Autonomy Association International, Inc. Celebrates NASA DRF Milestone

AAI teams come together to celebrate DRF milestone, commemorating a momentous year and the 6 month anniversary of their historic NASA test flights in Arizona.

MOUNTAIN VIEW, CALIFORNIA, UNITED STATES, December 31, 2023 /EINPresswire.com/ -- Autonomy Association International Inc. (AAI), a public benefit corporation whose mission is to support individuals, businesses, and communities with cutting edge technology research and supporting open source software initiatives, today announced they had gathered members of their teams in Arizona, Silicon Valley and across the country to celebrate a momentous year, and commemorate the 6 month anniversary of their historic NASA Data Reasoning Fabric (DRF) test flights in Arizona.

Since being selected as the industry lead on the project, and executing their Space Act Agreement with NASA in 2022, the AAI and NASA teams met weekly, working toward the successful development and eventual AAI Data Reasoning Fabric flight test milestone. The teams worked for several years to develop the NASA and AAI use case evolutions, testing for years in simulation to evaluate a system that many at NASA believe will enable the future of true advanced air ecosystems, including the future of advanced mobility or 'flying cars'. These futuristic vehicles are being designed and certified for airworthiness, but the roads in the sky they require, and the complex communications and real time data requirements that must support these vehicles, must be realized and validated first.

Data Reasoning Fabric, or DRF, is a technology developed by teams at NASA Ames Research Center intended to level the playing field in aeronautics for businesses, and contributors like academia, by facilitating a trusted service discovery and exchange backbone for the benefit of future airspace ecosystems.

AAI and NASA DRF teams realized the vision to create an open aeronautical commercial and open source marketplace, a first in the world laying the ground work for next generation flight operations. Together the teams were able to confirm assumptions about using open source data, utilization of multiple data sources in-flight to initiate actions like re-routing, and to realize better outcomes and increased safety.

The flight test observed by NASA and performed by the Autonomy Association team in Arizona, was a first of its kind field test of the NASA core and represents a 1 of 1 in the world. Not only

was AAI the first to take the platform out of simulation and do a real world flight test of the AAI DRF commercial platform in beta, but the project itself was unlike others in the speed at which it was accomplished.

The field test in Arizona was a great success for both the NASA and Autonomy Association International teams. With cooperation from Universities, student veteran interns and global stakeholders like Verizon, MongoDB and Seagate, the first commercial implementation of NASA's DRF was flown across stakeholder cities in multiple counties and tribal nations.

The AAI team perfected services from the NASA DRF design and performed the world's first 4 airborne missions flown using DRF in the National Airspace. AAI developed a flight test comprised of 4 separate evolutions flown across complex airspace with the cooperation of tribal leaders, and mayors from more than 22 cities across 3 counties.

These AAI real world flight tests with NASA using DRF included medical delivery from an urban to rural environment with an on demand re-tasking from the rural back to an urban environment - a highly complex operation. The flight test also included re-tasking a contracted flight as first responder, which included multi-modal life saving multi-party teaming in an urban environment bordering military restricted airspace. The final evolution was a passenger flight using the DRF, flying from an airport on the West side of Phoenix to Scottsdale on the Eastern side of the metro area. The result was a first in the world for aviation by utilizing NASA technology and services developed by the AAI team and re-tasking airborne aircraft in real-time through machine-to-machine communication.

Autonomy Association International Inc. (AAI), founded by leading aeronautics technologists and change makers, is a public benefit corporation founded in 2021. In early 2022, after providing a complex proposal which included key use-cases used to establish a standards based approach and identify means of performance issues, the AAI team won the confidence of NASA to embark on their historic partnership when a NASA selection committee selected AAI from a group of organizations in regions across the United States, including Austin, Texas and upstate New York.

As part of this shared mission, AAI and NASA teams jointly worked to develop the software and ecosystem. Uniquely, AAI gathered a team of local stakeholders and global powerhouses to support the Arizona field test. This consortium of thought leaders and technology experts, along with the deep technical experience of the Autonomy Association team, enabled AAI and NASA to fly the first mission ready version of DRF.

AAI delivered to the NASA research team solutions including a working model to solve non repudiation, which establishes key trust requirements, in aeronautics using DRF. By providing this working model, AAI built a roadmap for complex airspace operations outcomes needed for new research efforts, community acceptance, and industry stability and growth for next generation aviation efforts.

According to the AAI Industry Principal Investigator on the NASA DRF project, the “Right Data, Right Time, Right Place” model will represent the future of successful aeronautics operations.

“The success of this important project was made possible by our NASA and AAI teams coming together to invest years of thoughtful planning and collaboration between our two organizations. AAI and our cohort of partners are collectively proud to have been given this trust by NASA and selected to pave the way for commercializing and scaling DRF to enable the future of flight.”

According to the company, they will begin licensing their commercial DRF As-A-Service Platform (DRFaaS©) for aeronautics in January 2024.

Media Contact
Autonomy Association International, Inc.
email us here