RF Space Situational Awareness Services

RF Monitoring Offers a More Complete Picture



A growing array of threats to our space system has increased urgency on advancing a more complete Space Situational Awareness (SSA) picture. As more satellites are launched and activated, as adversaries develop new techniques to disrupt and disable US and allies space operations, the threats continue to grow.

Kratos' has been offering Radio Frequency (RF) monitoring services to government and commercial customers for years, focused on helping resolve interference issues among the satellites they operate. Collected through Kratos' unique, global network of sensors and ground facilities located around the world, that same RF data can also help operators understand more about the health, location, attribution, performance and other factors about satellites. Now, Kratos offers SSA services including RF Satellite Surveillance, Correlative/Predictive Analytics, Bandwidth Utilization, and RF Interference Mitigation. All services are offered by subscription or on demand.

Kratos' New RF SSA Services Are A Turnkey Operation

- L/S/C/X/Ku Band Coverage
- · Basic recurring reporting
- · Customized tasking, analysis and visualization
- Combination of profiling, geolocation and 3rd party data

Advanced technologies developed by and exclusive to Kratos have been integrated into all levels of this cutting-edge infrastructure, from custom algorithms employed in the sensor network, to industry-leading commercial applications used in the NOC for data monitoring, correlation and geolocation, to specially developed analytics that provide the real meaning behind the raw data.

Introducing Enhanced RF SSA Services:

RF Satellite Surveillance

Effectively Detect:

- Interference patterns
- Long term performance trends
- System or behavior vulnerabilities
- · Signal classification

Correlative/Predictive Analytics

- Determine causal relationships
- Machine learning for predicting events
- Statistics based tipping and cueing

Bandwidth Utilization

- Monitor efficiency of transponder bandwidth
- Determine bandwidth effectiveness
- · Detect and assess anomalies

RF Interference Mitigation

- · Real-time monitoring
- · Interference detection
- Geolocation
- Mitigation

Based on 24/7 Global Sensor Network

Kratos possesses the world's only global commercial RF network for delivering Spectral Services for SSA. This global network currently consists of 21 worldwide RF monitoring sites and sensors with more than 80 antennas. The sensor infrastructure uses state-of-the-art technology for high-speed, accurate signal measurement and enables advanced analytics for EMI mitigation and SSA insight

Advanced 24/7 Operations Center

The global network is supported by Kratos' 24/7 Network Operations Center (NOC) employing a dedicated workforce experienced in RF spectrum management, geolocation and data analysis. Supporting our government and commercial customers on a round-the-clock basis, the NOC is staffed with a highly skilled workforce that is trained to effectively access a wide range of databases, leverage business relationships and develop solution sets to address complex RF interference challenges.

Data Science & Algorithm Development

Kratos' advanced data analytics and AI tools process RF data for real-time SSA awareness, predictive insights, historical trending, and patterns of life. Fused and correlated with data from optical/radar/terrestrial and space-based sensors, it provides more timely, accurate, and complete SSA.

Global EMI Detection and Geolocation Infrastructure



Kratos' extensive global network consists of 21 worldwide RF monitoring sites, hosting more than 80 sensors and antennas and is specially tuned for high-speed, accurate RF signal collection and measurement.