

NASA SBIR/STTR Technologies

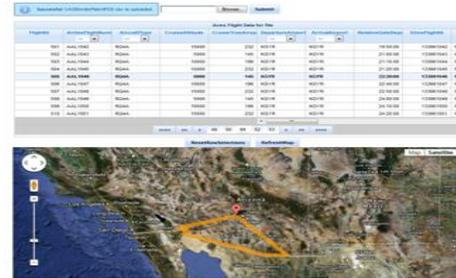
A5.01-8555 - UAS Demand Generation and Airspace Performance Impact Prediction



PI: Frederick Wieland
Intelligent Automation, Inc. - Rockville, MD

Identification and Significance of Innovation

The key innovation of this effort is the development of future traffic demand for Uninhabited Aerial Systems (UAS) given the various missions they intend to fly, and thereafter populating a data warehouse with these projected flights that can be marketed to the aviation community. We propose developing one flight demand set for each of twenty-five future years from the 2015 through 2040, incorporating nineteen of the proposed UAS missions, allowing analysts to access the data through a web-based data warehousing system.



Estimated TRL at beginning and end of contract: (Begin: 2 End: 4)

Technical Objectives and Work Plan

Conduct the analysis by:

- Categorizing UAS missions with several criteria (socioeconomic or not, impact on NAS, etc.)
- Model socioeconomic missions through upgrades to the TSAM software, non-socioeconomic missions through activity-based modeling + SMEs
- Store the resulting flight data sets in a data warehouse
- Demonstrate value by running several analyses on the resulting datasets

NASA Applications

NASA: The NASA UAS program needs credible sources of future UAS demand to run scenarios in fast-time and real-time simulation systems.

Non-NASA Applications

Non-NASA: The aviation community, in determining the impact of UAS worldwide, also requires a credible source of UAS demand for scenario development and analysis.

Firm Contacts

Frederick Wieland
Intelligent Automation, Inc.
15400 Calhoun Drive, Suite 400
Rockville, MD, 20855-2737
PHONE: (301) 294-5200
FAX: (301) 294-5201

NON-PROPRIETARY DATA