# **CONTRACT NUMBER:** 15-096-RQ-01ITA

### **TECHNOLOGY NAME:**

Advanced Framework for Simulation, Integration and Modeling software (AFSIM)

## TECHNICAL PROJECT OFFICE:

Air Force Research Laboratory Aerospace Systems Directorate Wright-Patterson AFB, OH 45433

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March 2017

### INFORMATION TRANSFER

Agreement Enables AFRL Software Sharing with Industry

**WRIGHT-PATTERSON AIR FORCE BASE, OHIO** – The Air Force Research Laboratory Aerospace Systems Directorate used Information Transfer Agreements to transfer its Advanced Framework for Simulation, Integration and Modeling software, a robust simulation and modeling tool, to 80 industry partners for development and evaluation.

An ITA is a relatively new type of technology transfer agreement used by the Air Force to share government developed software, such as executable files or source codes that are related to design or manufacturing activities with external, non-DoD partners. These partners can include state and local governments, academia and industry, depending on the distribution statement applied to the technology being transferred. For AFSIM, the software can only be shared with industry partners due to its distribution limitations.

AFSIM was created to rapidly represent advanced technologies and technology concepts for both government and industry developments that were often difficult or impossible to



The Air Force Research Aerospace Systems Directorate used Information Transfer Agreements to transfer its Advanced Framework for Simulation, Integration and Modeling software. AFSIM is a powerful, flexible software simulation tool for use in research and development (R&D), operations analysis, and experimentation communities. As simulated above, the software covers domains from sub-surface to space and can be used to assess how military systems function throughout the course of a mission.(Courtesy photo)

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accurately represent with existing legacy tools. It is a powerful, flexible software simulation tool for use in research and development (R&D), operations analysis, and experimentation communities.

The software covers domains from sub-surface to space and can be used to assess how military systems function throughout the course of a mission. Users can manipulate the abilities and interactions of the participants as they travel through space and time through constructive, virtual and mixed constructive/virtual engineering to mission-level analytic simulations.

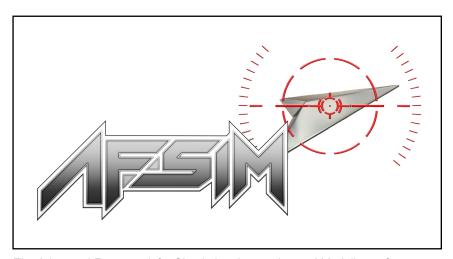
"The ability for industry to utilize a government tool, such as AFSIM for its internal R&D efforts is a game-changer," said Dave Panson, modeling and simulation lead for the Air Force Strategic Developmental Planning and Experimentation office.

Without an ITA, a contract would need to be established in order for an industry partner to utilize government owned software tools. At the end of the contract, the software would either be returned to the government or transitioned to another contract. For industry users, this option makes it challenging to both maintain and remain proficient in tools that are non-accessible.

More importantly, transitioning advanced concept models to a contract may result in the use of legacy tools built on older programming languages. In addition, it is becoming increasingly difficult to find individuals that possess experience with using older programming languages.

However, these agreements allow industry to have complete access to the software, thus saving time, money and resources. For example, the AFSIM ITA helped create a common framework where all collaborators who are performing engineering to mission-level modeling and simulation for R&D could engage.

This common framework assists both Air Force and collaborators with reductions in duplications during model development, minimizes technology integration on cooperative efforts, and provides the ability to perform comparisons and software improvements.



The Advanced Framework for Simulation, Integration and Modeling software was created to rapidly represent advanced technologies and technology concepts for both government and industry developments that were often difficult or impossible to accurately represent with existing legacy tools. AFSIM has been shared with 80 industry partners through an Information Transfer Agreement by the Air Force Research Laboratory Aerospace Systems Directorate. (Courtesy photo)

"Before AFSIM, we lacked a common simulation framework which could be widely distributed with minimal barriers for adoption, leading to duplication of effort on many projects," said Brian Birkmire, AFSIM model manager.

The Air Force is committed to AFSIM and plans to fully fund its continued development and sustainment. As AFSIM is adopted over time, the return on investment for this technology will be realized in time and money savings across the entire Department of Defense.

For additional information about ITAs, technology transfer or how to partner with the Air Force, please contact the Air Force Technology Transfer Program Office at 937-904-9830, af.techtransfer@us.af.mil, or visit the T2 website at www.wpafb.af.mil/t2.

Linking technology with the mission and marketplace.