# **DSN** Antennas Supporting T14

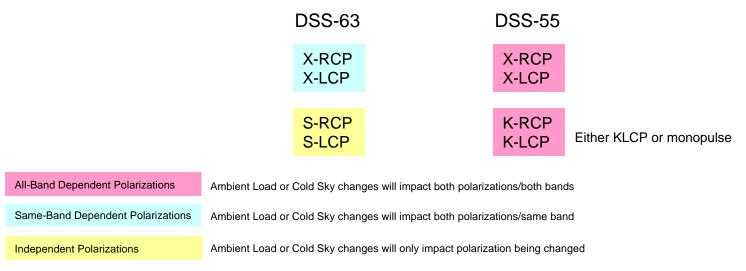
#### Passes:

Station	Pre-cal	BOT	EOT	Post-Cal
DSS-55	140/0845	140/1150	140/1525	140/1625
DSS-63	140/0850	140/1150	140/1525	140/1625

#### **Equipment scheduled:**

- 2 closed-loop receivers per antenna
- All RSRs and VSRs at Madrid (eight subchannels total)
- WVSR at Madrid

#### **Simultaneous Band and Polarization Capabilities:**



## **RSR/VSR** Assignment

DSS	Operator	Station	RSRs or VSRs	RSR Assignment
63	Danny	rsops1	RSR1	RSR1A -> XRCP
				RSR1B -> XLCP
63	Elias	rsops2	RSR2	RSR2A -> SRCP
				RSR2B -> SLCP
55	Don	rsops3	VSR1 and VSR2	VSR1A -> XRCP
				VSR1B -> XLCP
				VSR2A -> KRCP
				VSR2B -> KLCP

Roberto will operate WVSRs

### **Bistatic Calibrations**

- Calibrations will be performed during
  - Pre-cal (antennas at stow)
    - 3-hr pre-cal periods were scheduled
      - Normally 60 minutes at 70-m and 90-m at BWG for Ka-band support
  - Observation (mini-cals)
    - Pre-determined and carefully selected times
      - More from Essam
  - Post-Cal (antennas at stow)
    - 1-hr post-cal periods were scheduled
      - Normally 15 minutes

# ORTs Completed in Preparation for T14

DOY 126 (5/6) over DSS-55 (X- and Ka-band):

Pass: 06 126 1130 1300 2200 2215 DSS-55 CAS TP RSR23-BIORT1 3134 N750 Also TP

- Objective
  - Collect pointing data (monopulse)
- Results:
  - Nominal ORT. Objective met

DOY 134 (5/14) over DSS-63 and DSS-55 (S, X, and Ka-band)

Pass: 06 134 0940 1245 2145 2245 DSS-55 CAS TP RSR24-BIORT2 3142 N750

Pass: 06 134 0945 1245 2145 2245 DSS-63 CAS TP RSR24-BIORT2 3142 N655 Also TP

- Objective
  - Practice bistatic calibrations at both stations during pre- and post-cal periods
  - DSS-55 to perform a monopulse on-point phase cal
  - Verify KLCP at DSS-55, and test switching between monopulse and KLCP
  - Collect pointing data at DSS-55
  - Verify RCP and LCP at each antenna, both bands
- Results:
  - Successful pre-cal and post-cal calibrations (except for Ka-band noise diode problem)
  - Switching between monopulse and KLCP nominal
  - RCP and LCP verified. Stations in correct configuration
  - Problems:
    - Monopulse during first 90 minutes of track. Two on-point phase cals required. DR# M103698
    - Ka-band noise diode. DR# M103697