

Straits Project 4

Setting up a Tide, Current and Wind Measurement System For Straits of Malacca and Singapore



Presentation to 5th Co-operative Forum

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Objective

To enhance navigational safety and marine environment protection in the Straits of Malacca and Singapore through continuous collection and processing of tide, current and wind data

Current Situation

Tide, current and wind in the Malacca and Singapore Straits

- ❖ Separately monitored by the individual littoral States, where available

Enhance navigation safety and environmental protection

- ❖ Real time tidal info for ships navigating shallow waters
- ❖ Accurate current and wind data to facilitate effective response to pollution incident and search & rescue operation



Potential Benefits and Application

Deep draft vessels

- ❖ Ensure adequate under keel clearance and avoid navigational danger

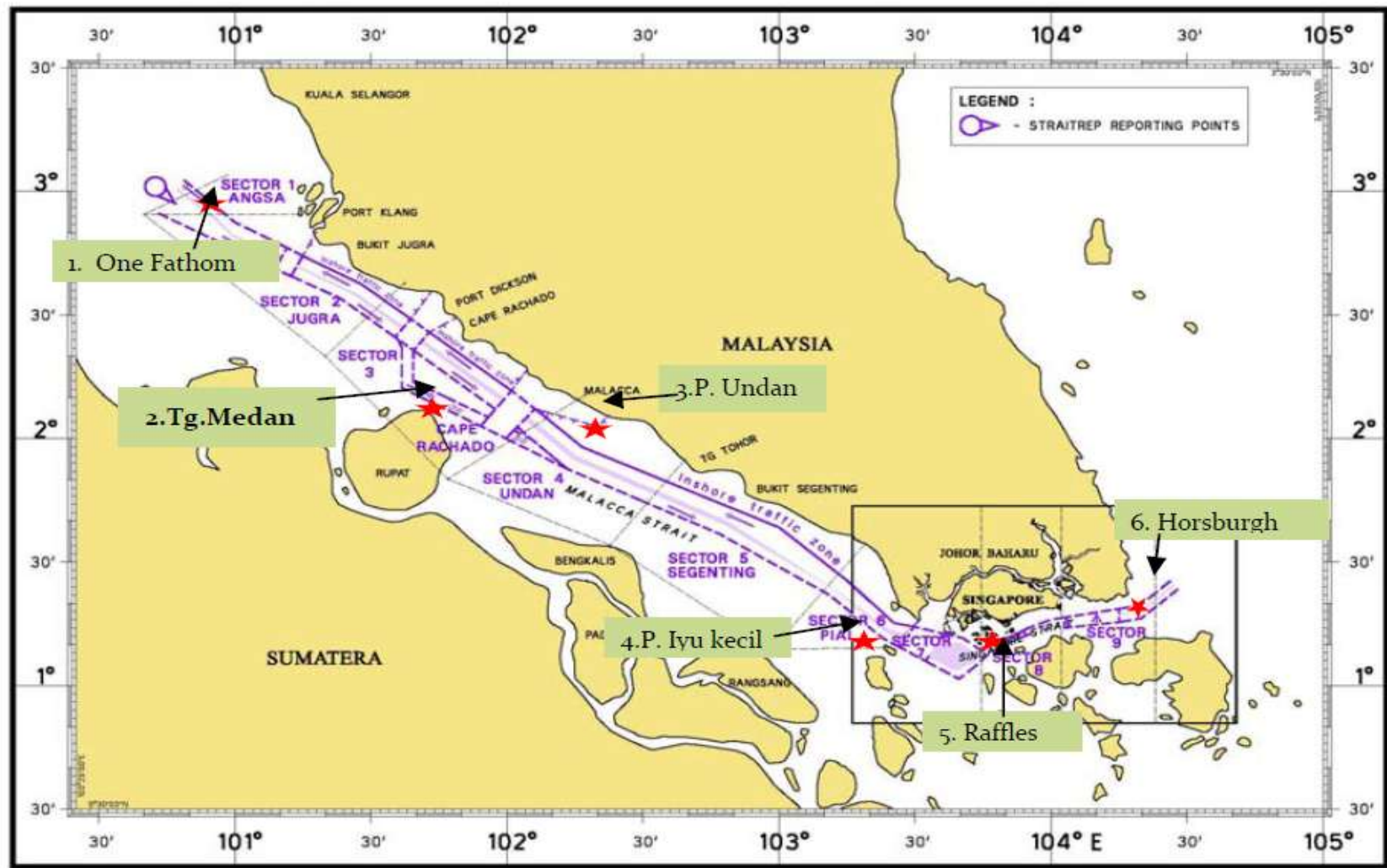
Assist shipping lines in voyage planning

- ❖ Maximise economic benefits such as saving fuel and improve ship schedule

Enhance prediction accuracy of oil/chemical spill trajectory and search & rescue operations

- ❖ Enable effective deployment of limited resources
- ❖ Minimise marine environment damage

Location of Six Stations



Scope of Work

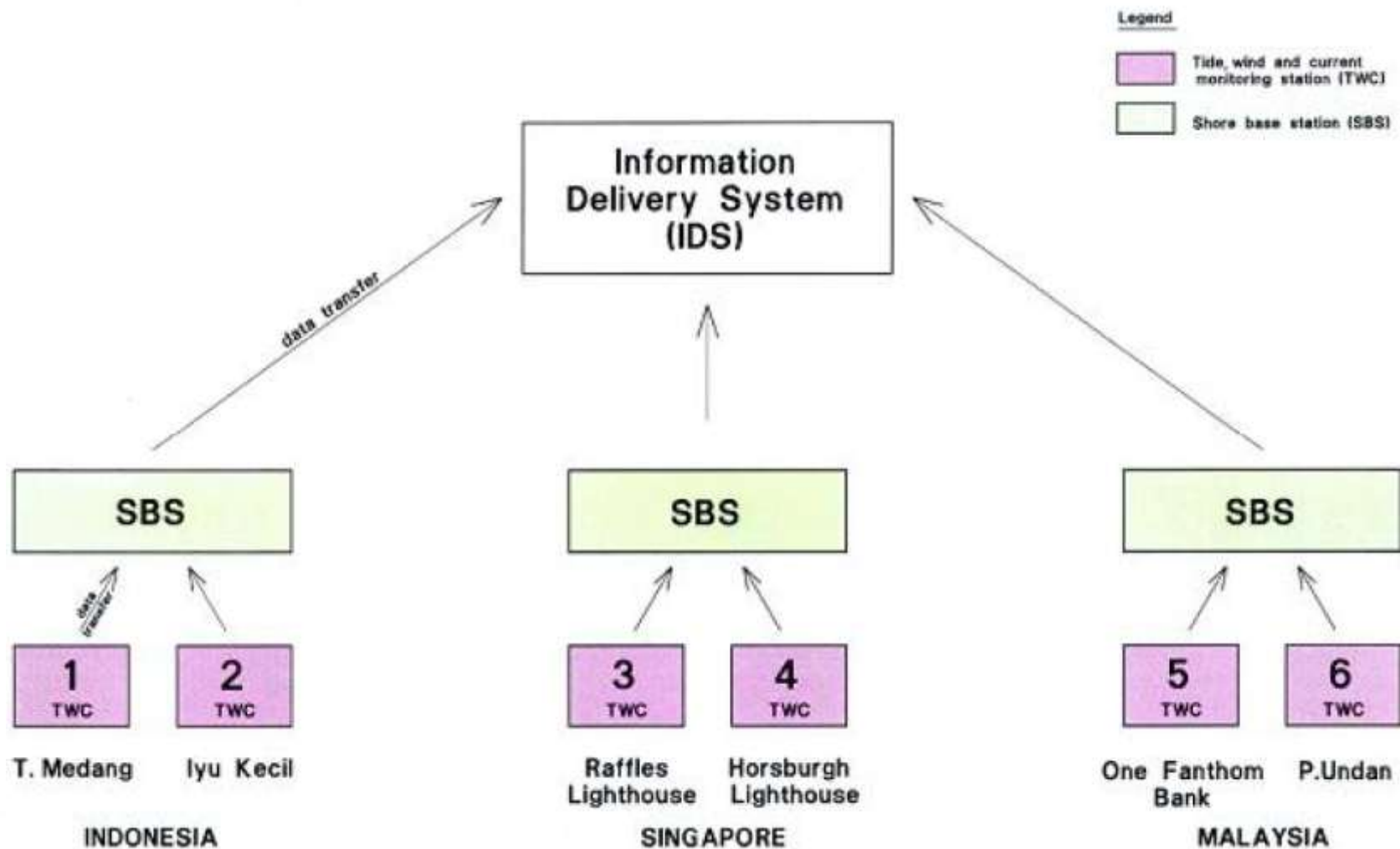
Install Tide, current and wind Stations (6 nos) in the Malacca and Singapore Straits

Information Delivery System

- ❖ An easily accessible internet based platform to display real time tide, current and wind data



Scope of Work



Contributions

China has provided technical expertise to project and funding of US\$0.55Million since Oct 07

India has provided technical expertise to project and funding of US\$1.687 Million since Dec 08

Key Milestones Achieved

Project 100% Completed and Operational

Singapore

Raffles Lighthouse Station – July 2011

Shore Base Station – July 2011

Information Display System - July 2011

Horsburgh Lighthouse Station – Nov 2011

Indonesia

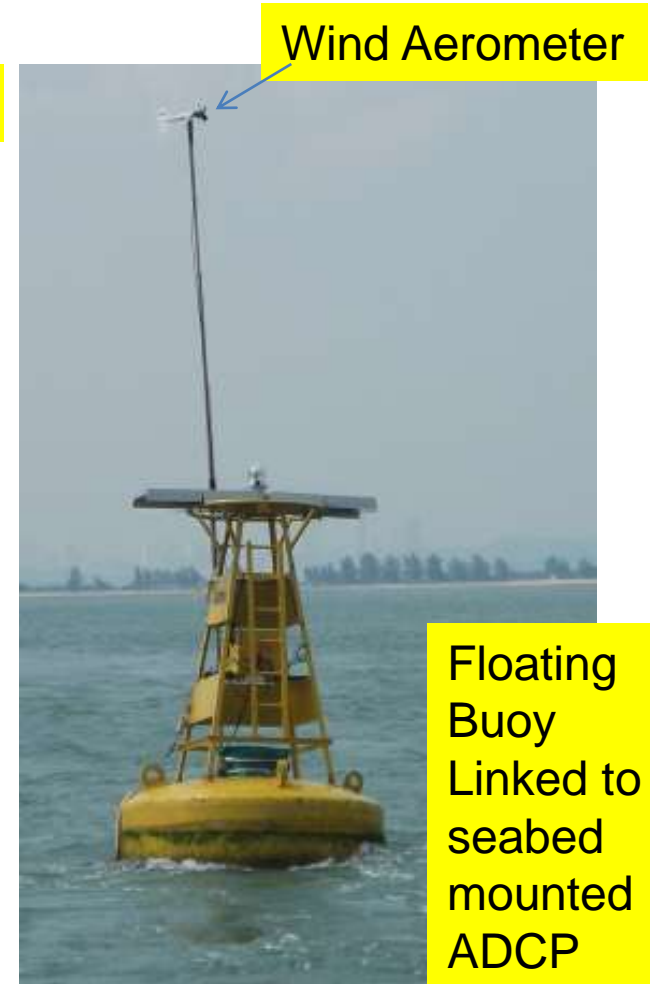
Tanjong Medang and Iyu Kecil Stations – Nov 2011

Shore Base Station in Batam – Jan 2012

Malaysia

One Fathom Bank and Pulau Undan Stations – June 2012

Completed Station at Raffles Lighthouse



Completed Station at Horsburgh Lighthouse

Telemetry Device
linked to satellite



Solar Panels



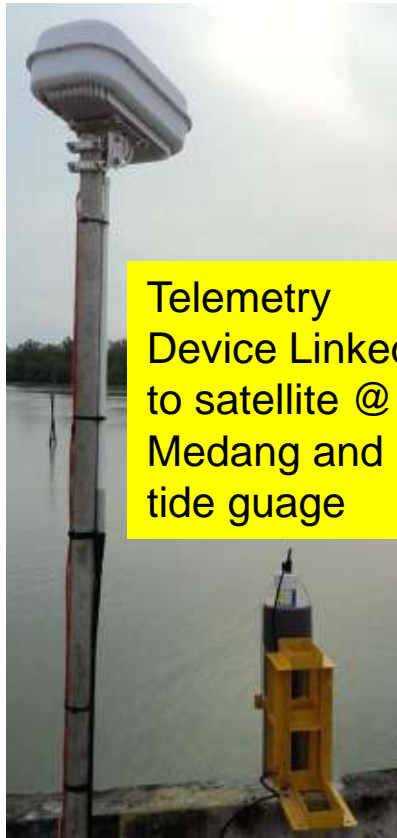
Tide
Gauge



Wind Aerometer



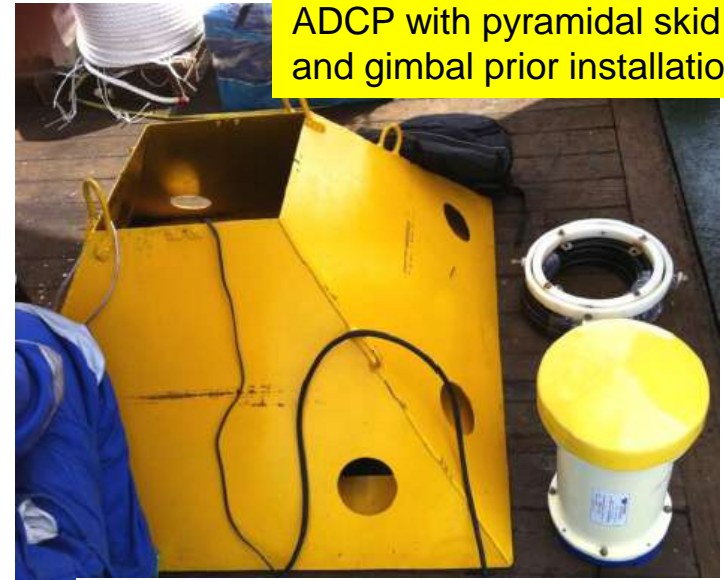
Completed Station at T. Medang and Iyu Kecil, Indonesia



Telemetry Device Linked to satellite @ T Medang and tide guage



2.44m Oceanographic buoy with light, solar module, wind sensor and instrument box at Iyu Kecil



ADCP with pyramidal skid and gimbal prior installation



Shore base station at Batam VTS centre

IDS Client PC

SBS Server

1-hr Uninterruptible Power Supply (UPS)

Completed Stations at One Fantom Bank and P Undan

Oceanographic buoy with light, solar module, wind sensor and instrument box




ADCP prior installation



Buoy deployment



Information Display System




Info@SEA

is a dissemination portal for Meteorological-Ocean (Met-Ocean) information services for the benefit of the maritime, offshore, marine engineering and marine recreational community.

The Info@SEA Water Forecast service provides high resolution operational forecasts of tides, water levels, waves and surge throughout the Singapore Straits, Malacca Straits, South China Sea and Bay of Bengal. The service is based on DHT's in-house state of the art simulation models. Subscribers are offered detailed forecasts covering ports, offshore fields or coastal zone tailored to specific needs and requirements. Tailored forecasts are available from the secure and dedicated website and can also be transmitted via email and SMS.

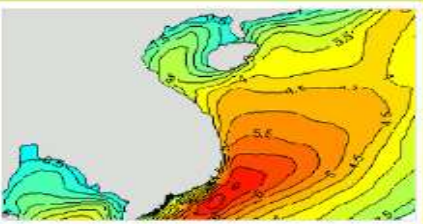
For more information, please contact us at enquiry@infoatsea.com



01 SINGAPORE STRAITS FORECAST

A revolutionary information service to improve operational efficiency and safety of current sensitive marine activities has been launched in Singapore. The product - called **STRAITSFORECAST** - is now available for pilots, terminal operators, marine contractors, marine engineering consultants and public recreation users.

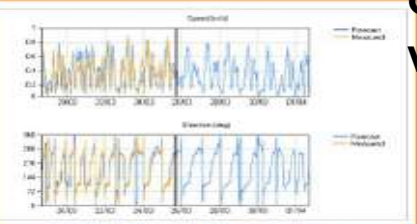
[read more](#)



02 SOUTH CHINA SEA FORECAST

The **South China Sea** is strongly influenced by monsoon and typhoon generated waves which effect the feasibility and safety of many marine activities.

[read more](#)



03 SOUTH EAST ASIA REGIONAL FORECAST

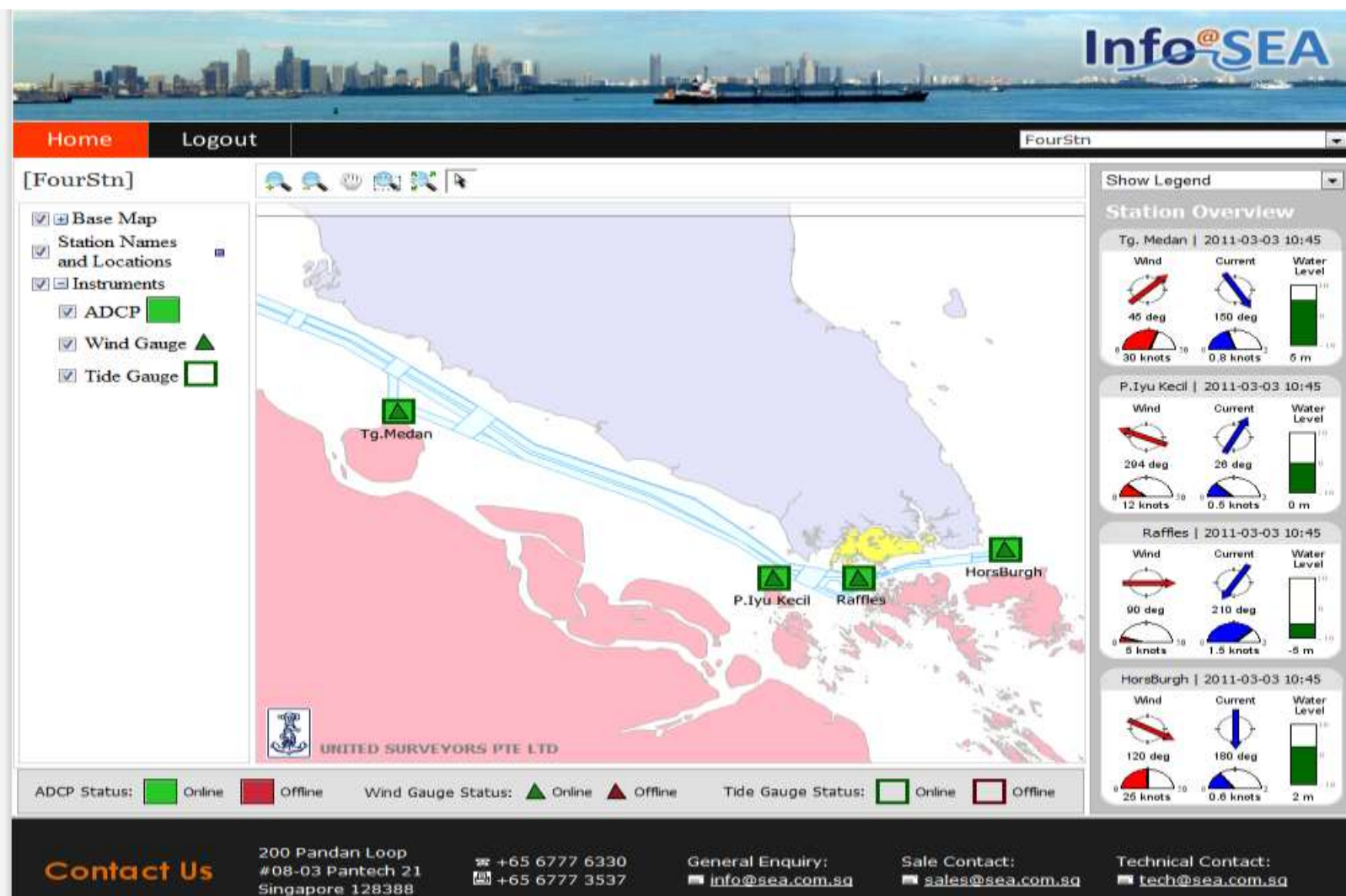
COMING SOON !!!

The **Straits of Malacca** is one of the most important shipping lanes in the world with 50,000 ships passing through each year. A quarter of the world's sea trade, including 11 million barrels of oil per day pass through the 500-mile long shipping lane.

[read more](#)

Password can be obtained at www.infoatsea.com

Information Display System



Recommendations

Explore synergies between Project 4 and Marine Electronic Highway (MEH)

- ❖ Project 4 data's shared with MEH and uploaded on its website since Feb 2012; and
- ❖ Similarities on tide, wind and current stations for both projects.

To be discussed at the 37th TTEG and 5th Project Co-ordination Committee Meetings

Thank you
