



## TPS Series Radar Upgrades



### REPLACED/UPGRADED EQUIPMENT

- Display
- Transmitter
- Rotary Joint
- Frequency Generator
- IFF
- LNA
- RF Driver

### ADDITIONS

- L-band Transmitter & Receiver System
- Processor Tracker Server
- Data output via
- TFOCA, Fiber Optic Interfaces

**DISPLAYS:** Existing displays will be replaced with our new LCDs with significant software enhancements to provide operators with tactical interfaces. Our TSS COTS hardware will significantly increase the mean time between failures (MTBF).

**TRANSMITTER:** The entire transmitter will be replaced with our enhanced version. Upgraded Klystron will extend performance and minimize maintenance requirements. Eliminates the SF6 tank.

**ROTARY JOINT:** Completely replaced with an S-Band section coupled with a multi-channel fiber optic rotary section and a powered coupler providing up to 60 amps per phase of on-antenna powered circuits.

**FREQUENCY GENERATOR:** Will be replaced with a solid-state, ultra-stable system, replacing the crystal set and upgrading most of the electronics. The benefits are increased MTBF and a much more stable MTI operation.

**IFF:** The UPX-27 will be replaced with a TSS enhanced UPX-37 to allow dual transmitters permitting Mode S/5 transmissions.

**LNA:** TSS' re-engineered LNA uses state-of-the-art low noise amplifiers which are microprocessor controlled for phase and gain settings. Providing flatter, lower noise and more consistent receive pulses.

### ADDITIONS:

TSS will install an L-Band transmitter/receiver on the antenna creating true dual-band capable radar.

A new TSS processor Tracker System will facilitate automatic data reduction by tracking moving aircraft and delivering this data via TFOCA.

TSS will install an enhanced RF Driver; all-solid-state which will increase the MTBF and stabilize the output creating more stable transmissions that facilitate better Doppler detection.

**We've Got Your Track™**

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