



Sharpening Awareness, Strengthening Maritime Security in the Malacca and Singapore Straits

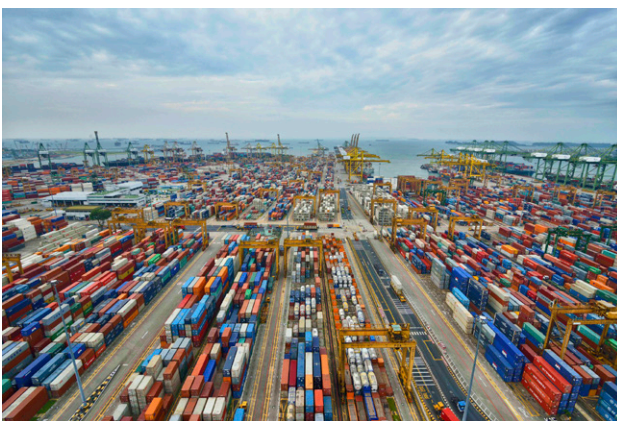
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Singapore's security, safety, and economic well-being rely on sound governance of the Malacca and Singapore Straits and a continued commitment to maritime domain awareness (MDA). Fortunately, there are proven methodologies, tools, and tactics for improving MDA, as well as incident response and recovery, along these 900-plus combined kilometers.

With offshore oil and gas development, illegal fishing, Exclusive Economic Zone boundaries, piracy, and narcotics trafficking to monitor, maritime security along the Malacca and Singapore Straits is a multifaceted endeavor.

The straits' considerable length and narrowness in areas invite security threats and illicit activity. Meanwhile, political tensions in the South China Sea, the possibility of countries reacting with military action, and terrorism remain concerns. Several violent extremist organizations are known to operate in Malaysia and Indonesia, and hundreds of Malaysians and Indonesians are reported to be fighting with the Islamic State of Iraq and Syria (ISIS).



Furthermore, Singapore is connected to 600 ports in 123 countries globally—making traffic monitoring a logistical challenge for harbor pilots, dock workers, maritime operations centers (MOC), and the agencies that oversee them.

Enhanced Awareness, Shared Among Stakeholders

In an environment like this, MDA matters. Heightened capabilities in this area can help decision-makers predict entity status, determine relationships, and assess situations, threats, and potential impacts in real time. Heightened MDA makes effective collaboration, resource allocation, and response possible.

To take their MDA to the next level, government agencies need—

- **Data collection** related to vessels, crew, cargo, ship locations, finances, infrastructure, the overall environment, and more
- **Data fusion** to correlate seemingly disparate data for subsequent analysis
- **Data analysis** to detect activities of interest, operating patterns, anomalies, capabilities, and intent
- **Dissemination** of data for informed decisions and timely action.

MOCs already collect satellite data, coastal radar readings, attack reports, and maritime feeds and receive real-time vessel information via Automatic Identification System (AIS) transponders. This data is also communicated to aircraft, shore stations, navigation aids, other ships, and satellite systems.

Yet some ships in the Malacca and Singapore Straits turn off their AIS transponders, either to hide their whereabouts from pirates or to shield illicit activities, such as ship-to-ship transfers of goods to avoid port taxes and fees.



Agencies can fill in gaps like these, and enrich the information they already collect, with additional intelligence, including—

- **Analyses of shipping and port companies for health, risk, and possible red flags**, such as signs of illicit activities
- **“Deep dive” studies** into the crews and companies of high-interest vessels
- **Forensics**, such as fingerprints and biometrics for Singapore’s thousands of shipping employees
- **Statistical and relationship analyses of AIS data, which can lead to the detection of anomalous** behavior and potential illicit activities.

Agencies can disseminate this information through their networks and Command, Control, Communications (C3) and coordination centers, using service-oriented architecture to put permission-based controls on data access and shared displays to facilitate review and discussion. The end result: A common stakeholder picture and stronger, more informed decision-making across organizations.

The Rise of Open-Source Intelligence

Open-source intelligence is playing an increasingly important role in maritime security. Organizations are using it to analyze emerging social media trends for proactive planning, assess and contextualize threats to business operations, and gain insight into criminal workflows and alternative payment mechanisms.

With open-source intelligence tools like Global4Sight by Booz Allen Hamilton, agencies can leverage MDA and thought leadership to better equip their decision-makers with real-time, in-depth information.

In the Malacca and Singapore Straits region, such tools can augment efforts to—

- Conduct **due diligence** on shipping companies, vessels, crews, and contract staff
- **Identify** actors, motivations, and plots with the potential to disrupt shipping traffic
- **Track** regional and global perceptions of piracy and illicit trafficking in the straits
- **Monitor** civil unrest and activities that could disrupt Indonesian and Malaysian enforcement of maritime security obligations
- **Analyze** syndicates and networks to determine key actors, financiers, and destinations—and see who’s ultimately profiting from criminal activity in the straits.

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Empowered Response and Recovery

When an incident occurs, organizations need timely and accurate information to help them understand what happened, the extent of damage, and how best to recover. Efforts to obtain this information are already underway in the Malacca and Singapore Straits.

For augmenting response and recovery strategies and standard operating procedures, an organization responsible for maritime security may also benefit from—

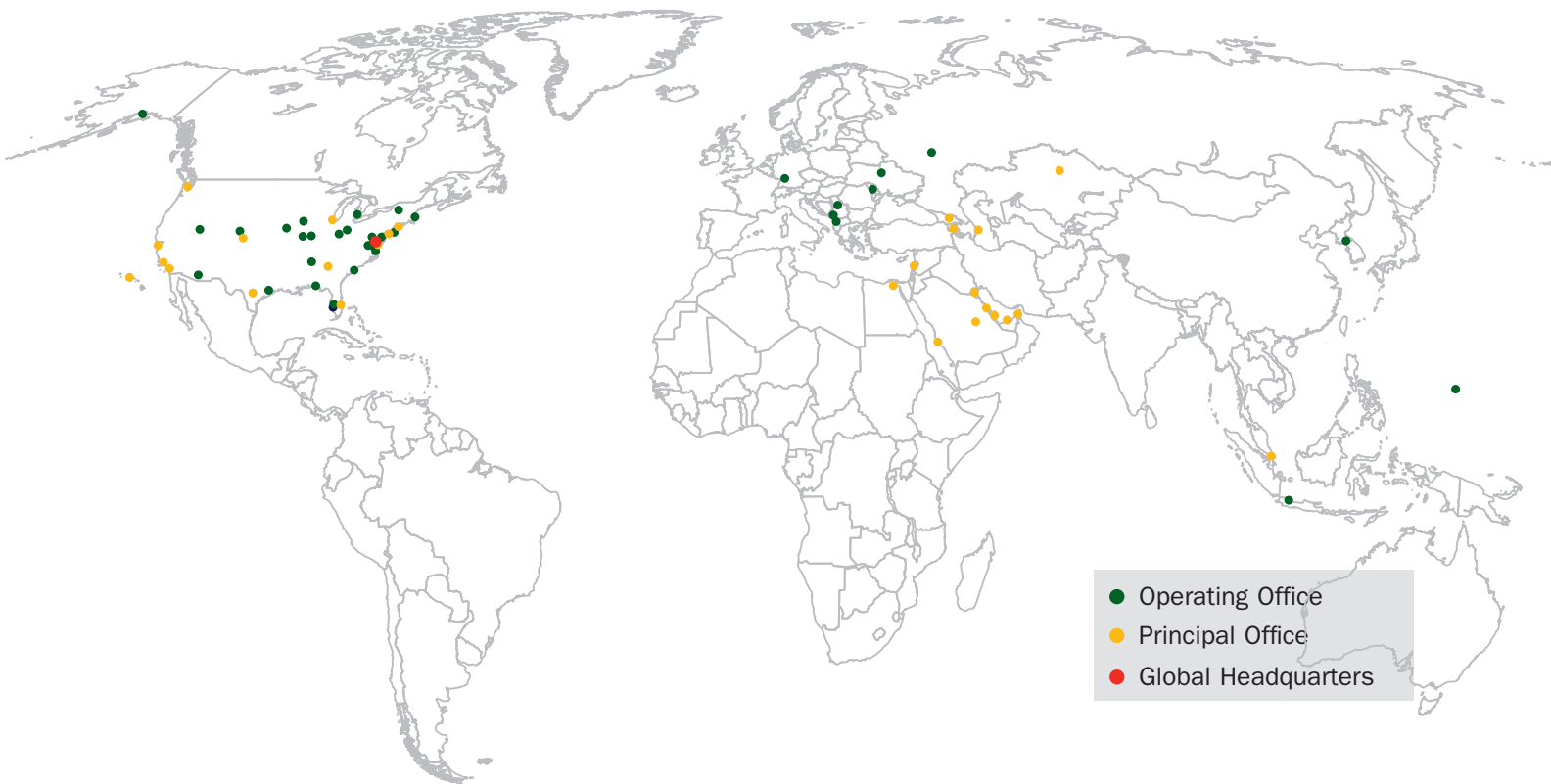
- A **custom-designed database** that delivers near-real-time data on disruptions and recovery efforts
- A **maritime infrastructure baseline** that enables post-incident assessment of impact
- **Recovery-focused exercises** (assessments, drills, wargaming) that use realistic and challenging scenarios to assess strengths and weaknesses, identify recurring problems and improvement opportunities, and collect feedback for stakeholders in areas such as capacity-building.

In Conclusion

As multiple threats continue to escalate in and around the Malacca and Singapore Straits, heightened MDA, open-source intelligence, and enhanced recovery and response can keep agencies in this vital region ahead of the curve.

Strong knowledge management, workflow, and stakeholder outreach will be key at every stage for generating buy-in and adoption. Yet it's an investment that can yield significant and lasting returns. With ongoing collaboration, coordination, evaluation, and transformation, agencies charged with maritime security will gain fresh insights into—and capabilities for—mitigating exposure, defending assets, and protecting human lives.

International Office Locations



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