Public Quarterly Report

Date of Report: 4th Quarterly Report- October 1, 2020
Contract Number: #693JK31910016POTA
Prepared for: DOT
Project Title: Develop Remote Sensing and Leak Detection Platform that can Deploy Multiple Sensor Types
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For quarterly period ending: September 30, 2020

1: Items Completed During this Quarterly Period:
Team Project Activities completed during this quarter.

Item #	*Task #*	*Activity/Deliverable*	*Title*
9	6	Data Analysis & Benchmarking Plan - update	Data Analysis and Benchmarking
16	3	Test Range Review	Test Range & Staging Protocols
15	2	Integration Report – for 2nd Campaign	Integration of Sensors and Algorithms with UAS
17	7	4th Quarterly Status Report	

2: Items Not Completed During this Quarterly Period:
Team Project Activities not completed this quarter

Item #	*Task #*	*Activity/Deliverable*	*Title*
13	6	Report on Campaign #1	Data Analysis and Benchmarking

3: Project Financial Tracking During this Quarterly Period:

Confidential

4: Project Technical Status –

Item #9 / Task 6 / Data Analysis & Benchmarking Plan – Update / Data Analysis & Benchmarking

Description: The program calls for automatic threat detects to be compared to independently collected ground truth data and reports from aerial patrol pilots. Recommended Practices for Threat Taxonomy, Targets, Staging and Scoring were approved June 10, 2020. AATI completed a Threat and Threat Level Taxonomy Poll initiated with voting PRCI members.

Status: AATI published the initial Informational Interface Control Document (ICD) that meets member requirements in order to share data across projects to maximize value and minimize flight software modifications. The same Recommended Practices will be used on the ROW-3-1, ROW-3-1-A and AATI's NASA SIO contract. We have confirmed that the pipeline operators will agree to use the same Recommended Practices. Meetings are ongoing with AATI and Geosyntec to a) develop RPs for gas leak and b) refine RPs for staged target design and deployment.

Item #16 / Task 3 / Test Range Review / Test Range & Staging Protocols

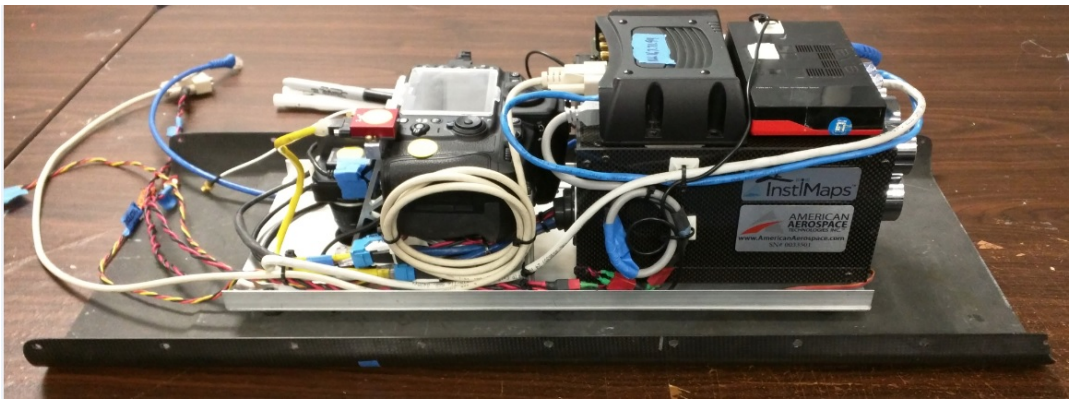
Description: Multiple PRCI members have offered to make their ROW corridors available for this program. Multiple factors have been considered in the selecting the location(s) for conducting these tests including, for example, population density, proximity to transportation corridors, towered airports, traffic patterns of ongoing aviation operations (helicopters, crop dusters, parachutists, balloonists and gliders, commercial & military aircraft, etc.). Site selection recommendations were made using a risk-based approach to identify the optimum location for the flight test program.

Status: The primary location for the conduct of the final tranche of flights is the San Joaquin Valley in California, with launch/landing operations at Button Willow, California. AATI's primary focus has been to plan a safe and secure mission while verifying commitments in light of the Novel Coronavirus (2019-nCoV / Covid-19) outbreak and the wildfires in California. AATI therefore is currently conducting the 1st tranche of flight tests at the Woodbine Municipal Airport in New Jersey. In addition, we plan to fly the second tranche of flight in Pendleton, OR in October, unless smoke from wildfires precludes safe flight operations there.

Item #15 / Task 2 / Integration Report – for 2nd Campaign / Data Curation & Analysis

Description: The current ROW-3-1 ATDS payload is being designed to operate on conventional patrol aircraft only. Under this scope, Task 2 will focus on reducing the size, weight and power of the ATDS payload and integrating it into a Long Endurance High Performance (LEHP) UAS. The team will follow a similar system engineering approach as was used under the ROW-3 program that reduced the payload size from 165 pounds to less than 15 pounds for deployment on the LEHP UAS for equipment detection.

Status: The InstiMaps Gen-3 payload for the 1st campaign successfully flew on the RS-20 UAS last spring during a check flight at our Woodbine Municipal Airport facility in New Jersey. AATI also flew a new Color Infrared sensor on the RS-20 for the 1st time. InstiMaps is currently being installed into the AiRanger (formerly known as Resolute Eagle) the week of September 21, 2020



InstiMaps Gen-2-AI-U (AATI Confidential)

Item #17 / Task 7 / 4th Quarterly Report / Submit 4th Quarterly Report

Status: this document presents the 4th Quarterly Report

5: Project Schedule –

Current Flight programs are underway with minimal COVID-19 impacts that have not been mitigated in advance. We continue to monitor the increasing cases of COVID-19 in Texas, Oregon, and California, as well a wildfire conditions in both California and Oregon.

Schedule
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