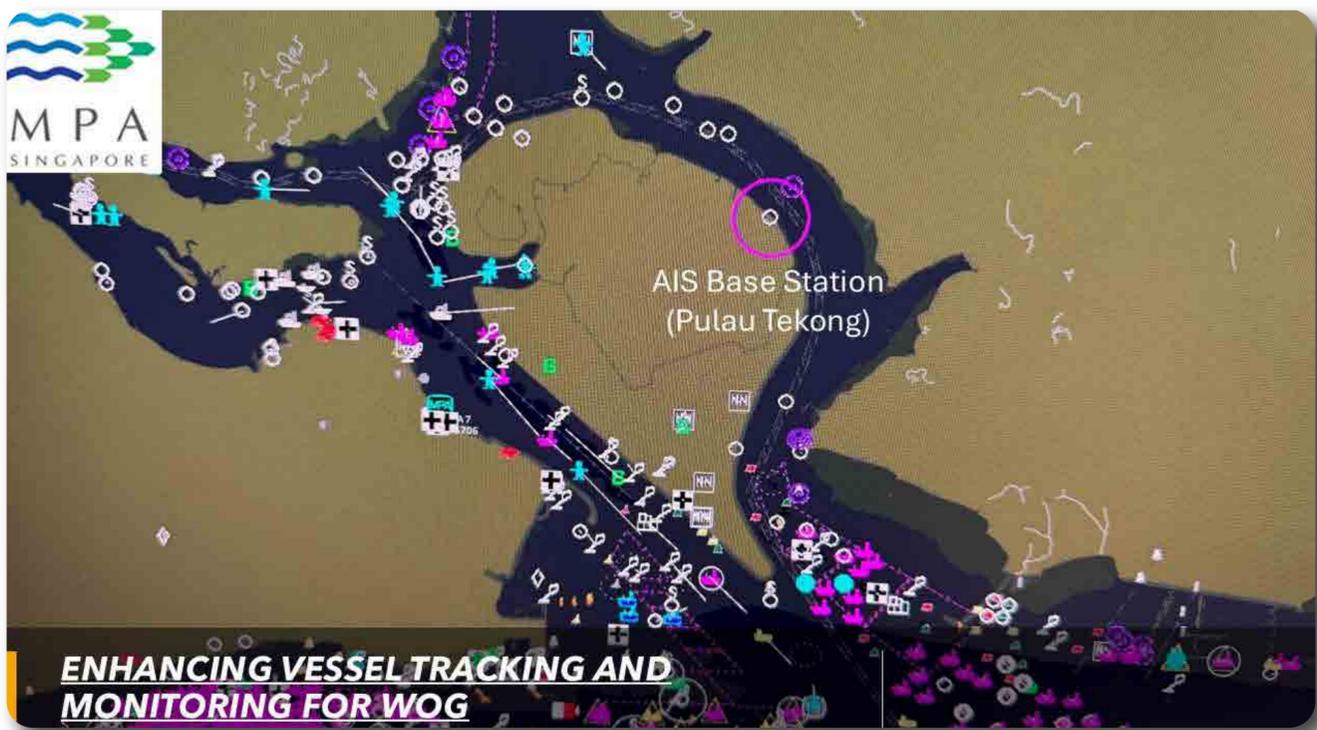


MINISTER'S VALUE-FOR-MONEY ACHIEVEMENT AWARD



MERIT AWARD

ENHANCING VESSEL TRACKING AND MONITORING FOR WOG



PROJECT TEAM



Khoo Ken Leong, Dennis

Advisor

Tan Eng Wah

Team Leader

Lu Chin Leong

Member

Tee Kim Chuan

Member

Muhammad Kamal Bin Ahmad

Member

Koh Boon Wee

Member

OVERVIEW

NEED FOR
PROJECT

SOLUTION

IMPACT

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NEED FOR PROJECT



- VTM operators monitoring the Pulau Tekong area had reported deteriorating Automatic Identification System (AIS) coverage from vessels operating in the north-eastern waters. This degradation was assessed to be caused by the evolving coastal landscape in the region over recent years, resulting in new AIS coverage blind spots.
- Based on VTM operators' feedback:
 - Coverage degradation was primarily confined to the north-eastern waters of Pulau Tekong.
 - The AIS tracks of vessels entering these waters disappeared and only reappeared when vessels reached open waters beyond the affected area.

PROBLEM STATEMENT

Need to implement a cost-effective solution that enhances AIS reception coverage for vessels operating in the north-eastern waters of Pulau Tekong, thereby eliminating current blind spots and restoring continuous vessel tracking capability for VTM operators.

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SOLUTION

- Evaluated two solutions:
 - Solution 1: Lease rooftop and equipment room space from commercial buildings (e.g., Changi Exhibition Centre) along Singapore's north-eastern coast for the installation and operation of a new AIS base-station. Implementation time: approximately three years.
 - Solution 2: Leverage existing Whole-of-Government (WOG) infrastructure, specifically the Police Coast Guard's (PCG) antenna tower and equipment room on Pulau Tekong, for the installation and operation of a new AIS base-station. Implementation time: approximately two years.
- Selected Solution 2 for implementation due to cost avoidance and a one-year reduction in implementation time.



SOLUTION STATEMENT

Installed a new AIS base-station to enhance AIS line-of-sight coverage over the north-eastern waters of Pulau Tekong.

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IMPACT



- With the successful implementation of a new AIS base-station on PCG's existing tower on Pulau Tekong, AIS coverage and the sea-situational picture of the north-eastern waters around Pulau Tekong were being significantly enhanced.
- The enhancement proved effective, with no adverse feedback received from VTM operators in the 12 months following implementation.
- Cost savings: \$0.98mil for rental over 10 years and site preparation.

OUTCOME STATEMENT

The project successfully enhanced vessel tracking and monitoring capabilities through efficient leveraging of existing Whole-of-Government infrastructure and inter-agency cooperation, delivering effective outcomes with significant economic benefits.