

Transition

An example of Air Force supported SBIR/STTR technology that has been transitioned into an Air Force or other DoD system or subsystem or used by Air Force test ranges and facilities or maintenance depots.

SBIR Topic Number:

AF02-307

SBIR Title:

Advanced Airspace Modeling, Characterization, and Planning

Contract Number:

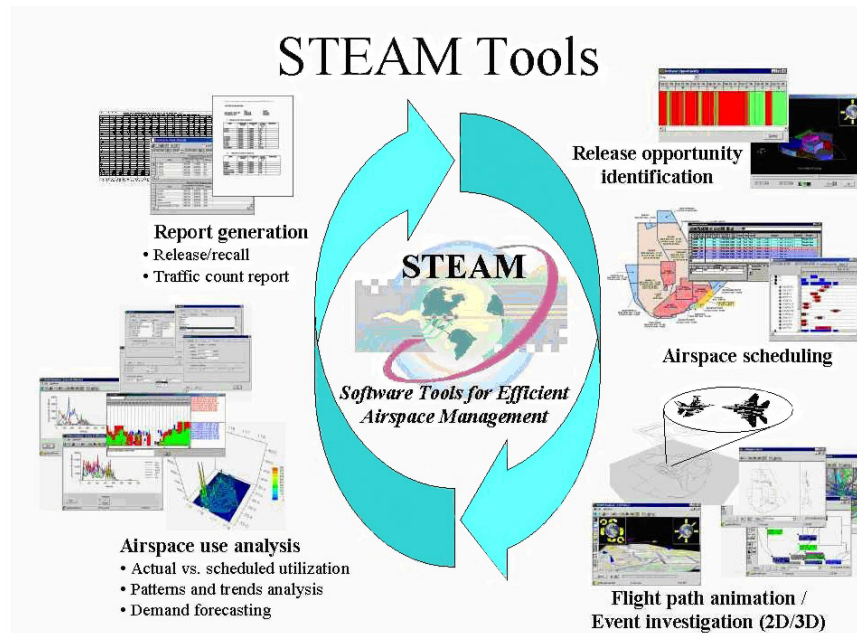
F04611-03-C-0031

SBIR Company Name:

Knowledge Based Systems, Inc.
College Station, TX

Technical Project Office:

Air Force Flight Test Center, Edwards AFB, CA



Software Tool Enhances Airspace Management

- The Air Force has a requirement for airspace managers and policy makers to review, analyze, and assess the utilization of special use airspace to be able to better address airspace encroachment issues
- Under this SBIR project, Knowledge Based Systems, Inc. (KBSI) developed the Software Tool for Efficient Airspace Management (STEAM), a versatile and powerful tool that can be used for airspace analysis and management
- By being able to analyze actual airspace use, DoD policy makers and managers can better quantify, document, and justify such utilization
- The STEAM technology is currently being used at the Air Force Flight Test Center R-2508 Airspace Complex at Edwards AFB applications, and the sustainment of these products

Commercialization Pilot Program Series

08391

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Air Force Requirement

The Air Force has a requirement for airspace managers and policy makers to review, analyze, and assess the utilization of special use airspace over time and to design strategies for optimal long-term utilization.

Support requirements include accurate comparison and quantification of difference between scheduled and actual airspace utilization as well as two-dimensional (2-D) and three-dimensional (3-D) simulation of aircraft flight paths.

SBIR Technology

Under this SBIR project, Knowledge Based Systems, Inc. (KBSI) developed the Software Tools for Efficient Airspace Management (STEAM), a versatile and powerful tool set of technologies that can be used for airspace analysis and management.

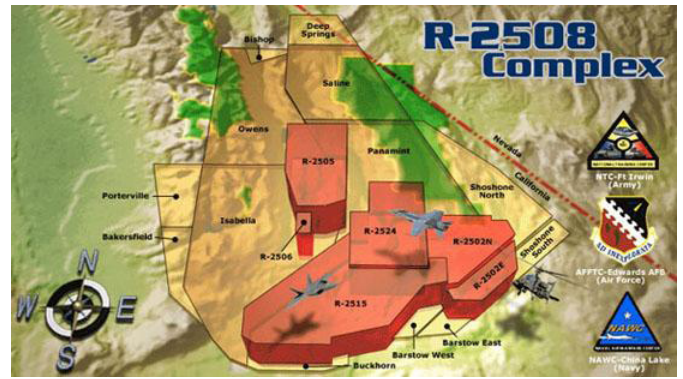
The STEAM technology consists of a suite of several interactive Microsoft Windows® based client applications and an Oracle® based back-end database application. This suite is networked to receive air traffic data from a near real-time feed, so that utilization information is constantly updated, and scheduling data and flight strips can be distributed quickly and accurately.

Transition Impact

STEAM will make an impact in the scheduling efficiencies that are increasingly important as limitations of actual airspace occur. The anticipated benefits of STEAM include:

- Efficient airspace management
- Knowledge-based policy making on special use airspace
- Improved utilization of special use airspace
- Facilitation of aircraft mishap investigations
- Identification and visualization of inherent utilization patterns
- Ability to make a wide range of queries on radar data

The STEAM technology is being used at the Air Force Flight Test Center (AFFTC) R-2508 Airspace Complex at Edwards AFB. The R-2508 airspace scheduling supports every major test program flying in the R-2508 airspace. Improved scheduling capability is increasing the AFFTC's ability to utilize and schedule the limited airspace, resulting in continually improved usage and therefore allowing maximized use. By being able to display actual airspace use, AFFTC can better quantify, document, and justify such utilization.



Company Impact

This SBIR project enabled KBSI to further its corporate expertise in the development of user-defined software tools and applications. As a result of the technical results achieved, the AFFTC has awarded KBSI a Phase III contract which will facilitate further technology transition and commercialization efforts to other U.S. government ranges with similar needs.

Founded in 1988, KBSI is a dynamic analysis, modeling and systems/software development and integration company specializing in lean business redesign and improvements. KBSI provides industry-leading software and customized solutions in the areas of decision support, enterprise metrics, business intelligence and data analysis, asset management solutions, commercial off-the-shelf process modeling software, simulation, training, and facilitation.



SBIR/STTR

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