

Electronic Systems Group team sustains depot maintenance IT systems

by Ron Scharven
AFMFC Public Affairs

The mission of the 754th Electronic Systems Group's Production and Repair Maintenance Section at Wright-Patterson AFB is to sustain depot maintenance information technology systems.

This multifaceted mission requires the organization to evolve existing IT depot maintenance support systems and enable the transition to the future expeditionary combat support system.

Concurrently, the section ensures the depot information technology approach is consistent with the air logistics centers' business strategy to increase warfighter capability and lower life-cycle ownership cost.

Mike Duron, team lead for the

depot maintenance legacy systems describes the sustainment environment best.

"We don't have the luxury of stopping depot repair activities to update the support software," he said. "These updates, many of which are required due to unsupported software, can't be disruptive to an ALC's operations tempo. The January 2007 depot maintenance software release was a very good example of the software sustainment mission challenge."

"We in the sustainment business are continuously searching for improved IT approaches to managing and distributing depot data," said Perry French, team lead for the depot maintenance systems integration high performance team. "There aren't any dull moments."

The January DMSI software

release was extremely challenging, according to the DMSI team. Team members had carefully planned the release, and after testing each of the components to be deployed, they said they uploaded the new software version and held their breath.

"Every release is a nail biting affair," said Lance Ray, Logtec contract support engineer. "We make every effort to reduce the risk-to-mission during deployment, but can't eliminate it entirely, and DMSI release 4.0 was no exception."

Within three weeks, what appeared to be a minor printer problem soon led to unacceptable depot work stoppages. Initial efforts to resolve the printer problem were ineffective. As the impact of the problem continued to spiral upward, the DMSI team engaged all

available resources. This included IT specialists at the ALCs, Headquarters Air Force Materiel Command Logistics and Sustainment and the Defense Information Systems Agency experts.

Within 24 hours, the team had exhausted the obvious and then started looking for the proverbial "ghost in the machine." Within 72 hours the team discovered a default commercial setting on a server that proved inadequate for use at the ALCs.

"This team's success of discovering the fault quickly is an outstanding example of what an empowered team and effective communication can do," said Keith James, chief, production and repair maintenance section here. "It's a success story we repeat over and over with each release."

AFRL initiates technology transfer of engine data mining software

by René B. Edmondson
AFRL/ML Directorate

A software package has been acquired as a result of collaboration between the Air Force Research Laboratory and data management company ISTL Inc., which will help manage inspection data.

The Oklahoma City Air Logistics Center at Tinker Air Force Base, Okla., purchased the intelligent agent architecture software to obtain the capability to develop database search tools and reports for Eddy Current Inspection System data.

"The IAA is a component of ISTL's mission to serve the warfighter with reliable and cost effective turbine engine maintenance," said Jeff Heyob, president of ISTL Inc.

Engineers at OC-ALC will now have the capability to develop database search tools and reports from the ever increasing amount of Eddy Current Inspection System data that is collected daily. Before this purchase, the number of tools and reports were limited to those developed under small business innovation research contracts, meaning the development of new tools would be dependent on additional contracts. The purchase of the IAA license will allow engineers at OC-ALC to develop tools and reports to evaluate inspection times, test restarts and failures, probe performance and eddy current machine use. This will help with the overall inspection and maintenance of turbine engines on Air Force aircraft.

ISTL Inc. produced a data mining system that enables Air Force engineers, researchers and maintenance crews to search through aircraft turbine engine inspection data efficiently and perform automated analysis on that data. IAA was originally developed for use with data collected from the ECIS under an effort with

the AFRL Materials and Manufacturing Directorate's Manufacturing Technology Division. This ManTech program was a coordinated effort between the Engine Rotor Life Extension Initiative and the SBIR program.

As part of the ERLE initiative, ISTL Inc. installed hardware and software to collect engine inspection data from the eddy current inspection systems and to store it in a database. This inspection database is the repository for all inspection data, including part numbers, probe information, inspection time and linkage to the raw data for coordinate and eddy current signals.

IAA, a fully developed and demonstrated search capability, enables users to search ECIS data, being stored at a rate of hundreds of gigabytes per year, and generate electronic reports within minutes. It allows the integration of all data sources so users can search for trends ranging from the engine inspection processes to the engine's remaining life. They can receive electronic reports within minutes, rather than sorting through hard copies of reports to find the requested information. IAA saves time and allows engineers to build specifically tailored reports on the inspections of disks and engine components.

ISTL Inc. applied this software to the database system in the eddy current inspection areas at OC-ALC.

"ManTech's purpose was to provide OC-ALC with a new capability," said Howard Sizek, program manager.

Now, several years after the development of IAA, OC-ALC decided to purchase a license and internally develop their own tools.

"This step marks another successful cooperation between AFRL's Manufacturing Technology Division, OC-ALC and a small business," he said.

Command News

Interoperability demo binds coalition forces for common warfighter value

by Charles Paone
Electronic Systems Center Public Affairs

HANSCOM AIR FORCE BASE, Mass. (AFMFCNS) — When U.S. Air Force Lt. Col. Curt Harvey was deployed to the air operations center in Southwest Asia, he said he was struck by the challenge of working and sharing data with various coalition-nation partners.

Now, as the combined forces air component commander for this year's coalition warrior interoperability demonstration, he said he's been encouraged by the participation of so many of those allied nations.

"Everyone here is committed to figuring out how to work together more efficiently," he said. "That's really important because when we have that ability it makes us all exponentially better."

CWID is an annual event sponsored by the chairman of the joint chiefs of staff and directed by U.S. Joint Forces Command. The event features what are known as interoperability trials in which operators assess technologies at various stages of development to determine their potential for meeting critical warfighting needs.

This year, 23 nations are participating, creating a significant opportunity for international operators to jointly evaluate technology solutions and to seek out innovative ways to work cooperatively during contingency and wartime operations.

Hanscom AFB, where the Air Force's Electronic Systems Center is headquartered, is once again serving as the sole Air Force site — and one of 17 participating sites worldwide — for the demonstration, which began June 11 and ran through Thursday.

The base's command, control, communications, computer, intelligence, surveillance and reconnaissance enterprise integration facility is serving as a small-scale combined air operations center and is buzzing with a variety of activity each day.

"We're running about three times the number of interoperability trials we did last year, and we've got about 50 people on the floor working," said Hanscom's CWID site manager, Capt. Jesse Jaramillo.

See Demo, Page 12A

Tired of getting your paper
the old fashioned way?

Now you can
access the

Skywrighter

on the Web in
a downloadable
PDF format.

www.skywrighter.com



John E. Mitakides, DDS

Specialized facilities for TMJ
and head pain diagnosis

Call today to make your appointment!

427-3131

2141 N. Fairfield Road
Beavercreek, OH 45431

John
Mitakides, DDS
GENERAL DENTISTRY

- The latest technology for quick, comfortable dentistry
- Beautiful, affordable restorations, including crown and bridge, and dentures
- Financing available—12 month payment plans for major procedures
- www.mitakides.com

Emergencies Welcome
Most Major Dental Insurance Accepted