



# InstiMaps™ Automated Threat Detection & Near Real-Time Reporting System for Pipeline Patrol

**InstiMaps** is an end-to-end pipeline patrol threat detection and reporting system. InstiMaps uses advanced airborne sensors, real-time artificial intelligence (AI) and LTE communications to detect, identify and report imminent threats from aircraft patrolling geographically distributed critical assets in near real-time. Imagery and identified threats are delivered within minutes of detection, in formats that can be seamlessly integrated into customer asset management platforms.

InstiMaps is comprised of FAA compliant sensors, antennas, and a self-contained flight management system. The system is controlled by a tablet computer and operated by the patrol observer. Imagery is continuously acquired, processed, analyzed and recorded during flight. Imagery is also automatically displayed on the observer tablet in real-time and forwarded to the InstiMaps Cloud using 4G LTE. Threat imagery is published and delivered to authorized damage-prevention personnel within minutes.



**InstiMaps Sensors.** Airborne sensors include high resolution visible and thermal infrared cameras. When flown at 1500' AGL, the visible camera provides 3" resolution imagery of a 1,250' wide corridor over asset centerline. The infrared camera spots and reports fires within 250' of the corridor centerline.

**InstiMaps™ Publishing.** During flight, InstiMaps rapidly sends threat imagery and markers to authorized personnel across the enterprise, often within minutes. Encroachment Reports are published immediately after flight. Digital orthomosaic maps and other post-flight data products follow within 9-36 hours. These map-based data products provide a historical record of threats and conditions along the entire corridor that can be of value to damage prevention and other oversight functions.

## for more information:

**American Aerospace Technologies, Inc.**  
email: [contact@americanaerospace.com](mailto:contact@americanaerospace.com)

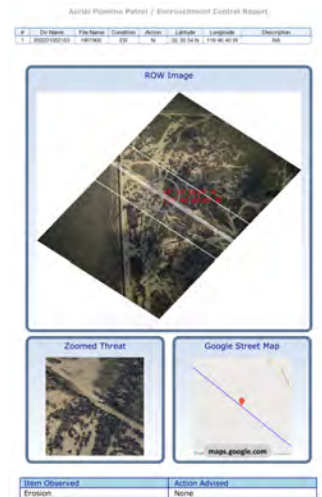


The InstiMaps Cloud supports company-wide operations, simultaneously publishing threats from multiple InstiMaps-equipped aircraft operating across the network.

**Threat Reports.** Threat reports combine high resolution aerial imagery, machine learning and observer input to rapidly deliver actionable data. Threats can be delivered to many 811 call systems or by AATI's web mapping app. Threat images include overlays with pipeline segment ID, pipeline shapefile ID, nearest mile marker, coordinates and threat level designated by a colored threat box or marker.

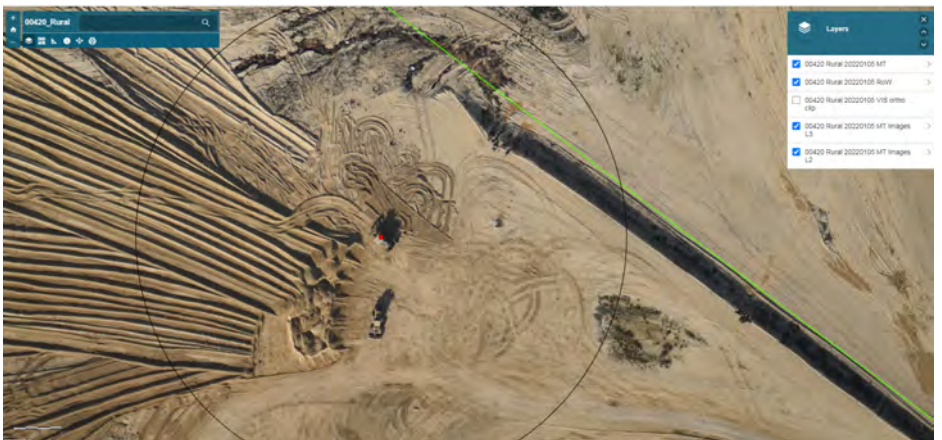
**Data Delivery.** InstiMaps delivers threat imagery, alerts and post-flight data products to many 811 Call System platforms, via AATI's Web Map Apps or to any Open Geospatial Consortium (OGC) compliant GIS application on PC and Mobile including ESRI's ArcGIS.

**Data Visualization.** Data can be ingested into customers' existing digital pipeline management systems. AATI also offers visualization tools to enhance analytical value and provide rapid access to data in the office and the field.



### Data Management and Storage.

Complete Right-of-Way and threat image layers remain accessible in the form of web compliant map layers for a period of one month, before being archived. Once archived, image layers are stored for a period of one year unless otherwise specified. Archived imagery is available within three days of request in the form of imagery-based map layers. All threat data points remain accessible for the life of the pipeline to allow for predictive analytics.



### About American Aerospace Technologies, Inc.

Founded in 2002, AATI is a leader in airborne sensing, intelligence and communications systems and services for critical infrastructure and disaster response. We deliver services with conventional aircraft, drones and medium altitude, long endurance unmanned aircraft.