



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 pipelines in near real-time. Imagery and identified threats are delivered within minutes of detection, formatted for seamless integration into customer asset management platforms.

InstiMaps includes FAA compliant sensors, antennas, and a self-contained flight management system. The system is controlled by a tablet computer and operated by the flight crew. Imagery is continuously acquired, processed, analyzed and recorded during flight. Imagery is also automatically displayed on the flight crew 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:

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

Encroachment Reports. Encroachment reports combine high resolution aerial imagery, machine learning and flight crew input to rapidly deliver actionable data. Threat images include overlays with pipeline identifier, nearest mile marker, coordinates and designated threat level.

Data Delivery. InstiMaps delivers threat imagery, alerts and post-flight data products to many811 Call System platforms, via AATI's Web Map Apps or to any Open Geospatial Consortium (OGC) complaint 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.

ID	Dr Name	File Name	Condition	Action	Latitude	Longitude	Description
1	00001001101	001000	ER	N	36.3034 N	103.4640 W	MT

ROW Image

Zoomed Threat

Google Street Map

Item Observed	Action Advised
Erosion	None

Why InstiMaps?

Incidents on gas and liquid pipelines result in significant costs such as fatalities, lost revenue and reputational impact. InstiMaps increases detection rates, speeds response, delivers post-flight orthomosaics of the entire patrol and provides an auditable record of conditions. All this at a minor incremental cost to existing patrol programs, thereby delivering substantial value to your business.



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.