FuelsManager® DEFENSE

NAS Fallon - A Top Gun Solution

Automated Fuels Management System – Naval Air Station Fallon, Nevada, U.S.A.

Naval Air Station Fallon

NAS Fallon serves as the Navy's premier tactical air warfare training center and is an ideal location for naval aviators to hone their war-fighting skills. NAS Fallon is known throughout the Navy as the Top Gun training school and the only facility worldwide where an entire carrier air wing is able to integrate every element into a realistic battle scenario. Using an array of air-to-ground ordnance and sophisticated electronic weaponry, Navy pilots conduct real-world training missions over the four bombing ranges. The training facilities are so valuable, aircraft, pilots and ground crew assigned to all aircraft carriers come to NAS Fallon for an intensive, month-long air combat training detachment prior to deploying around the globe. Fueling all of those thirsty aircraft is a big job and the responsibility of the NAS Fallon Fuels Division.

Fueling the Top Guns

The NAS Fallon Fuels Division is one of the busiest military fueling operations. NAS Fallon personnel manage and issue over 30 million gallons of aviation fuel (JP-8) to refuel aircraft for approximately 35,000 sorties a year. To do this, the Fuels Division has a mobile fleet of eight 8,000-gallon tractor trailer refuelers, a 2,000-gallon refueler/defueler, nine aircraft direct fueling lanes (hot pits), a multi-product ground fuel delivery truck, a fully automated/unmanned military gas station and the capacity to store three million gallons of JP-8 and 50,000 gallons of ground products. The Fuels Division is responsible for performing scheduled maintenance on each piece of mobile equipment and fixed fuel system at the base.

The Fuels Division handles as many as 200 aircraft fueling requests per day during peak operations, so maintaining inventory control, reconciling all fuel movements, receipts and issues, can be critical to success. Fueling transactions, which can total over $60 million annually, need to be properly documented, processed and billed correctly to the customer.

NAS Fallon Fuel Depot

NAS Fallon and Varec
...stepping forward for the DoD fuels community

The Devil is in the Details

NAS Fallon is the only location in the world that Navy pilots and ground crew can receive the critical, realistic training needed to ensure they are fully capable of successfully executing combat missions anywhere in the world.

The NAS Fallon Fuels Division performs a combined total of over 50,000 fuel receipt and issue movements annually to meet mission demands. Without an easy-to-use, comprehensive fuels management software, the day-to-day management of this workload can easily become an operational nightmare.

Each request needs to be logged into the computer when received, so responsiveness and ease of data entry to any fuels management software program are essential to an efficient, safe fuel handling operation.

On a day-to-day basis, NAS Fallon Fuels Division needs to:

· Maintain positive inventory control of all grades of fuel to assist with the forecast of all fuel requirements.

· Optimize the use of fueling personnel and equipment to schedule on-time re-supply.

· Track fueling requests within acceptable response times. Understanding which requests have been completed, which are in progress and which are still remaining to be fulfilled helps improve operations and meet customer demands.

· Monitor fueling equipment serviceability and product quality to ensure all equipment used is operating safely and that all of the fuel issued meets military specifications.

· Perform inventory reconciliation and fuels accounting, document and verify all fuel movements and ensure the customer is billed in an accurate and timely fashion.

NAS Fallon is one of the Navy's most important air stations. The Navy's world famous Top Gun flying school is stationed here. Completing the Top Gun training is akin to a Navy pilot earning a PhD in flying.

Next Generation Fuels Management for BSM-Energy

Varec, Inc. is contracted by the U.S. Defense Energy Support Center (DESC), beginning in 1995, to employ the latest technologies to provide an automated information system for all parties involved in the U.S. Department of Defense (DoD) Energy program. This included migrating the Fuels Automated Management System (FAMS) and service related features with the development of the Fuels Automated System (FAS), now known as BSM-Energy. The currently deployed BSM-Energy (BSM-E) Base Level Support Application (BLSA) software consists of FuelsManager® Inventory Management (v4.3 SP6) and FuelsManager® Fuels Control Center (FCC v5.2, Build 1027 SP1) components. This was the deployed system operated at NAS Fallon until recently upgraded by Varec to the latest BLSA version – FuelsManager Defense (v6.0).

FuelsManager Defense (v6.0) is the next generation BLSA software solution, currently undergoing Beta testing by the U.S. DoD. The NAS Fallon Fuels Division was selected as one of three Navy FuelsManager Defense field test locations and began using the software in March 2005. NAS Fallon was an ideal choice for the field test because of its heavy fueling workload, as well as its numerous and varied aircraft fueling requirements.

As a fully developed, Commercial-off-the-Shelf (COTS) product, FuelsManager Defense contains numerous additional features, while retaining all the benefits of the currently deployed system. FuelsManager Defense is integrated with the Microsoft® Windows® 2000, XP and 2003 Server operating systems. The application consists of client/server and web-based applications that employ the latest technologies to improve data integrity and eliminate the data corruption problems experienced with the previous system.

The day-to-day fuel storage, handling operations and maintenance is outsourced to a commercial company, LB&B Associates, Inc., under the oversight of the NAS Fallon Fuels Director and staff.

Seamlesss Upgrade of Existing Systems

NAS Fallon Fuels Division personnel and members of LB&B Associates, Inc. worked closely with the on-site Varec deployment team to upgrade their existing system. To streamline this process, Varec developed a standard utility that was tested at the base. The utility allows all FCC (version 5.2, Build 1027) data to be migrated to the new Microsoft SQL Server database, as well as installing all DoD standard equipment types and quality control tests for use in a future enterprise wide system.

Since installation, NAS Fallon Fuels Division has played a major role in testing FuelsManager Defense and recommending enhancements to the program. The day-to-day expertise and vision of NAS Fallon's fuels accountant and dispatcher were key factors in helping determine enhancements and "fixes" needed to make FuelsManager Defense meet their everyday operational needs. Their efforts, coupled with the "Lets make it happen" attitude of the Varec Software Development team, produced outstanding results. Enhancements

were identified, cataloged and assigned to Varec software engineers for resolution during the testing process. The Varec software engineers based in Atlanta, Georgia quickly resolved many of the items and uploaded them into the FuelsManager program already installed at NAS Fallon via the internet before the start-up team departed the base.

The base personnel now operate a multi-faceted application that integrates real-time fuel inventory reports, tank liquid levels, equipment status, fuel quality test results and customer fuel requests. FuelsManager Defense also handles all customer billing data and is the authorized data source for DoD interfund billing.

The old adage that "the job isn't done until the paperwork is completed", applies at NAS Fallon. It is critical to the customer that transactions are correctly documented and electronically billed at the end of each period.

FuelsManager Defense not only provides management of bulk fuel inventories, it also provides a software solution for managing and documenting fuel transactions, flight-line dispatch, data capture, personnel, training, fuel quality control and equipment maintenance.

Operating on the Base Local Area Network (LAN), FuelsManager is able to export all transaction data to a single electronic file. Base personnel can then manually upload the file to the FES web server via a standard internet browser.

FuelsManager ®
DEFENSE

FuelsManager® DEFENSE

Gold Disk Security Standard

As security concerns increased, it was a major issue that any new BLSA support "strong password" features and be compatible with Windows Service Pack 2. The Defense Information Systems Agency (DISA) Field Service Office (FSO) defined the Gold Disk standard for securing the Microsoft Windows platform and Windows applications. As part of the configuration management plan for FuelsManager Defense, DESC directed Varec to comply with the Gold Disk standards and current testing has confirmed that FuelsManager Defense operates without error in the Gold Disk environment* for the BLSA.

FuelsManager Defense provides easy control of all security information, including users, groups and associated permissions, using FIPS compliant algorithms for data encryption. In addition, all data is stored in a Microsoft SQL Server that supports the existing U.S. government certification for C2 level installations in sensitive environments.

Testing is still in progress and Varec is continually working with the DESC to ensure FuelsManager Defense will comply with Gold Disk standards before deployment to 528 DoD locations worldwide in 2006.

* For more information, see the Varec DISA FSO Gold Disk Analysis Report, which describes the detailed results of applying the Gold Disk configuration settings to FuelsManager Defense 6.0.

For further information about Varec's measurement, control and automation solutions for defense applications, please email: defense@varec.com

"The NAS Fallon Fuels Division now has an excellent tool to monitor all major aspects of its fuel operations with the click of a few buttons. FuelsManager Defense is a comprehensive, easy-to-learn and user-friendly program that will become the standard for all DoD fuel operations once government certification is completed."

NAS Fallon Fuels Division

Varec®

Document Code
PRO034GVAE1005