

## Profiles in Success:

### TAKING CONTROL OF FUEL COSTSWITH NAUTICAL CONTROL SOLUTIONS™ AND IRIDIUM®



With the price of fuel continuing to rise, U.S. United Ocean Services (formerly TECO Ocean Shipping) is happy it installed FuelTrax™ in 2005. Saving more than ten percent of its fuel costs, the company has also been able to optimize operations in other ways to have an even greater impact on the bottom line.

U.S. United Ocean Services (UOS) is the ocean transportation arm of the United Maritime Group family of companies, carrying dry bulk commodities internationally and domestically between all U.S. deep-water ports. The company operates twelve vessels ranging in size from 12,200 to 42,800 deadweight tons (DWT), having a total shipping capacity of approximately 400,000 DWT.

In early 2005, UOS began actively seeking ways to reduce rising fuel costs. Even at that time the cost of fuel was becoming the company's largest operating expense and has escalated ever since. UOS was looking for technologies that could monitor and report fuel consumed, in order to manage and control this increasing expense item. After evaluating several fuel-monitoring technologies, UOS selected the FuelTrax system from Houston-based Nautical Control Solutions™ (NCS) for a rigorous evaluation.

NCS, an Iridium® Value-Added Reseller (VAR), is dedicated to the development of marine automation and management solutions to optimize fleet performance. The first comprehensive fuel management system designed specifically for the marine industry, the FuelTrax Suite

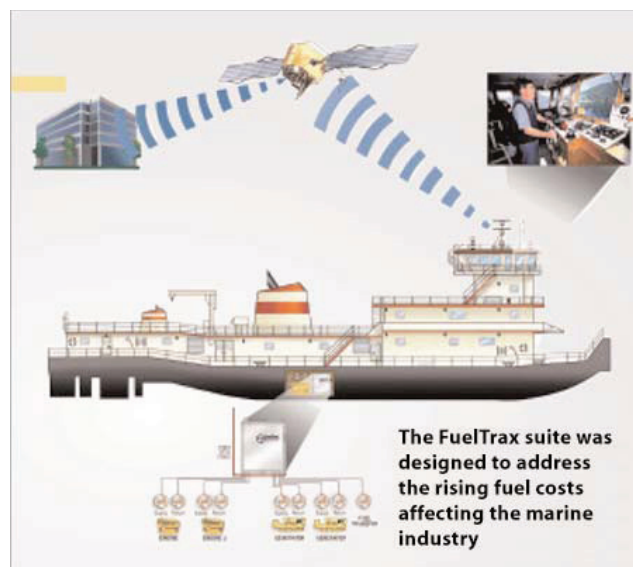


NAUTICAL  
CONTROL  
SOLUTIONS

improves the performance of marine vessels and fleets through tighter management controls, fuel accountability, and optimization. The vessel-based FuelTrax monitoring system is used by vessel operations to monitor fuel flow, optimize fuel efficiency, and view fuel levels in tanks. The patented suite combines state-of-the-art vessel-based

electronics with the Iridium satellite network and the power of the Internet to optimize fleet performance. Onboard wheelhouse monitoring allows throttle adjustments that reduce fuel consumption, typically with little to no loss of speed.

In July 2005, UOS installed the technology on one vessel as part of a structured evaluation program intended to prove its effectiveness. The initial application was to simply monitor fuel burn rates, engine performance and crew operations. FuelTrax captured and archived all data during this time period in FuelNet™, the tool's Web-based executive dashboard. FuelTrax transmits vessel operations



**The FuelTrax suite was designed to address the rising fuel costs affecting the marine industry**

data through the Iridium satellite network and maintains it in the FuelNet database in Houston, Texas.

At the conclusion of the first month, UOS operations, maintenance and engineering staff were able to access and graphically view detailed information on vessel fuel consumption and engine analysis. During the following thirty days, training was done for the crew to utilize the technology most effectively.

With visibility into accurate fuel consumption data and knowledge of how to optimize the solution to meet their needs, the UOS team quickly began to realize significant benefits and initiated installation of the FuelTrax solution on additional vessels.

Since that time, as a result of using the FuelTrax solution, UOS has been able to:

- Reduce fuel consumption by ten percent on individual vessels in specific service conditions without compromising operations, exceeding payback expectations
- More accurately monitor engine and vessel performance and wear for improved fleet management and vessel maintenance
- Extend the utilization of its vessels by more accurately predicting when engines and propulsion systems must be overhauled

- Assess new technologies that offer increased fuel savings (including fuel additives, engine modifications, hull conditioning, vessel routing and vessel design, and various operating modes) thanks to the ability to compare the impact of these technologies against valid and highly accurate baseline fuel consumption data
- Optimize fuel consumption based on vessel and operating conditions and determine the “BestSpeed” (the point on the fuel curve at which no substantial additional speed will result from an increase in fuel consumption) and “BestEconomy” (the point on the fuel curve where there is a one-to-one trade-off between fuel consumption and speed) for a particular vessel on any given route, at any given time. As a result, vessel operations can make the best business decision based on customer needs

Over time, the captains and crew have developed best practices across the fleet, resulting in even greater fuel savings. Today, the system is installed on six bulk carriers trading between Africa, the Mediterranean, and the U.S. The convergence of fuel monitoring, satellite communications and the Internet is changing the game in marine fuel management and helping the marine industry navigate one of its most challenging periods in history.



## Britoil Gets on Track with FuelTrax™



### Britoil Offshore Services Pte Ltd

As fuel prices continue to soar, so does demand for NCS's fuel management system. Most recently, Britoil Offshore Services announced that it has implemented the first of several FuelTrax fuel monitoring and accountability systems. Britoil Offshore Services is a leading provider of offshore service vessels on a charter hire basis, providing anchor handling, towing and transportation of a wide variety of materials.

"FuelTrax is undoubtedly the best system I have ever come across, and is something Britoil has been dreaming of for years," said David Hill, Managing Director for Britoil Offshore

Services. "It also allows us to make informed management decisions regarding vessel operations, such as throttle or engine RPM settings, and analyze the data to validate operating strategies. FuelTrax helps to maximize fuel efficiency and allows us the flexibility to operate our fleet more efficiently."

Hill goes on to say that "the FuelTrax system provides access to information about vessel operations that we've not had before. We intend to equip our entire fleet with FuelTrax, which will allow us to monitor and better manage vessel fuel consumption and inventory. The system also identifies any irregular fuel transfers and unexpected supply shortages, no matter where a vessel may be located."

## NCS adds new Iridium-powered email access to FuelTrax



Continuing to enhance its FuelTrax suite, NCS announced in February 2008 that it is offering an extension that will provide the vessel crew with email access from any location worldwide. The new email capability is enabled through the Iridium satellite services, providing global satellite communications for the vessel-based FuelTrax fuel management system.

"We are excited about what this extension to FuelTrax will mean for our customers," said Anthony George, CEO and founder of NCS. "There are multiple uses for email between

the crew and shore operations. Vessel operations will be able to send and receive email with large attachments. Adding to the capabilities of FuelTrax to record and manage fuel usage and inventory, this enhancement to FuelTrax will enable our customers to obtain greater value through better communications."

FuelTrax email uses the same advanced compression techniques for text-based email and spreadsheets. Data is highly compressed and encrypted, providing quick, efficient and secure data transmission, and allowing attachments up to 500KB. Once email is received, it is decrypted and decompressed, formatted into the appropriate email format, and routed to the intended recipient.

More information on FuelTrax and FuelNet can be found at [www.FuelTrax.com](http://www.FuelTrax.com).