

# Azalea Data & Insights Radio Frequency Mapping

Space powered high accuracy Radio Frequency Mapping,  
Geospatial Intelligence data products

## Overview

Azalea Radio Frequency Mapping Capability Data system detects and geolocates radio frequency transmissions from Space to identify & uncover hidden and illegal activity. This complementary data can be used to tip and cue other datasets to enhance intelligence capability, even when traditional geospatial intelligence (GEOINT) sources are compromised by weather, distance, or sea-state.

Satellite constellation capacity is tasked to perform collections in specific bands over critical user areas of interest. Our proprietary processing system then transforms the satellite collections into two accurate and easy to ingest products which combine to provide our multi-layered, geospatial intelligence and signal intelligence (GEOINT/SIGINT) combination to enable 'RF Mapping'.

### Radio Frequency Mapping Geospatial Intelligence (RFM GEO-LOCATE):

- Analytic ready - processed geospatial intelligence JavaScript Object Notation (JSON), providing:
  - Frequency
  - Time
  - Latitude and longitude
  - Earth-centred-Earth-fixed (ECEF) Coordinates of observed RF signals.

### Radio Frequency Mapping In-phase & Quadrature (RFM IQ):

- Raw RF data, I/Q File,
- Collection Configuration File (CSV),
- Metadata (CSV).

## Customer Types



INTELLIGENCE/  
DEFENSE



CIVIL

## Example Use Cases

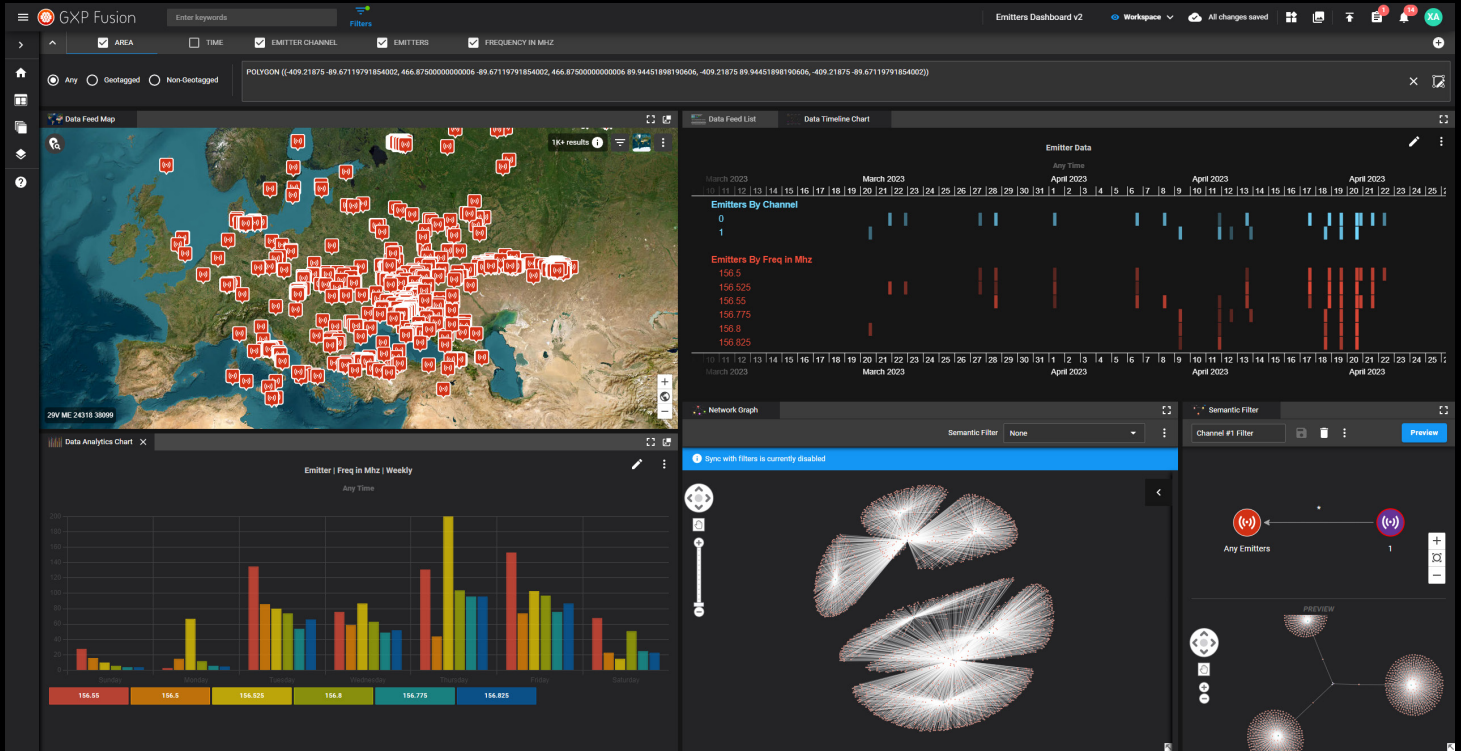
National Security (intelligence). Counter Terrorism. Anti-jamming. Border Security / Immigration. Sanctions Prosecution.

Illegal Commercial Fishing. Search & Rescue. Piracy. Coast Guard Monitoring & Smuggling / Exclusive Economic Zone Protection.

Services are provided as standard data as a service over key standard collection zones (DaaS & SCZ) or via bespoke, user taskable mission as a service.

Digital  
Intelligence

**BAE SYSTEMS**



BAE Systems GXP Fusion®'s dashboard with Azalea's Radio Frequency Mapping Data

<b>RF Frequencies &amp; Detections</b>	<ul style="list-style-type: none"> <li>VHF (155-165MHz)               <ul style="list-style-type: none"> <li>Handheld communications</li> <li>Mobile radar</li> </ul> </li> <li>X Band (8500-9500MHz)               <ul style="list-style-type: none"> <li>Maritime navigational radar</li> </ul> </li> <li>AIS (Available as concurrent collect with above)</li> </ul>
<b>Geolocation of RF Sources</b>	<ul style="list-style-type: none"> <li>Latitude, Longitude, ECEF Coordinates</li> <li>200 m to 3 km accuracy depending on conditions</li> <li>Capture metrics: Date/Time of event, TX frequency</li> </ul>
<b>Geolocation Technology</b>	<ul style="list-style-type: none"> <li>Multi satellite clusters flying in formation</li> <li>Proprietary multilateration algorithms</li> </ul>
<b>Pricing Options</b>	<p>Monthly or annual subscription based on delivery of a standard collection area, or bespoke mission available on request</p>

**BAE SYSTEMS**

Part of BAE Systems' Azalea Data & Insights

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