Receiving Set, Satellite (RSS), TMQ-54 (New Requirement). FAC: 1341

CATCODE: 149XX9
OPR: AFWA/A5/A8, MAJCOM/A3W
OCR: MAJCOM/A6

1.1. **Description.** RSS, TMQ-54 is a 24/7 unmanned METSAT DRO system. It is a polar METSAT only system with a 1 m (3 ft) or 1.4m (4.6 ft) (site selectable) L-S band antenna. Primary indoor processing equipment includes a data acquisition system (DAS) and network data server. Users worldwide access the network data server directly via NIPRNet common user communications using MARK IVB FAS, which also provides robust imagery analysis capability.

1.2. **Requirements Determination.** The RSS provides real-time METSAT imagery that directly supports all DoD services' wartime mission execution and resource protection for the contingency theater(s) to which it is deployed. Obtain further requirement determination information through AFWA/A5/8 or MAJCOM/A3 weather staff.

1.3. **Scope Determination.** The antenna requires a 360-degree unobstructed view (5-degree elevation angle). The indoor equipment requires a normal temperature controlled electronic equipment environment.

1.4. **Dimensions.** The antenna requires an approximately 1.5 m (5 ft) x 1.5 m (5 ft) area. A concrete or asphalt pad is desirable but not required. Depending on site obstructions, roof mounting or a tower may be required.

1.5. **Design Considerations.**

1.5.1. **Communications Requirements.** A custom 61 m (200 ft) power/data cable provided with the system is needed from the RSS antenna location to the indoor equipment location. The site network server and the user computer hosting FAS software require common user NIPRNet access.

1.5.2. **Power Requirements.** The RSS requires 120 VAC, 60 Hz, 5.4 A, or 240 VAC, 50/60 Hz, 2.7 A input power to the indoor equipment. The antenna is serviced by a custom 61 m (200 ft) power/data cable provided with the system. A power conditioner and UPS are also provided with the system. The requirement for emergency power is determined under AFI 32-1063.

1.5.3. **Special Features.** Site/facility security requires that only authorized personnel are granted physical access to antenna sites. Site/facility security requires that only authorized personnel with a need-to-know are granted physical access to computing facilities that house the RSS indoor processing equipment which includes COMSEC equipment. The computing facility should be locked and alarmed with features sufficient to meet unattended COMSEC storage requirements. A fire suppression system is needed for the indoor equipment with a local and remote fire activation and alarm capability.