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

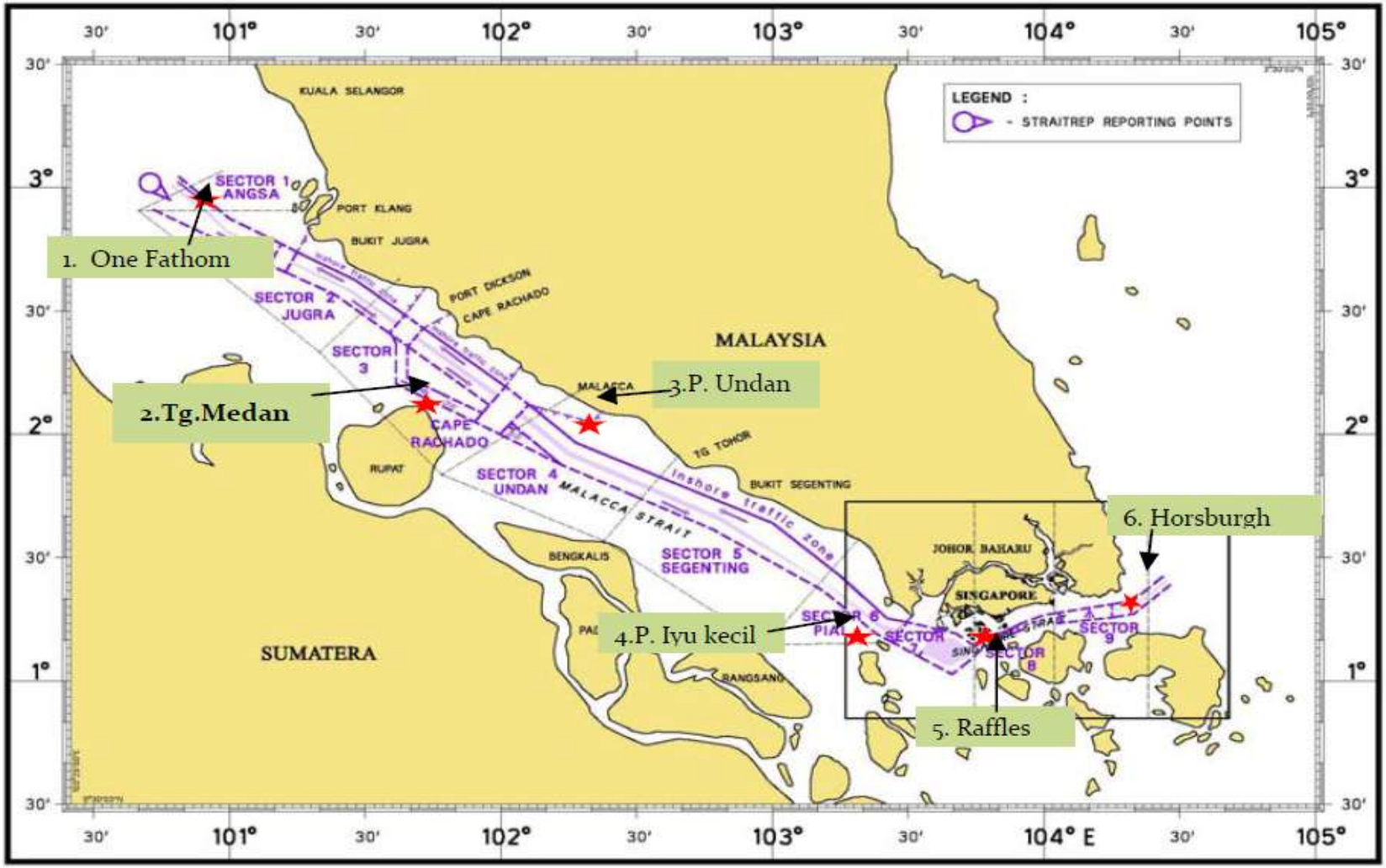
Assist shipping lines in voyage planning

- **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



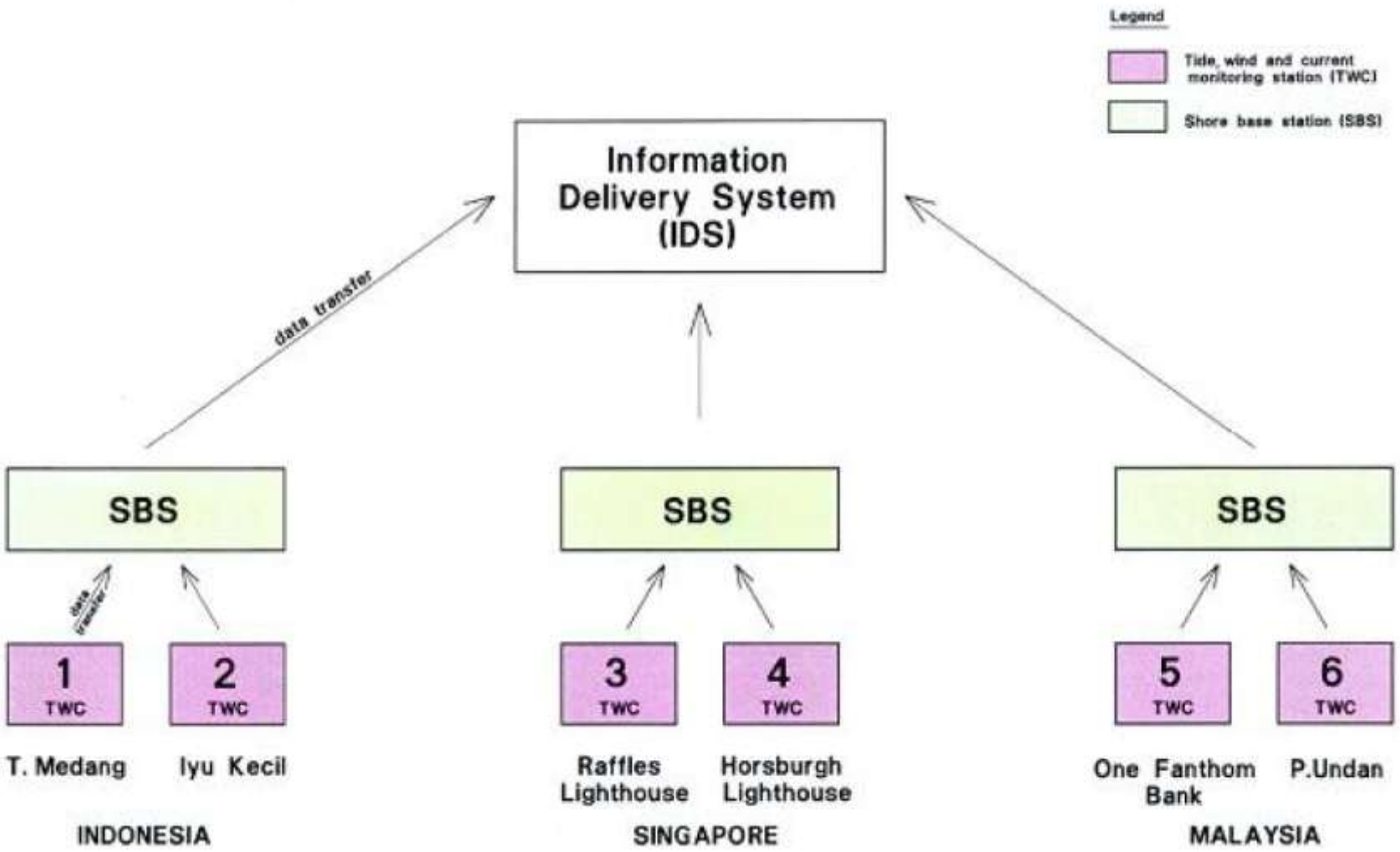
Scope of Work

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

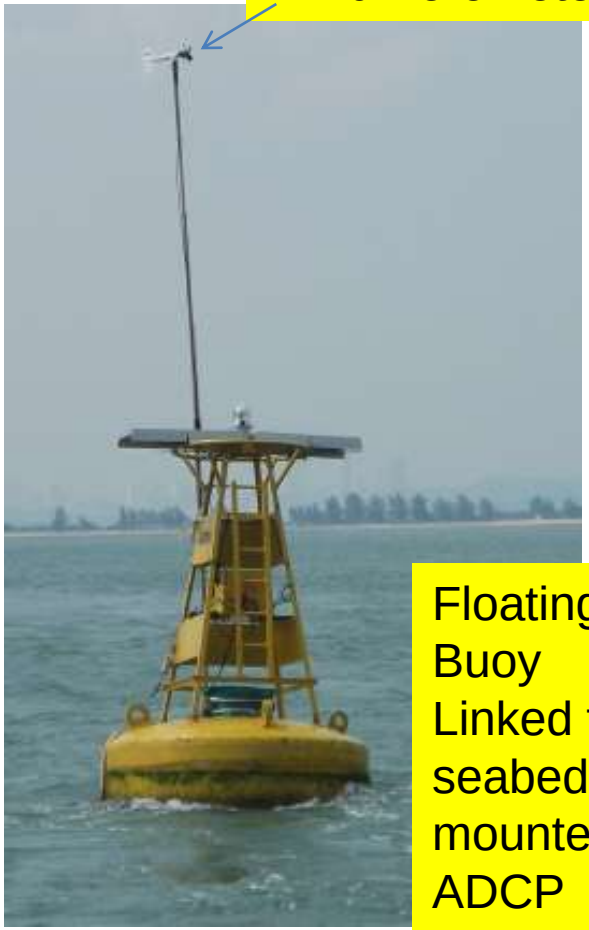
Project 100% Completed and Operational

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 Fanthom Bank and Pulau Undan Stations – June 2012

Completed Station at Raffles Lighthouse



Completed Station at Horsburgh Lighthouse

Telemetry Device linked to satellite

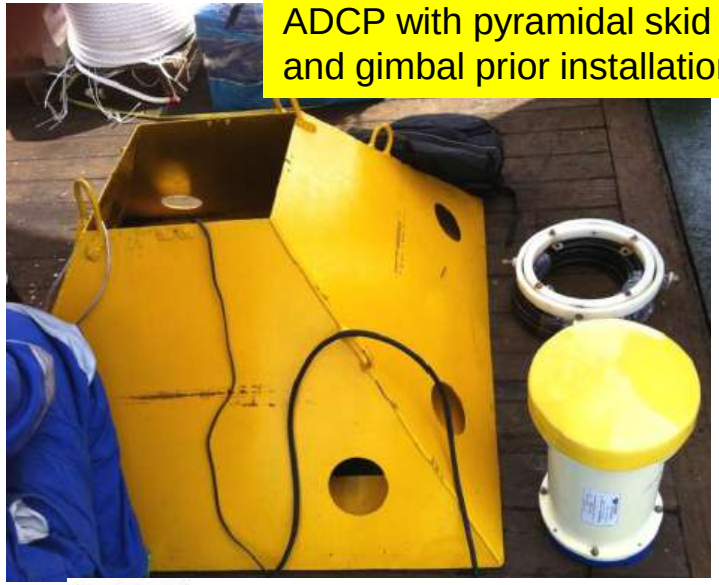
Solar Panels

Wind Aerometer

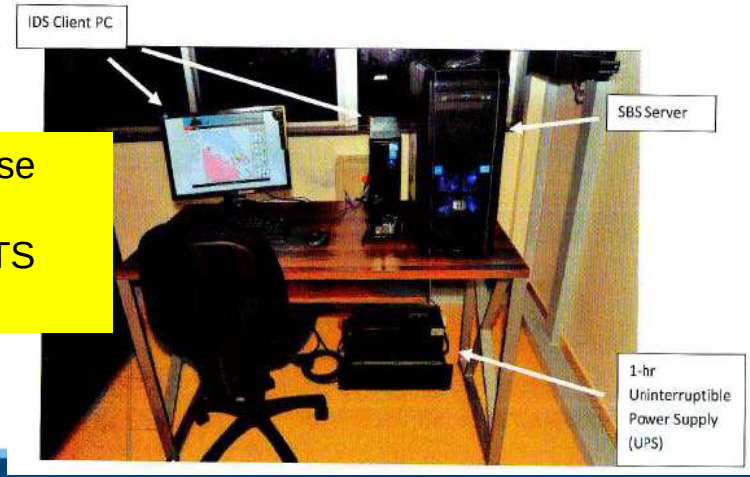
Completed Station at T. Medang and Iyu Kecil, Indonesia

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

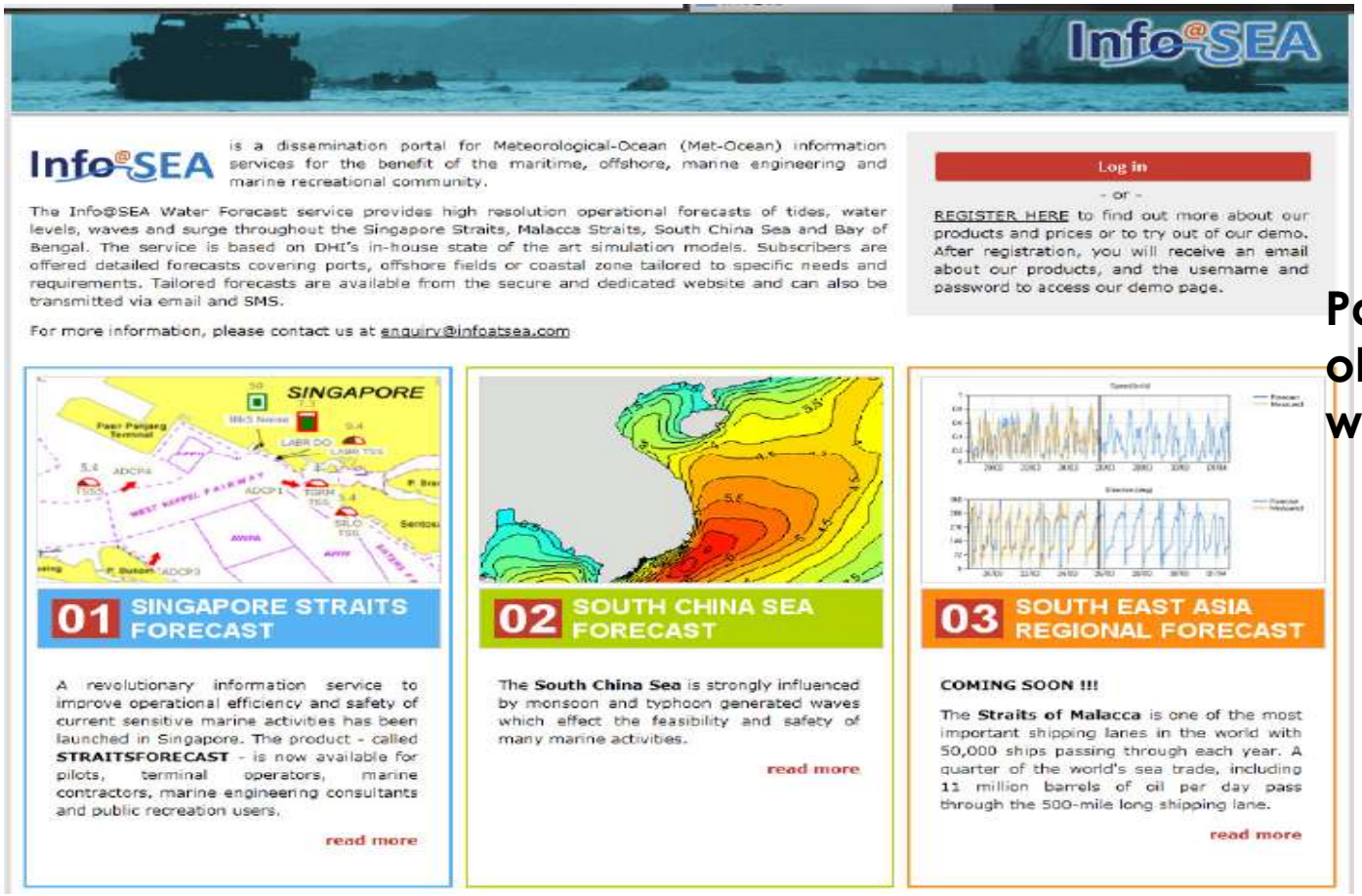
Completed Stations at One Fantom Bank and P Undan

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

ADCP prior installation

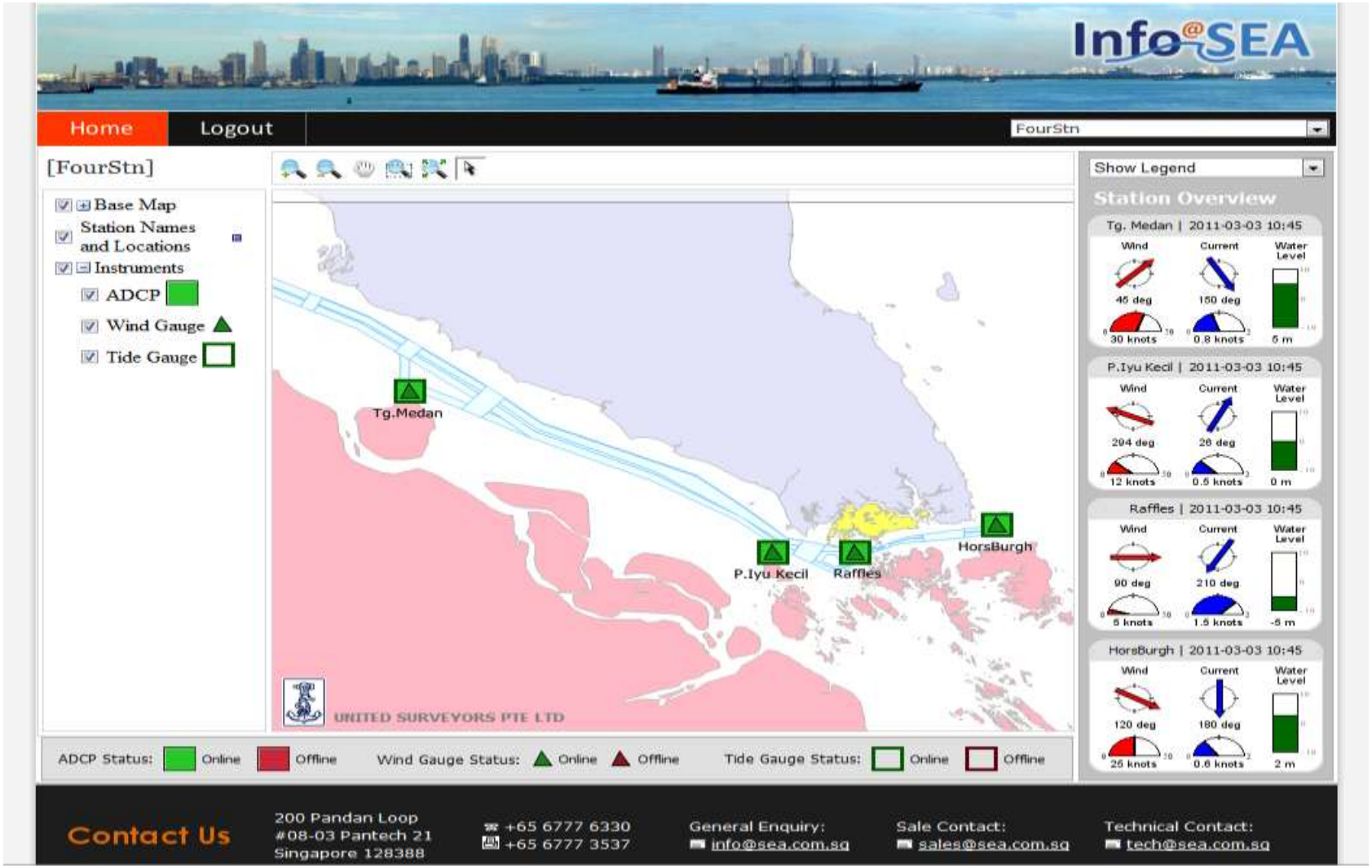
Buoy deployment

Information Display System



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