

Petronas vessel tracking system driving better safety, security, cost & operational efficiency



As the number of deep water explorations and production sites increase PETRONAS require an ever increasing number of maritime vessels to meet the greater demand to move personnel and equipment safely and securely between sites. Coupled with the rising costs of services PETRONAS also spent a considerable amount of time looking at better ways to manage their maritime commercial fleets more efficiently with a view to reduce costs through improved efficiencies and cost avoidance through fleet rationalisation. The deployment of a dedicated, industry proven and highly capable vessel tracking system was considered the most cost effective and immediate route to achieving the corporate objectives.



As a result of this PETRONAS signed a multi-year contract in July 2014 to deploy the CLEARWATER Vessel Tracking System for its' fleet of some 150 offshore supply vessels supporting operations in the South China Sea. The total scope of work included the supply of state-of-the-art tracking equipment (Figure 1.) and services for up to 150 vessels as well as the provision of 7 operators in West Logistics Command Centre (WLCC) and East Logistics Command Centre (ELCC) in Kemaman and Labuan respectively.

Real time tracking

PETRONAS can report that more than 75% of the offshore supply vessels are now outfitted with the "Raptor" automated satellite messaging terminal. These terminals deliver a real time tracking capability through the transmission of GPS reports every 15 minutes to the CLEARWATER portal monitored 24/7 in the West and East Logistic Command Centres 365 days the year. The real time tracking of vessels provides PETRONAS with unparalleled vessel visibility , constant situational awareness enabling further fleet efficiencies through the dispatching of the right (and closest) vessels to meet its' transportation needs.

Speed management

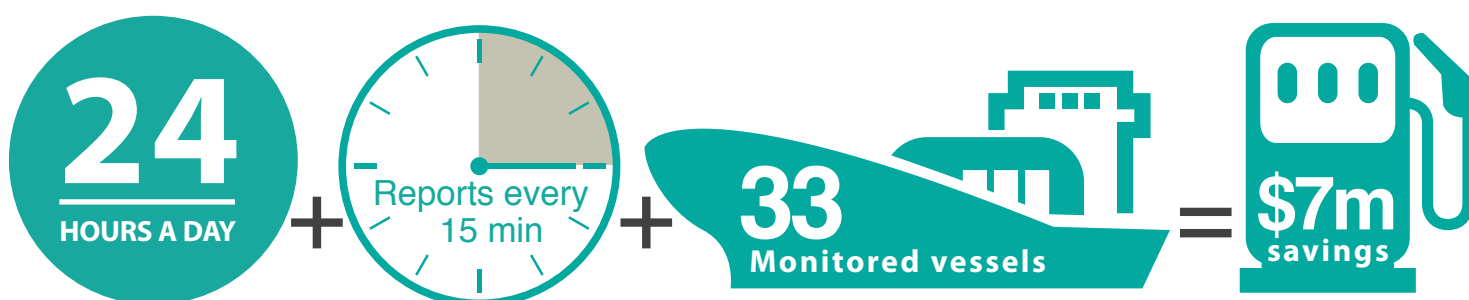
Besides location information, the vessel tracking solution provides real time visibility of vessels speeds. This allows the company to enforce policies which include ensuring vessels adhere to optimal vessel speeds (in most cases 8 knots) thereby reducing excessive fuel consumption and encouraging lower carbon emissions. The additional ability to define virtual geo fences has allowed the client to specify pre-approved routes between supply bases and offshore installations. Vessels that do not adhere to these routes are required to provide justification for the additional fuel costs incurred and voyage time delays.

Tracking towards better industry compliance

PETRONAS have long recognised the importance of maintaining high standards of industry compliance as a major factor in the improvement of operating efficiencies. Teams of highly qualified CLEARWATER appointed vessel tracking operators provide additional benefits to PETRONAS through the 24/7 enforcement of vessel compliance. Compliance ensures that vessel operators provide timely passage plans and vessel daily reports and adhere to strict speed controls. Since September 2014 industry compliance cross the offshore supply vessel fleet has risen by 30% creating immediate operating efficiencies.

Right course for better fuel management

The voyage, speed and compliance management of vessels has already shown major cost saving results. During the period September to December 2014 one location (33 tracked vessels) reported fuel savings exceeding MYR 25,000,000 equivalent to USD 7 Million. In other words a saving of 70 USD for every 1 USD invested in Clearwater Tracking Technology. The reduction was largely attributed to the requirement that vessels strictly adhere to the pre-voyage route plans as well as maintaining their speeds at the most economical (contractual) charter speeds.



Improved berthing and anchorage times

The real time tracking of vessels has afforded another type of information that was previously unavailable to PETRONAS. The company now receives daily reports that show berthing and anchorage duration times for each vessel. It has also allowed the company to identify potential maintenance or oversupply of offshore vessels. If extended berthing times are due to maintenance issues, the client can deal with the issue through the maintenance contract provisions. If there is an oversupply of services, the company can make the informed decision to retire inactive vessels. In both cases there is a potential for the company to save even more thousands of dollars in operating expenses and fleet rationalisation.

Measure of good will

The ability to accurately track the location of supply vessels has delivered an additional and unexpected benefit. Recently a merchant vessel travelling in the region was in distress and required immediate assistance. The local coast guard contacted PETRONAS command centre to see if they had a nearby vessel that could be dispatched. The centre was quickly able to locate and dispatch a nearby offshore supply vessel and the crew of the merchant vessel were safely rescued. For PETRONAS, the ability to save millions of dollars on marine operating costs was enough to declare the project a success. The opportunity to be a good corporate citizen is a pleasant bonus.