



FuelsManager[®]
AVIATION



SkyLink and Varec - fueling a successful partnership through teamwork

Aviation Fuels Management System – Baghdad International Airport, Iraq



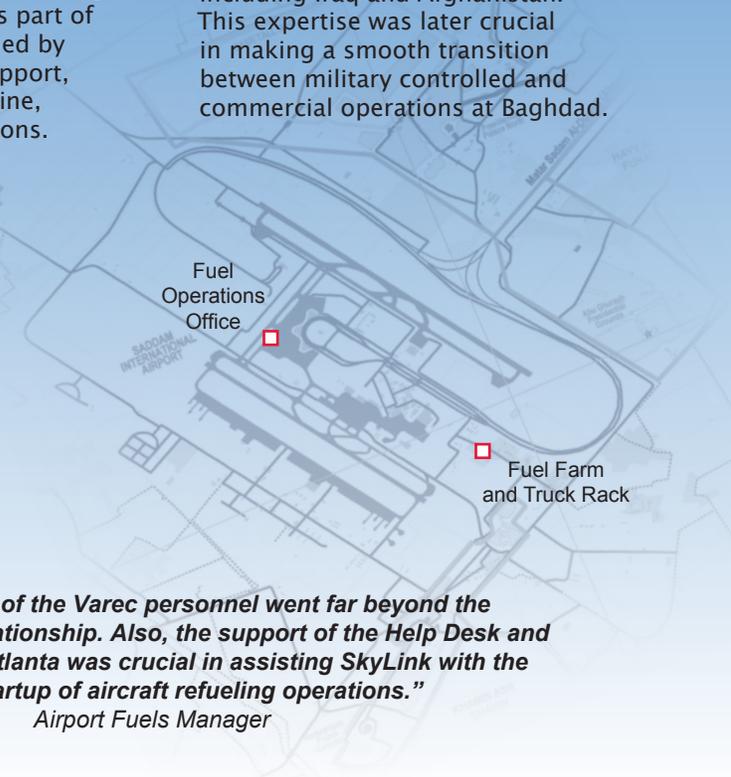
Baghdad International Airport

Baghdad International Airport is located approximately 10 miles (16 km) west of Baghdad. It is a joint civil-military airport with a civil international terminal on one side and a military ramp on the other.

The airport, which is currently being refurbished and repaired as part of a USAID package, is managed by SkyLink Air and Logistic Support, Inc. This includes all flightline, terminal and safety operations.

SkyLink Selects Varec

Varec was one of only three companies considered by the SkyLink Fuels Manager responsible for Iraq operations. Varec was selected due to proven expertise in fuels management systems at major commercial airports and U.S. military bases worldwide, including Iraq and Afghanistan. This expertise was later crucial in making a smooth transition between military controlled and commercial operations at Baghdad.



“The dedication of the Varec personnel went far beyond the contractor / client relationship. Also, the support of the Help Desk and IT staff located in Atlanta was crucial in assisting SkyLink with the system startup of aircraft refueling operations.”
Airport Fuels Manager



SkyLink		الدعم الجوي واللوجستي (الولايات المتحدة الأمريكية)		Air and Logistic Support (USA), Inc.	
Client: BAGHDAD INT	Refueling: <input checked="" type="checkbox"/>	Defueling: <input type="checkbox"/>	Date: 2 APR 2004	رقم: 0001	
Customer: USAF	AWG	Aircraft Reg. No.: 85001363	Aircraft Type: C130	رقم الرحلة: 09104	
Flight No: 0-1850	Altitude: 5013	AWG Card No.: A0138231	AWG No.: NICARD	رقم الإصدار: SKYLINK	
Priority: Cash	Value: 09104	Quantity in Liters: 425	Quantity in Gallons: 112.645	رقم المنتج: JET A1	
Total Amount (USD):		Product: JET A1	Flanking: B25	رقم الإصدار: 0981	
Supplier's Remarks:		Product: FUEL HAWKWOOD	Flanking: SL14	رقم الإصدار: 0981	
Signature: James V. Virec		Product: JET A1	Flanking: SL14	رقم الإصدار: 0981	
Signature: Alan N...		Product: JET A1	Flanking: SL14	رقم الإصدار: 0981	
Signature: Wayne P. G...		Product: JET A1	Flanking: SL14	رقم الإصدار: 0981	



Fuel Service Records (FSRs) were copied multiple times and faxed, mailed or handed to the relevant parties, which often lead to problems in daily bookkeeping.

Now the FSR, completed on the flightline, is input into FuelsManager Aviation at the fuel operations office for improved transaction management.

SkyLink and Varec

...fueling a successful partnership through teamwork

Existing Operations

The first step involved Varec and SkyLink personnel working together to identify the exact needs of the airport in the military controlled rebuilding phase, while also considering the projected needs of an automated fuels management system for a fully operational commercial airport. Two specific areas operated under makeshift procedures – the flightline and fuel farm.

The flightline fueling operation involved managing and tracking fuel loads and transactions using hand-written Fuel Service Records (FSRs or paper tickets). Data also had to be entered by the accounting department in a separate invoicing system and the FSR was electronically scanned for data transfer to the corporate office state-side. These processes consumed a lot of valuable man hours.

The fuel farm consisted of three fuel tanks connected to a truck load rack. Operators in the fuel farm control room moved fuel between the tanks and rack using a semi-functional, 20-year-old instrumentation and control panel. The panel provided basic control and display of pumps, valves and meters, but did not allow for any management of inventories or transactions.

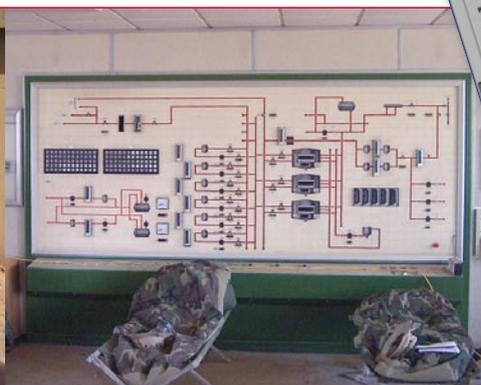
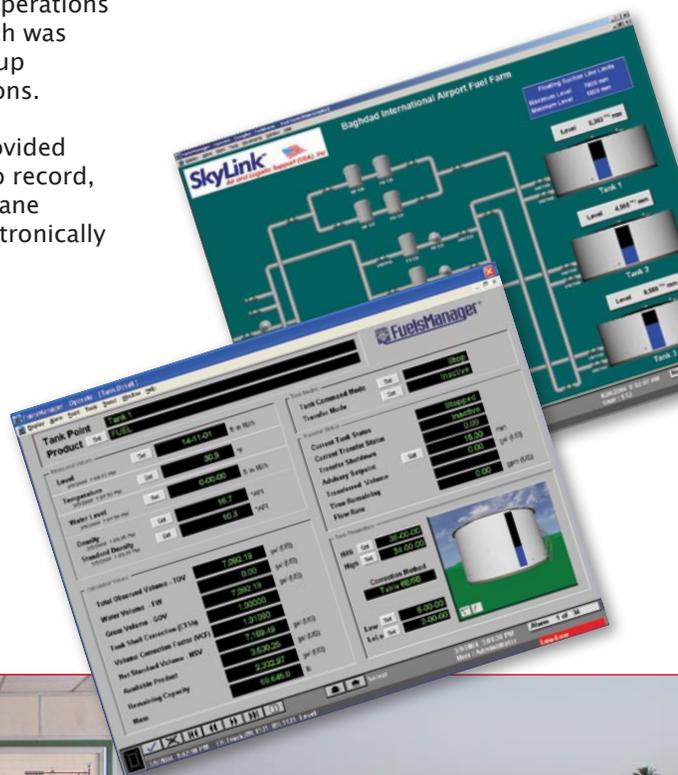
Varec Solution

Varec proposed installing its FuelsManager Aviation Professional Edition software along with all the necessary hardware in multiple phases. Working in concert with the airport rebuilding project, a Varec team, based in Baghdad and Atlanta, not only installed and configured the system, but trained on-site personnel and provided support to SkyLink personnel.

The first stage, installed in March 2004, replaced the existing system of distributing manual, handwritten FSRs. A FuelsManager Aviation data server was installed in the operations office on the flightline, which was essential for SkyLink's startup of aircraft refueling operations. Operators now have the full accounting functionality provided by FuelsManager Aviation to record, track and report the into-plane transactions (FSRs) and electronically transfer this data.

The second stage, implemented in June 2004, identified the need to provide complete inventory management capabilities at the fuel farm using a FuelsManager Aviation Professional Edition PC. Routine maintenance was performed on the existing Varec fuel tank gauges and the analog (4–20 mA) transmitters were upgraded to digital transmitters that communicate level and temperature data back to the fuel farm control room. This now allows the operators to see bulk inventories in real-time and report these levels electronically.

FuelsManager Aviation provides real-time inventory management. Also, the transaction journal displays a summary of each day's transaction data. Operators are able to quickly and easily add, view, modify or print a single or multiple transactions.



The 20-year-old existing equipment included original Varec 2500 ATG mechanical tank gauges that were still operational.

FuelsManager Aviation's SCADA capabilities will replace the out-dated instrumentation and control panel and offer complete pump and valve control at the fuel farm and truck rack.

FuelsManager[®] AVIATION

Future Implementations

To date, the Baghdad airport utilizes only a few of the extensive capabilities offered by FuelsManager Aviation Professional Edition. Approximately 20 non-military flights currently arrive and depart each day, but the airport has the capacity to handle 7.5 million passengers a year. As the Airport is brought online and rebuilt, the Varec project team will work with SkyLink to offer the following additional functionality:

- Fuel farm, hydrant and truck rack automation – pump/valve control
- Real-time, wireless communications between fuel farm and ramp operations office for airport-level and web-based fuel accounting and inventory reconciliation
- Real-time fuel dispatch operations management
- Automated Data Capture (ADC) at the wingtip with electronic fuel ticketing
- Leak detection and environmental monitoring
- Integration with airline, oil company and third-party ERP systems



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