



Canada's Maritime Domain Awareness Challenge

Canada's Challenge

Maritime Domain Awareness

– the effective understanding of anything associated with the maritime domain that could impact the **security, safety, economy, or environment of Canada**. This includes the **effective understanding of maritime-related activities, infrastructure, people, cargo, vessels, or other conveyances** on, under, related to, adjacent to, or bordering a sea, ocean, or other navigable waterway.



» Complex!

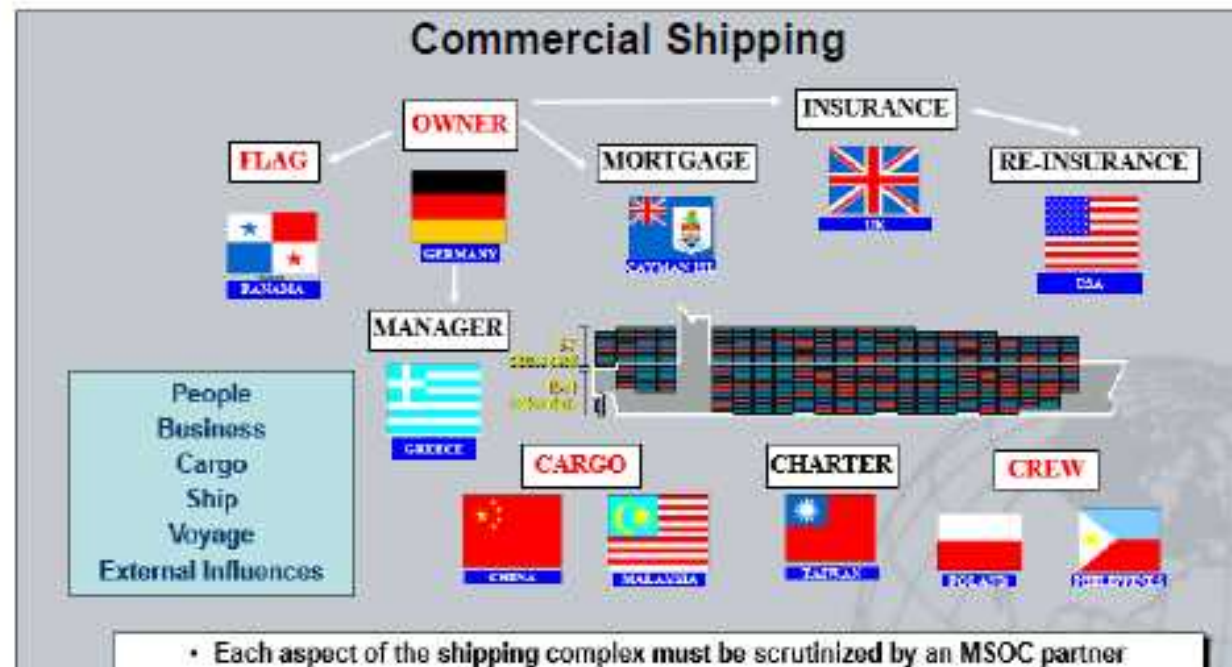
» From remote far north to densely populated Great Lakes Seaway

The MDA Challenge

- 99% of IMO vessels are compliant and trackable via AIS & LRIT
- The actual MDA challenge stems from dark targets

Dark Targets:

- Non-compliant vessels
- Pleasure crafts
 - Small Yachts
 - Sail Boats
 - Power Boats
- Fishing boats



The MDA Challenge

UNKNOWN INTENT (Positional Ambiguity)

North Atlantic

10000 – 12000 positions

850 – 1200 ships

Remove what can be explained – analyze
the remainder



REPORT

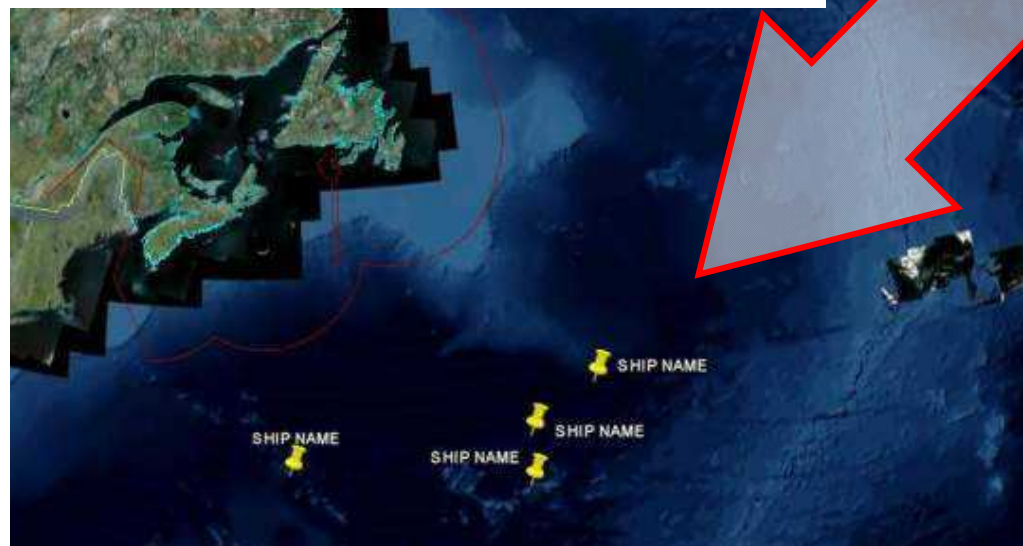
Positional ambiguities

Ships displaying unusual or economically
unsound behaviour

REACT

Initiate Partner analysis - resolve ambiguities

Warn if ambiguity persists



The key to MDA is detecting, then determining & confirming intent

Canada's response

The establishment of three Maritime Security Operation Centres

Halifax (East Coast and Arctic)

Victoria (West Coast)

Kingston (Great Lakes and St. Lawrence Seaway)

Purpose of the MSOCs

“To generate/disseminate accurate, coherent, relevant and timely situational awareness of the marine domain in order to assist in the detection and assessment of...a marine security threat”

- Strengthen co-ordination of marine security efforts
- Improve the tracking of vessels
- Enhance domestic and inter-agency cooperation and communications
- Strengthen the security for marine facilities and infrastructure

Maritime Interest Management Process



- Scrutiny of RMP
- Partner Interest
- External Interest
- Surveillance

- Define Interest, Requirements, Participants & Tasks
- Determine Communications & Reporting Strategy

- Interests are processed in accordance with direction of lead(s) partner(s)

Information Sharing

Mandate & Authority to collect & share information

Resources



DND

Sovereignty
National Defence



RCMP

Law Enforcement & National Security Mandate



CBSA

Integrated Border/Customs Services
Advanced passenger / crew information
Passenger/Crew/Goods information on arrival



TC

Marine Security Policy, Act and Regulations
Regulatory Enforcement / SOLAS requirements
Port State Control / Vessels Entering Canada



DFO

Enforce Fisheries, Oceans, & Species at Risk Acts
Marine/inland science, hydrography & fishing

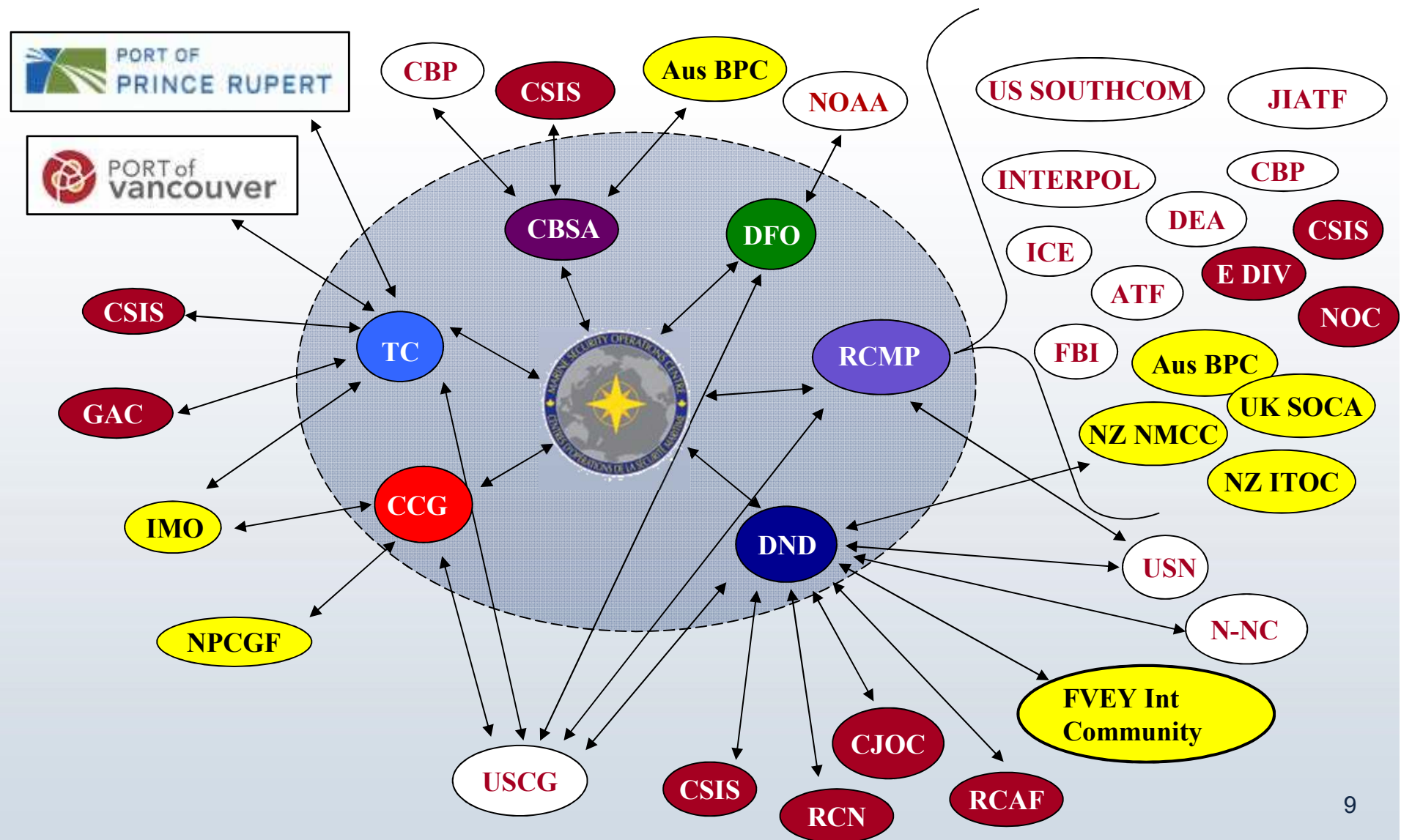


CCG

Oceans Act-Safety of Navigation
Canada Shipping Act-Surveillance and Response



Domestic & International Relationships





**MSOCs are nodes among a series
of maritime security nodes**

Value of MSOCs

- In any given month the coastal and Great Lakes MSOCs:
 - identify more than 90 Maritime Interests Cases
 - routinely share information and foster collaboration
 - monitor approximately 30,000 vessels;
 - screen more than 700 vessels entering Canadian waters;
 - respond to some 30 formal Requests for Information from other partners; and
 - produce approximately 25 intelligence reports
- MSOCs work closely with US and other International partners (e.g. USCG) to identify potential threats and enhance MDA to support coordinated international response activities.

CAF - Canadian Joint Operation Command

Regional Surveillance Zones

Mission

- Plan, coordinate, and conduct routine and contingency domestic surveillance and control operations within the Canadian domestic area of responsibility in order to enhance CAF domestic awareness

All Domain Awareness

- DND - Maritime (via MCC) and Land (via RJTFs)
- NORAD - Aerospace;
- CANSpOC - Space;
- DG Cyber - Cyberspace; and

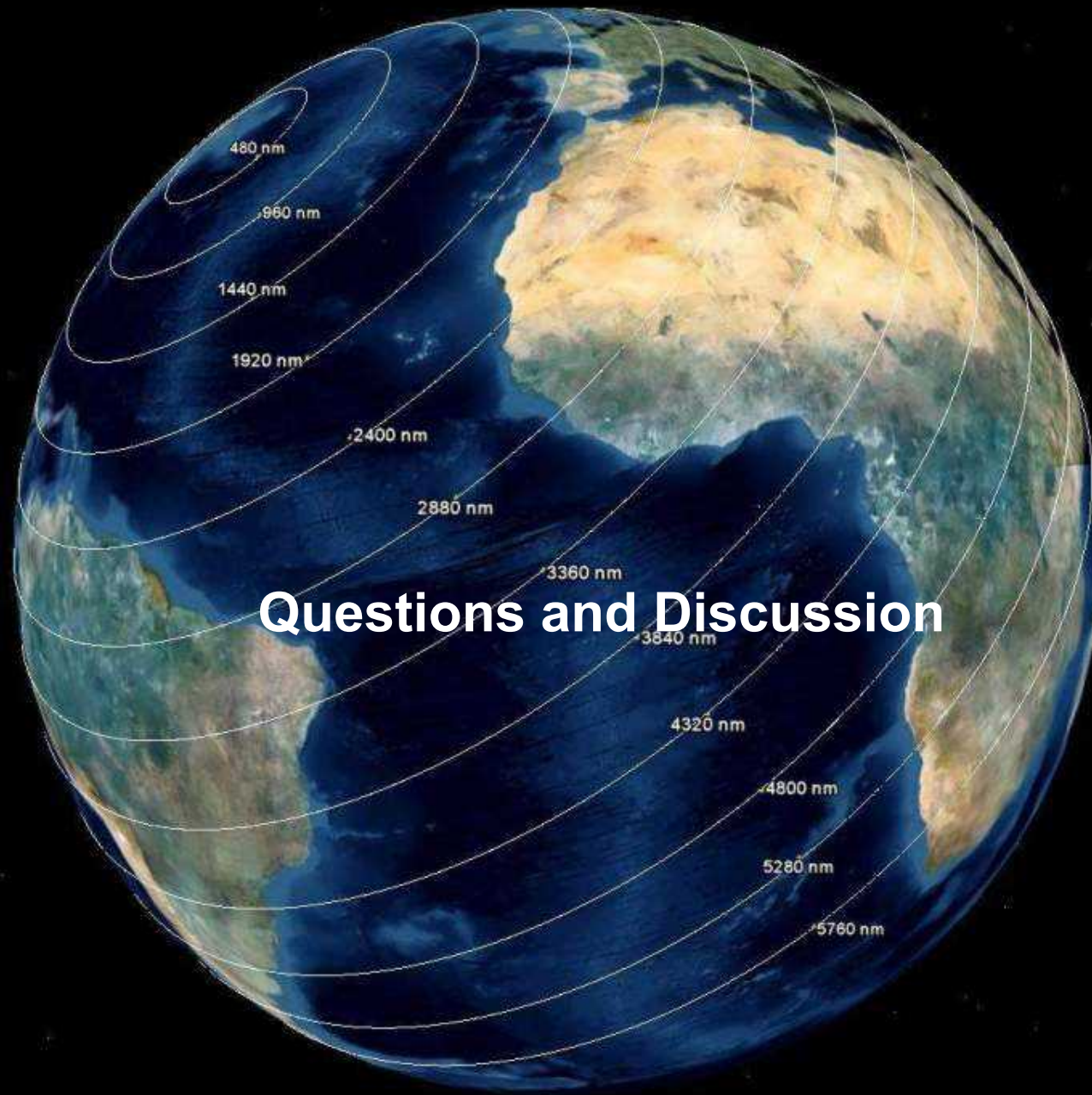


Assets Leveraged for Surveillance & Control Maritime and Land

Air Based	CAF
	Contracted Air
	Other Government Departments
Maritime Based	HMC Ships/ CCG USN/ USCG NORAD
Land Based	CA & Rangers Coastal AIS Community Based
Space Based	AIS

Mission Priority

- 1) Defence of Canada
- 2) Defence of North America



Questions and Discussion