS-5 (171) 167.5° W (Launched 2/8/91)
- TDRS-6 (TDW) 171° W (Launched 1/13/93)
- TDRS-7 (TDZ) 275° W – Guam ZOE (Launched 7/13/95)
- TDRS-8 (271) 271° W (Launched 6/6/00)
- TDRS-9 (TDE) 40.9° W (Launched 3/8/02)
- TDRS-10 96.25° W – drifting W to 174W S-Band (Launched 12/5/02)





TDRS Constellation Configuration



Upcoming Activities)

- TDRS-4 End of Mission
- TDRS-10 Relocation Maneuvers to 174W (on station 2 Dec)
- TDRS-K SGLT-2 Modifications (09/30-10/07)
- TDRS-6 Drift East (Qtr 1 2012)

Legend

RF SGL

- ↔ Ku-TTC
- S-TTC
- S-TTC Temporary Handover

Capability

- Dual Ku and S-band TTC Support
- Ku-band TTC Support
- S-band TTC Support

Service Status

- Operational
- Constraints/Stored #
- Failed ##





TDRS Fleet Status



❑ TDRS Eccentricity Management

- Received NASA concurrence to relax the TDRS eccentricity requirements to less than 0.00175 to support ISS antenna limits
- Based on potential issues with ISS, this action was suspended in late March 2010
- Awaiting suspension release from JSC

❑ TDRS-4 is positioned at 46° west

- TDRS-4 Super-sync activities begin 14 Nov 2011

❑ TDRS-3 Space-to-Ground Link (SGL) dedicated downlink TWTA

- TWTA #2 helix current continues to rise with an expected failure date some time this summer.





WSC Hardware



❑ Antenna SSC Replacement

- STGT and GRGT installations complete
- EC-CP107-1 Discrete Daughter Board Rev-B closed on 9/15/2011
- Firmware testing and installations ongoing in WSGT SGLTs
- Installations to be performed on HSM chains for operational soak period

❑ 25 Mb FWD EC-TO150-1

- Hardware installation and testing is complete
- Final redlines to EC-TO150-1 submitted to HW CM
- Awaiting TO&A SHO testing with ESTL (potential timeframe in November 2011)





WSC Hardware



Mission Operations Voice Enhancement

- All installations complete at: STGT, WSGT & GRGT
- All legacy voice system removals complete at: STGT, WSGT, & GRGT
- Final MOVE ORR held on 9/26/2011
- 6 RFAs being worked
- No cost extension to POP until 11/31/2011

SCNS TO-94 WSC Shuttle Unique H/W and S/W Removal

- Draft PRD distributed 10/14/11





WSC Software



SW 10007

- TDRS-K installed on SGLT-2 10/11/11

SW 25MBFWD

- Delivered to the STGT 06/06/11 and WSGT 06/28/11

SW MSA1000

- Transitioned to SGLT-6 USS/EXEC 10/07/11

SW SLP001

- Delivery completed 10/11/11

SW SIMOSKIF

- Transitioned STGT 09/28/11 and WSGT 10/11/11

SW TTTC0201

- Testing completed 10/13/11

SW TO-74 SSCIII

- Testing in progress.





TDRS K/L Project



❑ SCNS TO83 Support

➤ Overview

- NASA 454 Contractors, Boeing and General Dynamics, integrating new RCTS, MABE, TTC, and KaEET for next generation satellites
- SCNS supporting integration and test (I&T) activities as well as development of TDRS K specific facilities - Boeing Back-up MCC (BuMCC) and TDRS K TOCC

➤ Schedule

- TDRS K Contractor has completed I&T for three SN systems (SMTF, S-STTC, W-STTC); currently undergoing I&T for SGLT-2
- TDRS K Contractor baseline software 10006 was merged with SN baseline; subsequent WSC software updates (25MBFWD, SIMOSKIF) will be incorporated in the TDRS K software baseline to maintain continuity for the final merge
- SCNS has completed the TDRS K TOCC facility for use in mission rehearsals and on-orbit test; supported development of the BuMCC facility
- SCNS Contractor received train-the-trainer training by the TDRS K Contractors; currently propagating TDRS K training to the WSC





WSC VHF



❑ New VHF-1 Tower and Antenna

➤ Overview

- Procure and install a new VHF-1 antenna at WSC
- Relocate existing VHF-1 ground hardware to site of new antenna

➤ Current Status

- New tower and antenna on order – NRE in progress
- EC to relocate VHF-1 Equipment in development – expect approval 11/9/11
- Anticipate implementation completion by mid-December

