

# **AFCEC Integrated Fuels Team Conducts Operational Tests of DOD Enterprise Sustainment Management System (ESMS) at Moody AFB, Georgia**

**Submitted by AFCEC/COA**

**AFCEC Tyndall AFB, Florida** – Late last year, AFCEC program managers worked with the U.S. Army Corps Engineers, Engineering Research Development Center, Construction Engineering Research Laboratory, Center for Technical Excellence to conduct software operational testing and evaluation of the Department of Defense Enterprise Sustainment Management System (ESMS) Utilities Fuels Domain at Moody AFB, Georgia. Moody AFB is the Air Force's test base for this new asset management software. The goals of this effort is to test and streamline data collection, management and sustainment of asset inventories to reduce the level of effort required at the installation level.

The AFCEC Integrated Fuels Team led by the Operations Directorate's Joe Worrell, Air Force program manager for ESMS Utilities; Dr. Julius Morehead, Air Force program manager for ESMS Utilities-Fuels Domain; Tom Sofka, Air Force Utilities GIS program manager; and the Environmental Directorate's Julia Mireles, Air Force program manager for the Air Force Storage Tank Accounting and Reporting System (STAR) program. The team collaborated in their efforts to streamline the collection of Air Force Fuel Tank inventory information to support the development of the new DOD ESMS application.

To prepare for this test, Mireles hosted a key meeting among Air Force fuels stakeholders August 2-5, 2021 in San Antonio to launch discussions initiated by AFCEC's Jim Works, Air Force Fuels Infrastructure subject matter expert.

"This was the first time to organize an in-person round table workshop to discuss many issues involving Air Force fuels assets, data and software management systems, design standards and criteria, asset management, environmental compliance requirements, fuels project execution and funding, in addition to developing plans to enhance the civil engineering Liquid Fuels Maintenance career field and manpower," Works said.

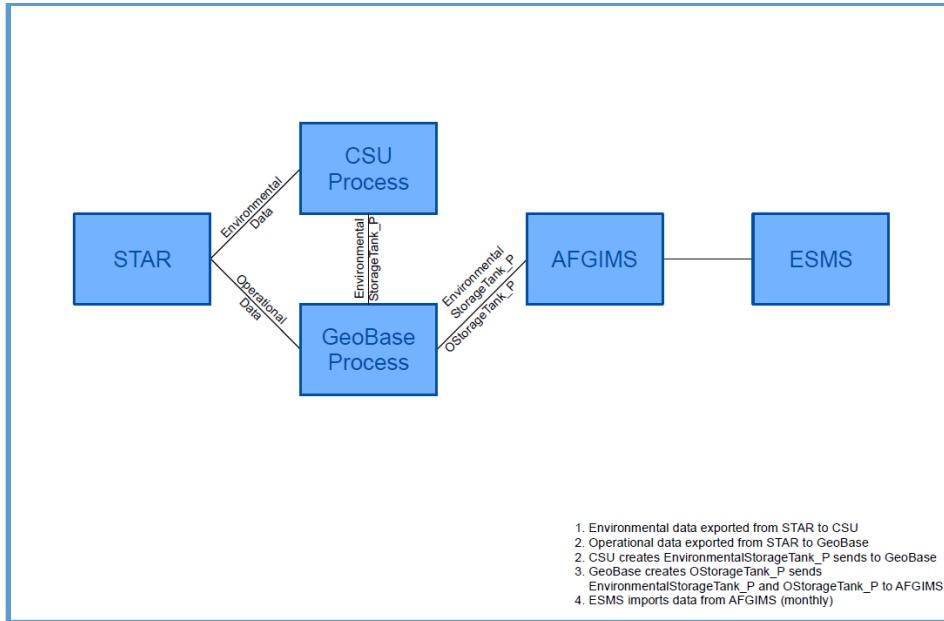
The workshop included many representatives, some participating virtually, from the Operations Directorate, Environmental Directorate and others supporting the round table.



## **AFCEC Fuels Roundtable Meeting 2-5 Aug 21 in JBSA Sets Stage for ESMS Field Testing at Moody AFB**

Since 2013, AFMAN 32-1067 requires the use of STAR for environmental compliance reporting. This workshop generated an opportunity to explore the use of existing AF fuel tank inventories in STAR as the source of data source to create an installation's fuel tank geospatial map for integration into the ESMS Utilities-Fuels Domain. STAR demonstrations were provided by the support contractor, Mr. Drew Bingham, Peraton. Moody AFB was selected as the AF test location based on its enduring BCE leadership support, mature asset management programs, and its utility systems and networks being AF owned and operated. Lt Col Peeter Pleaketamm, 23 CES/CC and Mr. John Eunice, 23CES/CD provided superb support for the AFCEC-CERL ESMS test team.

Geospatial data has emerged as the common interface between these applications. The 23 CES Geographical Information Officer, Mr. Lee Adams and Ms. Kristen Varney, GIS Analyst with the support of Mr. George O'Neill, Colorado State University-CEMML, were very instrumental in integrating STAR tank data into their Geobase maps. See Fig 1. The map data was then brought into the ESMS Utilities-Fuels Domain application to visualize STAR data integration. This demonstration proved the viability of using Geobase data as an authoritative data source for the ESMS. STAR workflows and assessment data supports the overarching requirement needed for effective asset management of fuel/POL tanks.



**Fig 1. Mr. Lee Adams, 23 CES Proposed Fuel Storage Tank Data Workflow**

The ESMS Operational Testing and Evaluation consisted of table-top discussions and field verification of select fuel tank types (i.e., emergency generator with day tank and POL bulk storage containers). The Team accompanied by Moody personnel observed the tank inspection process as it was conducted by the Power Production personnel in real-time recording of the assessment in STAR via an iPad mobile application. Data from this inspection supported updates to the STAR database to interface with ESMS.



**Mr. Bob Rucinski and Mr. Tim Chesnut, AFIT Video Crew Records Fuel Tank Inspection by SSgt Wilson 23 CES**



### **Mr. Bill Cortes, 23 CES, Provides Comprehensive Tour of Moody AFB Fuels Storage and Distribution Systems**

These field tests provide a viable path forward for the development of the other utility domains to include power, water, storm water, gas, and thermal (steam and chilled water) systems as individual domains under the ESMS architecture. Air Force Institute of Technology (AFIT) supported on-site efforts by collecting video footage of LFM tank inspections and interviews featuring Mr. Joe Worrell, AFCEC/COAU and Mr. Clint Wilson of CERL. AFIT is teamed with AFCEC to continue assistance to develop future SMS training courses to support this new asset management software.

The AFCEC Integrated Fuels Team continues to support the CERL development of ESMS through weekly "Fuels Tag Up" team meetings facilitated by Dr. Morehead to discuss lessons from the Moody tests and to develop methods to bridge gaps in the data for seamless integrating of existing systems and data to the extent practicable to simply fuels systems asset management. Additional testing of the ESMS application is planned later in FY 22 in continued partnership with the 23 CES at Moody AFB.