



---

# SN Status



**19 April, 2012**

**D. Glasscock/TO&A Manager**





# TDRS Fleet Status



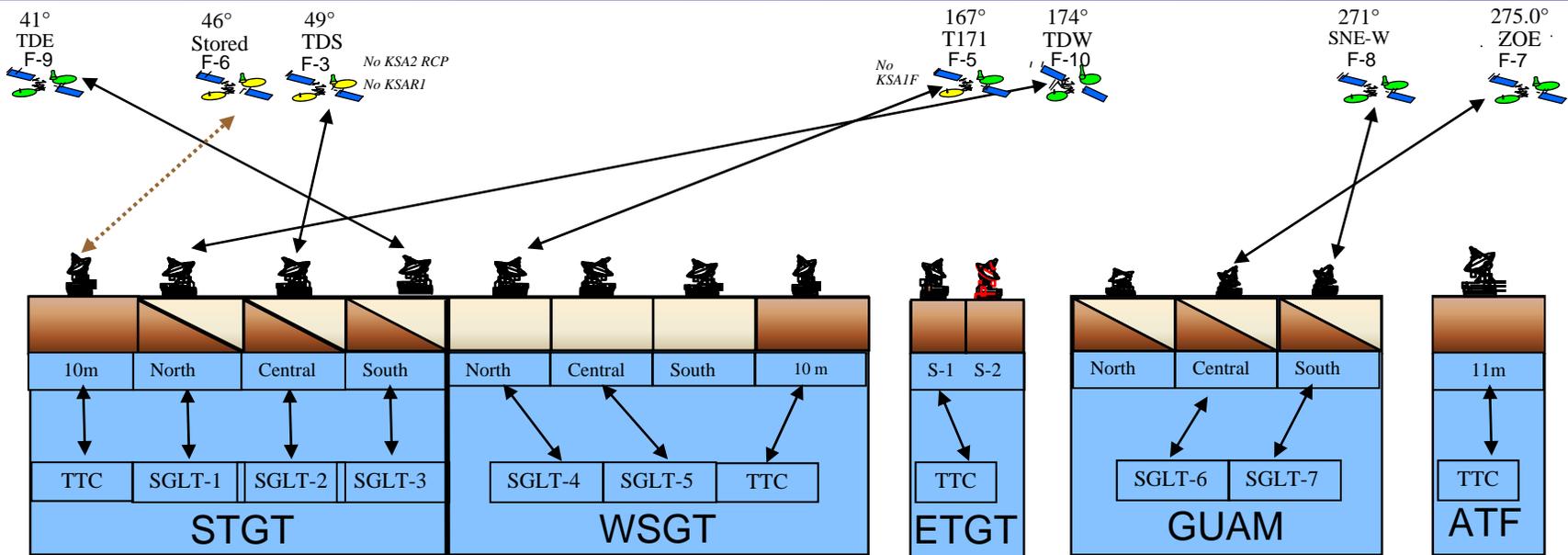
## ❑ Current TDRS configuration (*April 19, 2012*)

- TDRS-3 (TDS) 49° W (Launched 9/29/88)
- TDRS-5 (171) 167.5° W (Launched 2/8/91)
- TDRS-6 46° W (Launched 1/13/93)
- TDRS-7 (TDZ) 275.25° W – Guam ZOE (Launched 7/13/95)
- TDRS-8 (271) 271° W (Launched 6/6/00)
- TDRS-9 (TDE) 41.1° W (Launched 3/8/02)
- TDRS-10 (TDW) 174° W (Launched 12/5/02)





# TDRS Constellation Configuration



### Upcoming Activities)

- TDRS-K SGLT-5 Modifications (thru 21 May)
- TDRS-K Launch (December 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-3 (TDS) Space-to-Ground Link dedicated downlink TWTA Failing

- NASA has decided to shut off the TDRS-3 SGL KSAR-1 TWTA.
- NAM 1555 KSA1 Return services will no longer be available after 9 April 2012.
- Service will be reactivated to support USS-CR testing through TWTA failure.





# WSC Hardware



---

## ❑ WSC Phone Transition at STGT & WSGT

- All Siemens Phone installations complete 30 March 2012
- All legacy ROLM phone removals complete 31 March 2012

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

- Nov 7, 2012. Work stopped on TO-94 at WSC to do a TO-31 study to see how much work, if any, should wait until SGSS, and to assure TO-94 would minimally impact higher priority tasks.
- Apr 13, 2012. Study complete, awaiting direction from Mike Rackley for approved path forward.

## ❑ USS-CR Implementation

- Work is scheduled to begin July 2012 on SGLT-5 SA1 equipment chains.





# WSC Hardware



---

## ❑ Antenna SSC Replacement

- STGT and GRGT installations complete
- Replaced SSC in WSGT North Antenna on 3/27/2012
- Firmware testing and installations ongoing in WSGT SGLTs

## ❑ GDIS-R IPE S/W Patch

- WSC is unable to duplicate the anomaly in the test bed.
- WSC created an IPE anomaly on two events with SGLT-6. However, these events occurred randomly over several acquisition scenarios.
- WSC has determined the Vendor patch installation has a high risk
- SSAR-2 IPE-A and IPE-B are crossed-patched per TSI





# WSC Software



---

## SW 422REPL

- WSGT DIS ADPE completed 02/28/2012

## SW 422REPL

- STGT DIS ADPE completed 03/07/2012

## SW MSA1000 F/W

- Installed on the STGT DIS ADPE 02/21/2012

## SW MSA1000 F/W

- Installed on the WSGT DIS ADPE 04/04/2012

## SW OPS003/PORTS001

- Scheduled for WSGT delivery on 05/23/2012

## SW OPS003/PORTS001

- Scheduled for STGT delivery on 05/15/2012

## SW DAS004

- Scheduled for delivery on 05/01/2012





# 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, SGLT-2, SGLT-1); currently undergoing I&T for SGLT-5.
- TDRS-K Contractor is scheduled to complete work on SGLT-4 and SGLT-3 following work on SGLT-5.
- 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 personnel.





# 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 installed at ETGT.
- Uplink enable and MRT failover is by local switching at ETGT.
- Elevation Positioner was replaced by the Installation Vendor.
- System will change to yellow following WGS Engineering Assessment.
- Available to support contingency communications with ISS.
- Troubleshooting audio echo in the VHF-1 Voice circuit.
- Camera EC development pending voice anomaly resolution.

