



Info Brief on Canadian Armed Forces Search and Rescue (SAR) in Canada



Agenda



- History
- Mission
- Area of Responsibility AOR
- Current Canadian structure
- Current DND/CAF support
- Air/Maritime Response
- Arctic perspective
- International support to SAR
- Questions





History



- Pre-WWII : Ad Hoc SAR system.
- Post-WWII: 1944 Convention on International Civil Aviation
- 1947: Cabinet Direction – RCAF to establish Aeronautical SAR service
- 1951: Maritime SAR coordination and air response added to RCAF mandate
- 1960: Canadian Coast Guard (CCG) formed
- 1976: Federal Interdepartmental Committee on SAR (ICSAR) formally established
- 1986: National Search and Rescue Secretariat (NSS) established under the Department of National Defence (DND)
- 2015: NSS becomes part of Public Safety
- 2017: Strategic Joint Staff take the lead for Canadian Armed Forces (CAF) governance of SAR



Mission



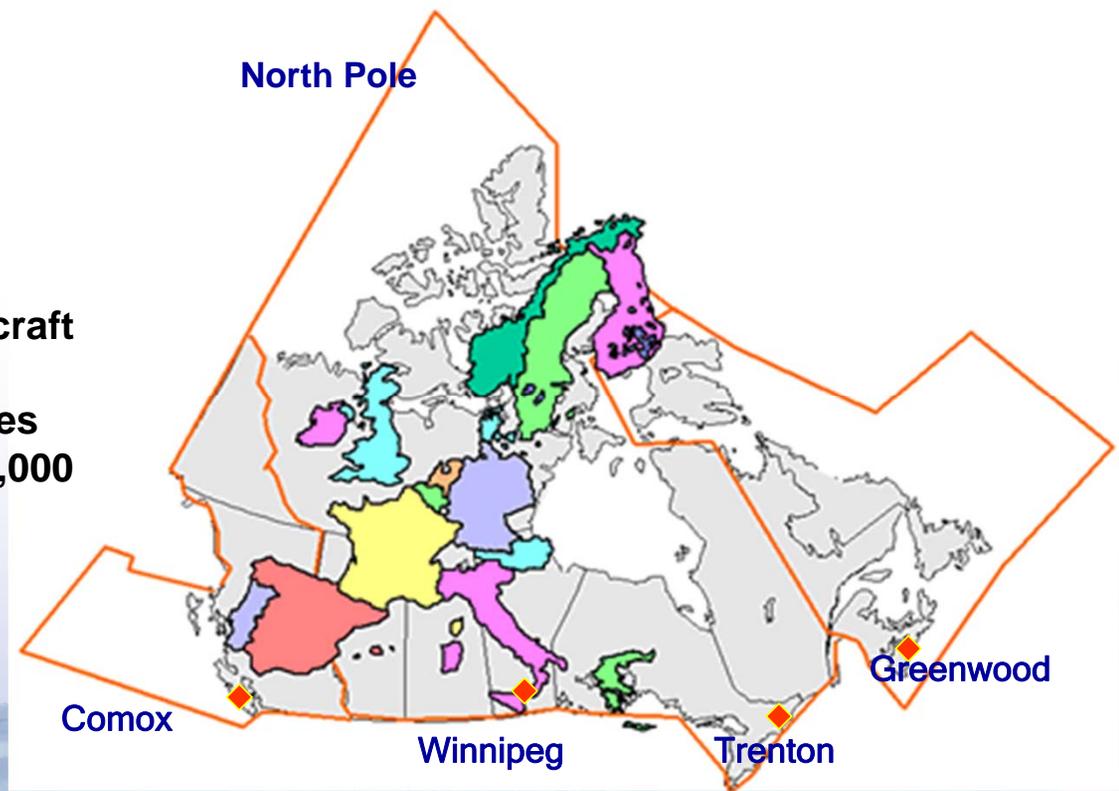
To support the National Search and Rescue Program (NSP) for the provision of aeronautical SAR services and effective operation of the coordinated aeronautical and maritime SAR system with a view to save lives and reduce human suffering



The Canadian Area Of Responsibility



- **Canada's SAR Area of Responsibility (AOR)**
18,000,000 km²
longest coastline in the world
- **Greater than 35000 aircraft**
48000 commercial marine vessels
2.2 million small boats and pleasure craft
- **The Joint Rescue Coordination Centres (JRCCs) prosecute an average over 9,000 SAR cases annually.**



3,335 miles / 5,336 km

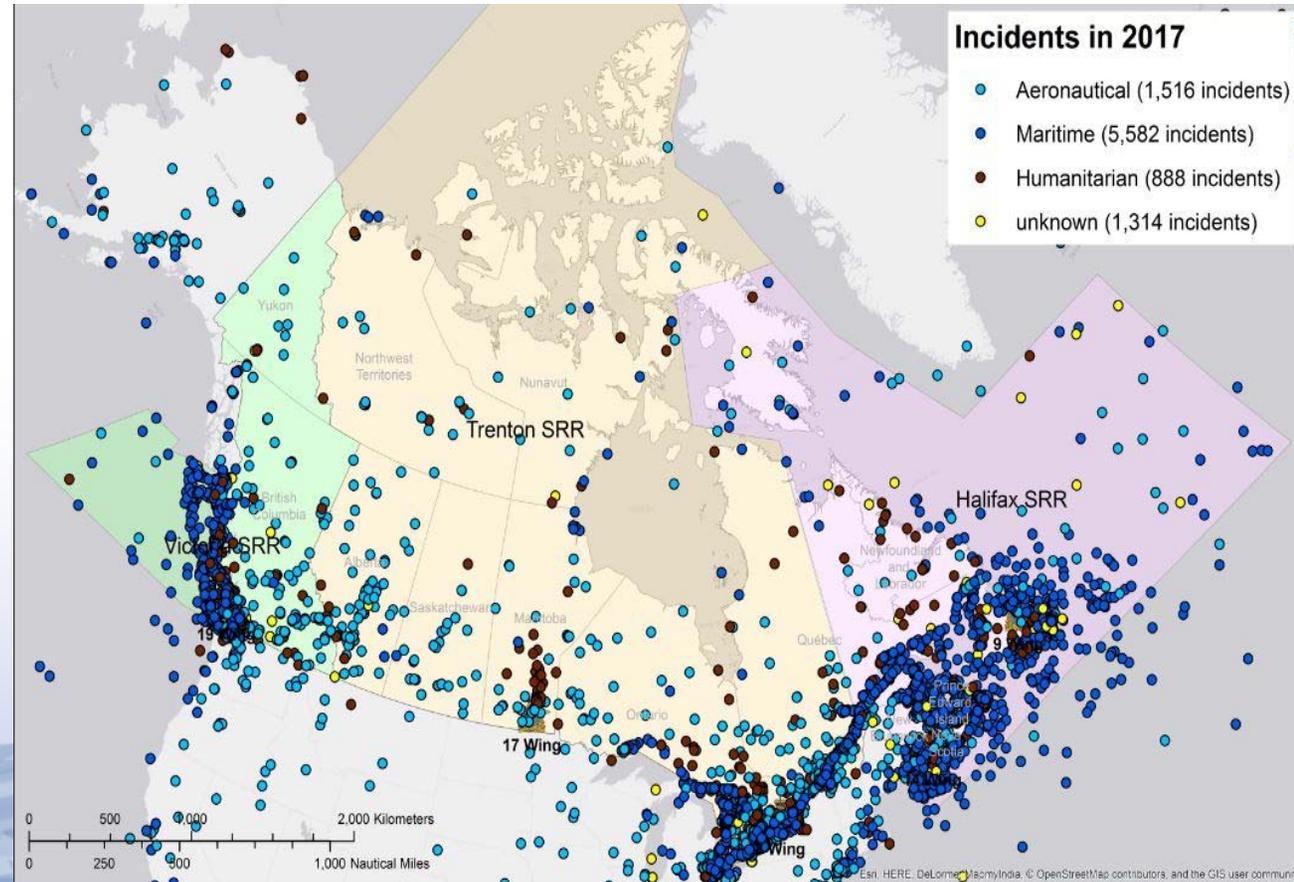
4,508 miles / 7213 km



SAR incident distribution

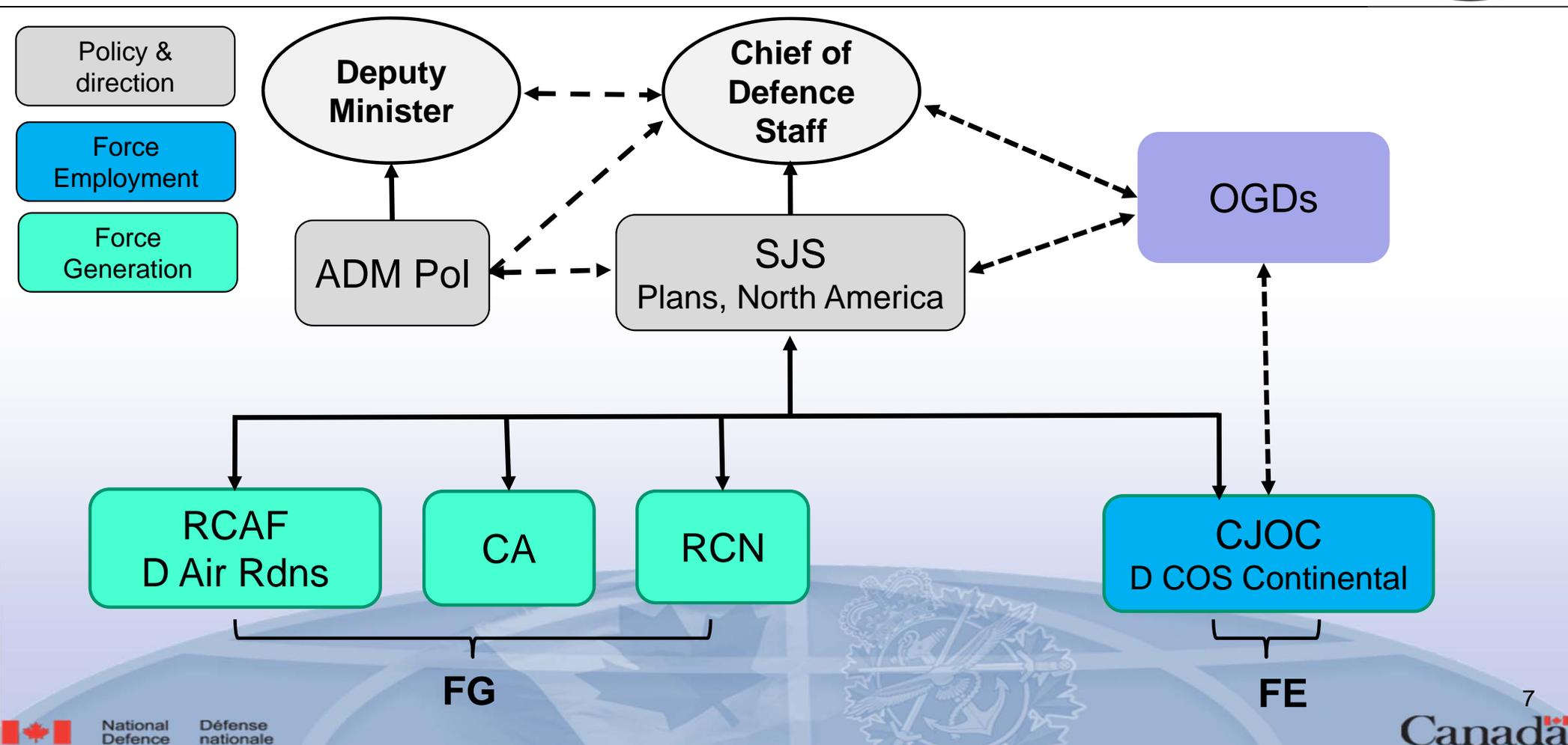
Approximately 80%
Canada's 36.8 million
people are concentrated
along our southern border

The distribution of SAR
incidents coincides with
the population density
and marine activities





DND/CAF Internal Governance Structure





Interdepartmental Committee SAR Key Organizations and Responsibilities



- **Canadian Armed Forces (entire AOR)**
 - Effective **Operation of the Coordinated** Aeronautical and Maritime SAR system
 - Provision of aeronautical SAR **response** services*.
- **Canadian Coast Guard (federal areas of responsibility)**
 - **Coordination** of response to Maritime SAR incidents
 - Provision of maritime **response** resources (federal waterways)
- **Environment Canada**
 - Meteorological **Support**, warnings and environmental considerations
- **Royal Canadian Mounted Police (where contracted)**
 - **Coordination** of **response** for Ground SAR incidents (Provincial/Territorial jurisdictions)
- **Parks Canada (federal parks and reserves)**
 - **Coordination** of **response** for users within National Parks/Reserves
 - Provision of response **resources and prevention** activities
- **Public Safety and Emergency Preparedness Canada**
 - **Coordination** of the National **SAR Program**, development of the National **SAR Frame-Work** and **Federal Government policy**
- **Transport Canada (aeronautical and maritime)**
 - regulatory, enforcement and **prevention programs**

• * REF: CAMSAR Vol I, 1.06.1



All of Government SAR Response Agencies

Federal

Aeronautical

Lead: Department of National Defense (DND)

Primary Response: Royal Canadian Air Force (RCAF)

Secondary Response: All other Federal assets, Civil Air Search and Rescue Association (CASARA), contracted resources, and volunteers on request

Maritime

Lead: Department of Fisheries and Oceans (DFO)

Primary Response: Canadian Coast Guard (CCG)

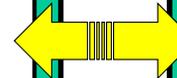
Secondary Response: All other Federal assets, Canadian Coast Guard Auxiliary (CCGA), contracted resources, and volunteers on request.

Provincial/Territorial

Inland SAR (GSAR)

Lead: Provinces, Territories, Municipalities

Response: Emergencies Measures Organizations, Royal Canadian Mounted Police (RCMP), Ontario Provincial Police (OPP), Sûreté du Québec (SQ), Ground Search and Rescue (GSAR) Volunteers, other organizations, contracted services, Federal resources on request.



Public Safety Canada

Lead: National Search and Rescue Secretariat (NSS)

Role: Coordination of the National Search and Rescue Program (NSP)



CAF SAR Responsibilities



• Operation of the Coordinated SAR System

- Provide and operate the JRCCs, CMCC and other SAR installations in conjunction with the CCG to:
 - Receive and interpret distress alerts/notification;
 - Assess requirements;
 - Develop response plan (identify closest and most suitable resources).



• Provision of Aeronautical Response (Resources)

- Provide the resources to operate the Canadian component of COSPAS-SARSAT
- Provide Search and Rescue Units as tasked by JRCC Coordinator to:
 - Locate the incident (search);
 - Stabilize the situation;
 - Recover survivors to nearest suitable location of safety.



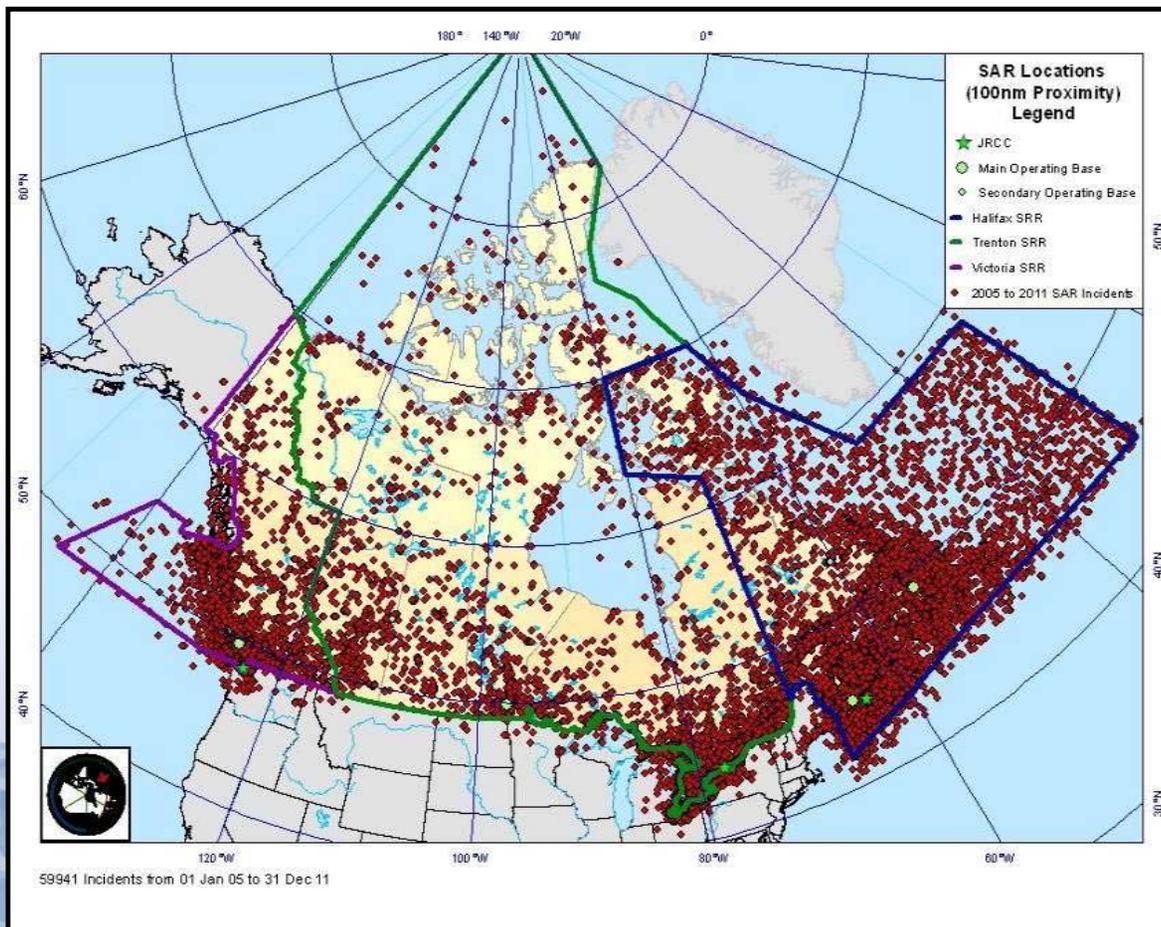


Location of Federal SAR Assets



- 2006 – 2014 Trend
- Assets are currently positioned to respond to the greatest number of cases in the least amount of time.
- Based on historical distribution
- 90% of incidents are reachable within 4 hours of tasking.
- 100% of incidents are reachable within 11 hours of tasking*

* Furthest point in the AOR is the North Pole at 2700nm from Winnipeg MOB



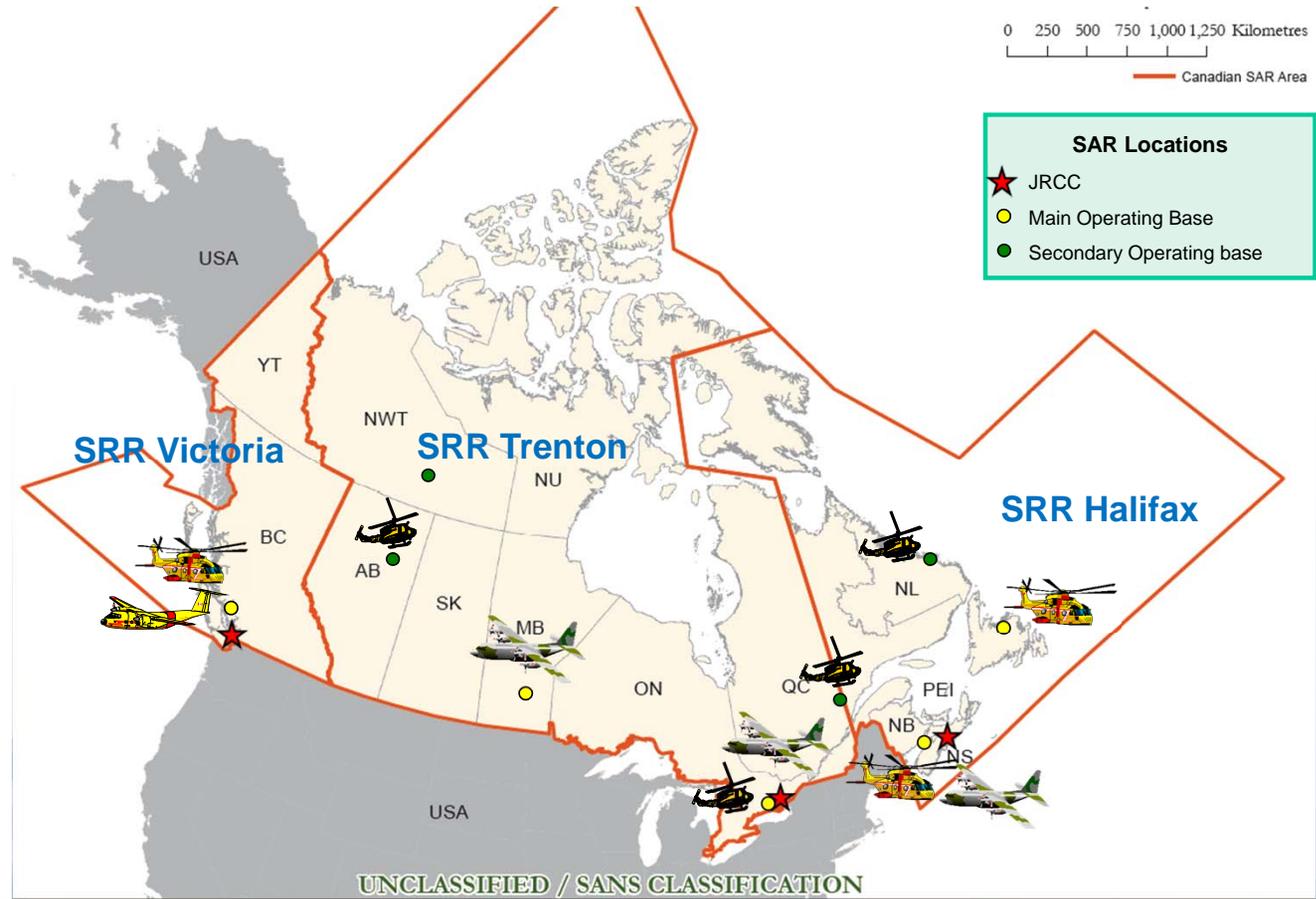


Aviation SAR Units

Primary Search and Rescue Units (SRUs) are available 24/7/365

Aeronautical SRU hold a 30 minute response posture during normal working hours (40 hrs/week) and a 2 hour response posture during the remaining period.

MAJAID 12 hour notice to move

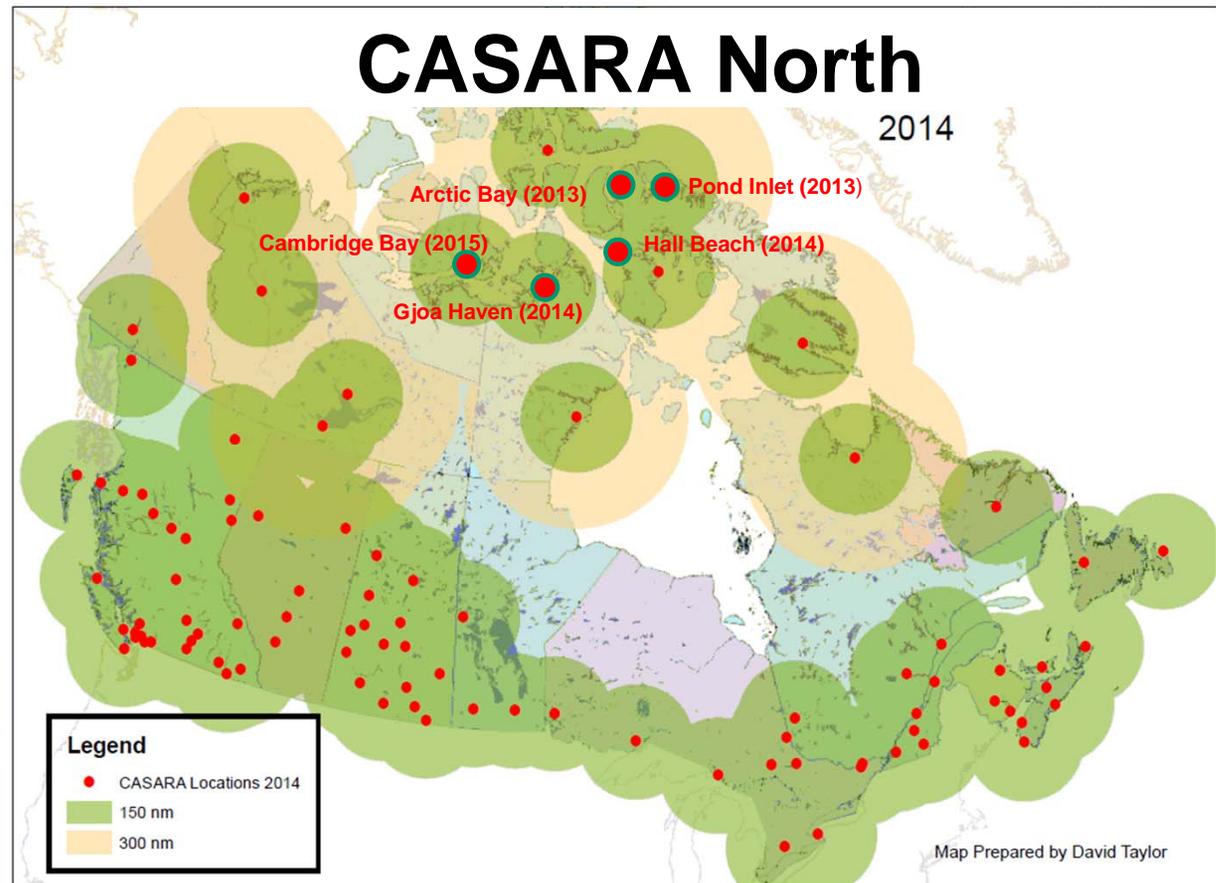




Civil Air Search and Rescue Association

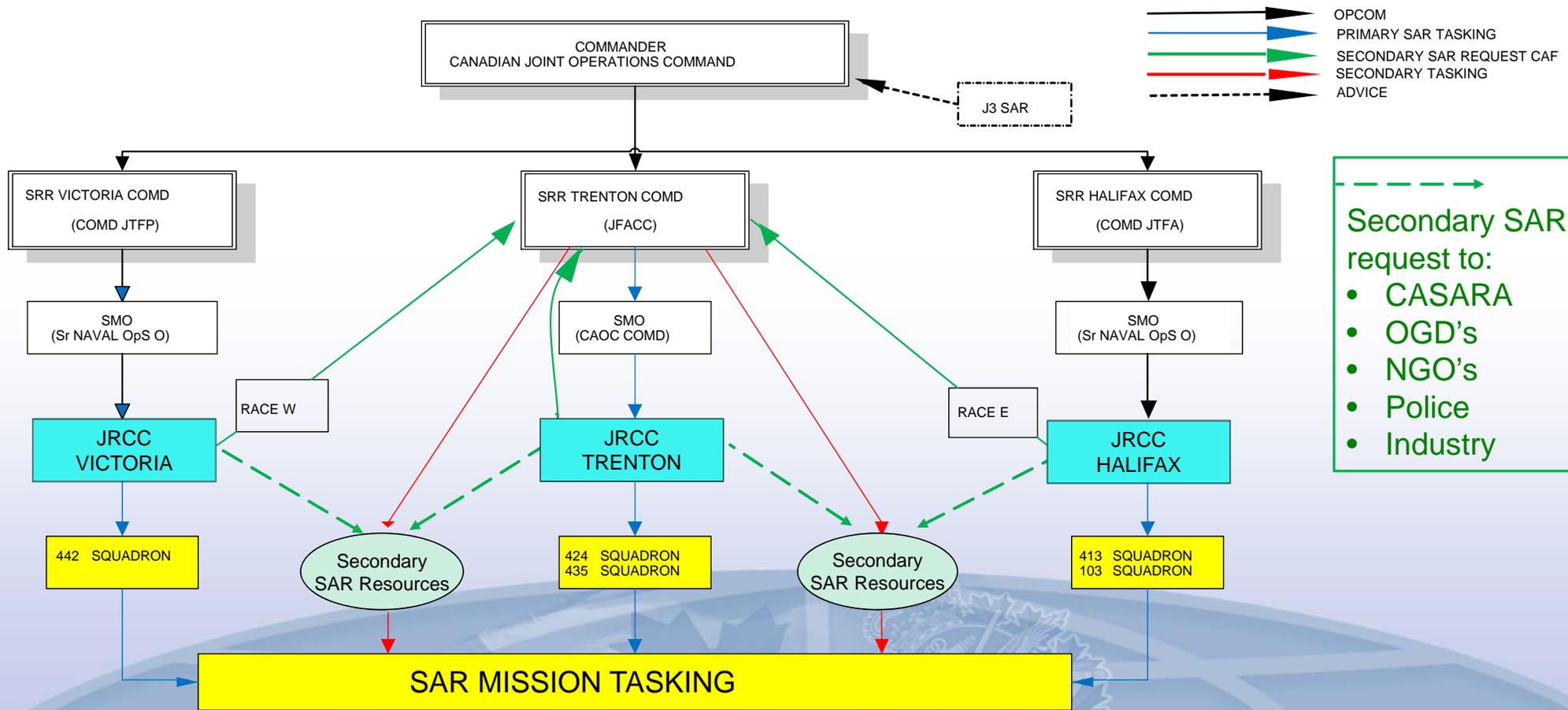


- Recently expanded into the North
- Employ Arctic-based aircraft, operators, experience and through this local knowledge brings new capabilities for Search and Rescue in a timely manner.
- To aid in the rescue and recovery functions the commercial aircraft and professional crews are able to drop a Small Pack Aerial Rescue Kit (SPARK) which was developed by CASARA to provide short term survival, sustainment and communications





AERONAUTICAL COMMAND & CONTROL



Secondary SAR request to:

- CASARA
- OGD's
- NGO's
- Police
- Industry

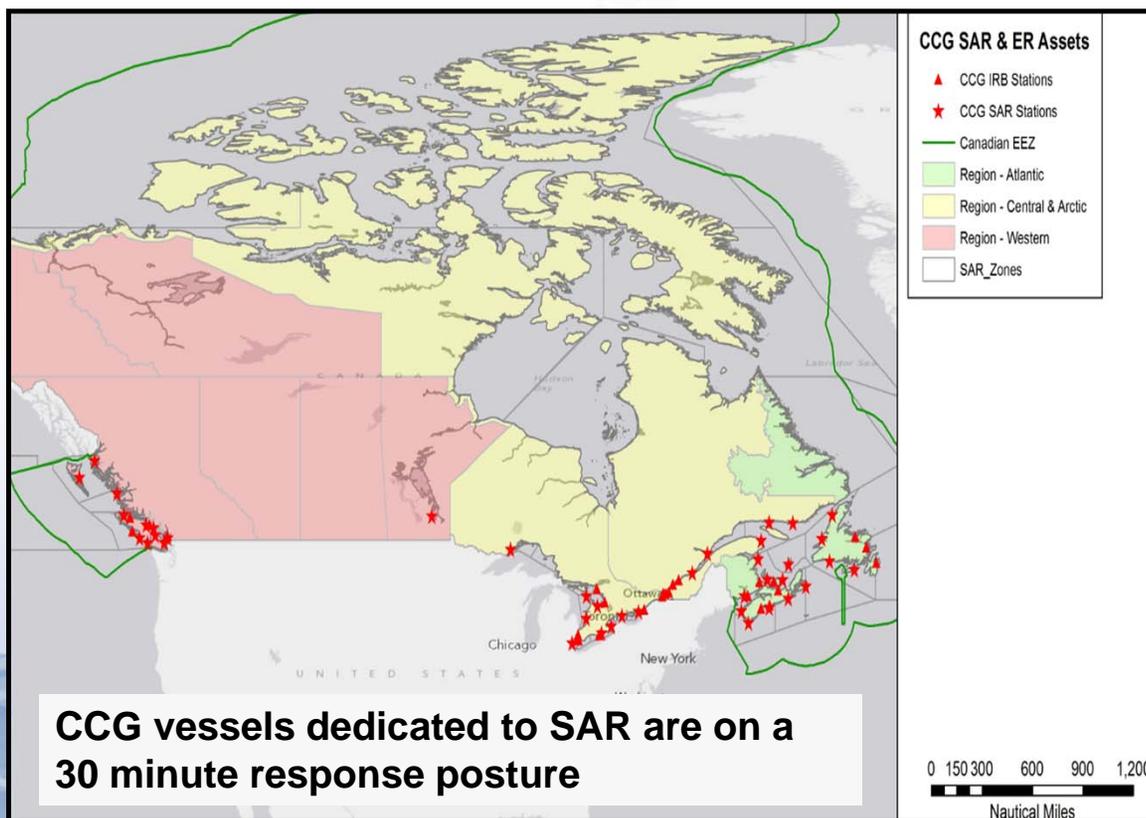


Canadian Coast Guard



The CCG Fleet Consists of:

- 114 vessels
- 22 helicopters
- 1 Hovercraft
- 40 SAR Stations
- 25 Inshore Rescue Boats



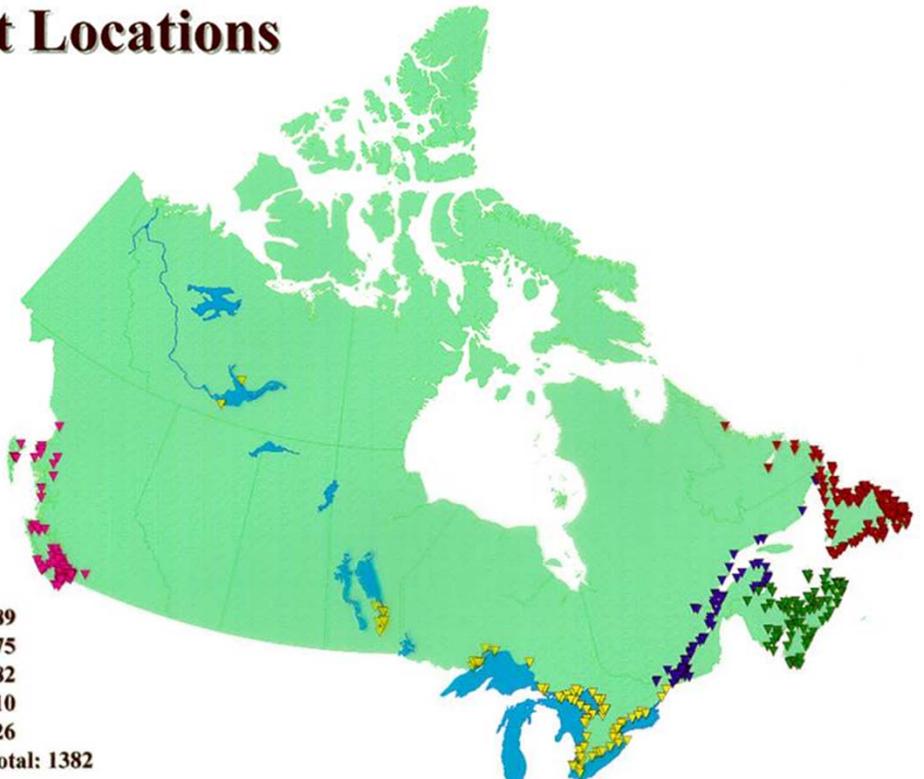


Canadian Coast Guard Auxiliary



- Founded in 1978
- Over 4000 members
- 1100+ vessels
- Respond to approximately 25% of the approximate 6,000 marine SAR incidents in Canada annually

CCGA Asset Locations



| | |
|-------------------------|-------------|
| ▼ Newfoundland CCGA | 389 |
| ▼ Maritimes CCGA | 475 |
| ▼ Laurentian CCGA | 182 |
| ▼ Central & Arctic CCGA | 110 |
| ▼ Pacific CCGA | 226 |
| Total: | 1382 |



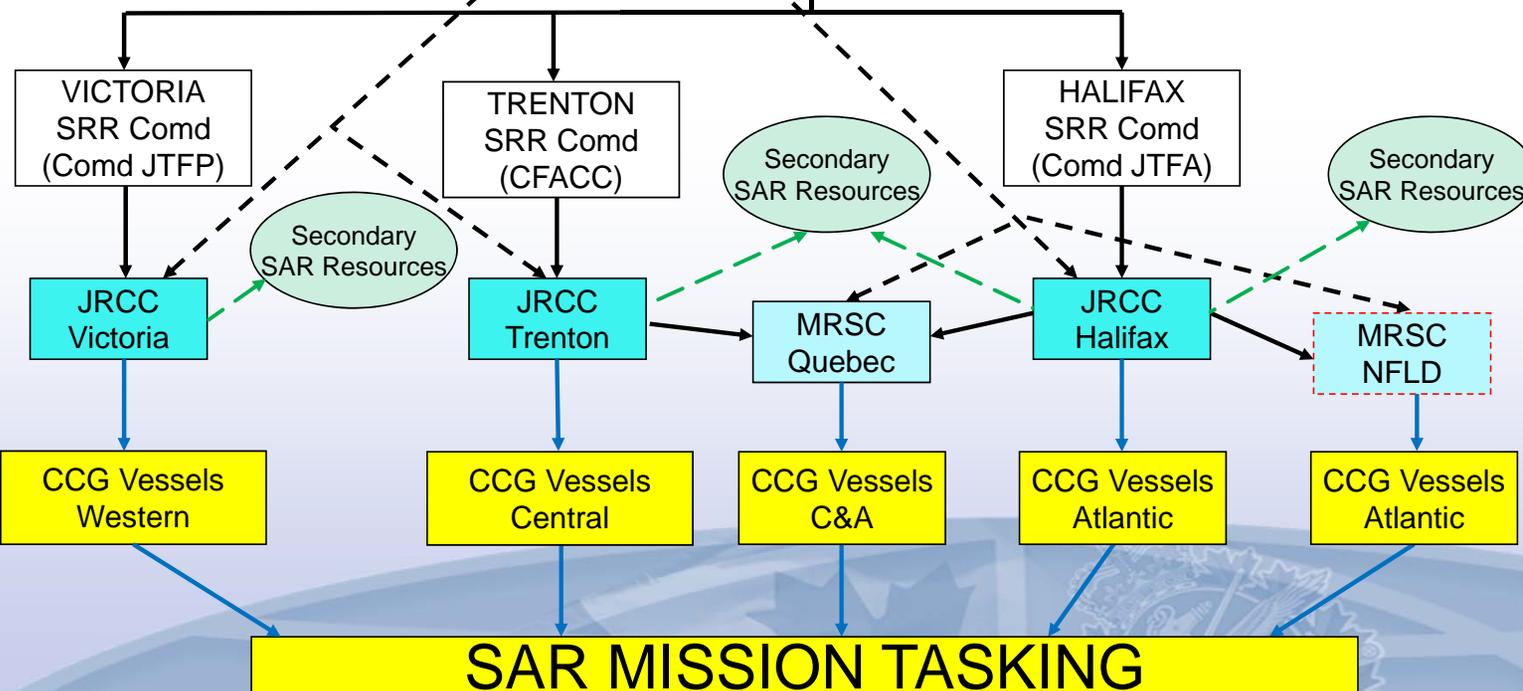
Command and Control Maritime



Canadian Joint Operations Command (CJOC)

Dept of Fisheries & Oceans
Canadian Coast Guard

 SAR Task
 OPCOM
 ADVICE



 **Secondary SAR request to:**

- CCGA
- OGD's
- NGO's
- Police
- Industry

Additional CCG Vessel are requested through the CCG Regional Operations Centre



Geography

North of 60

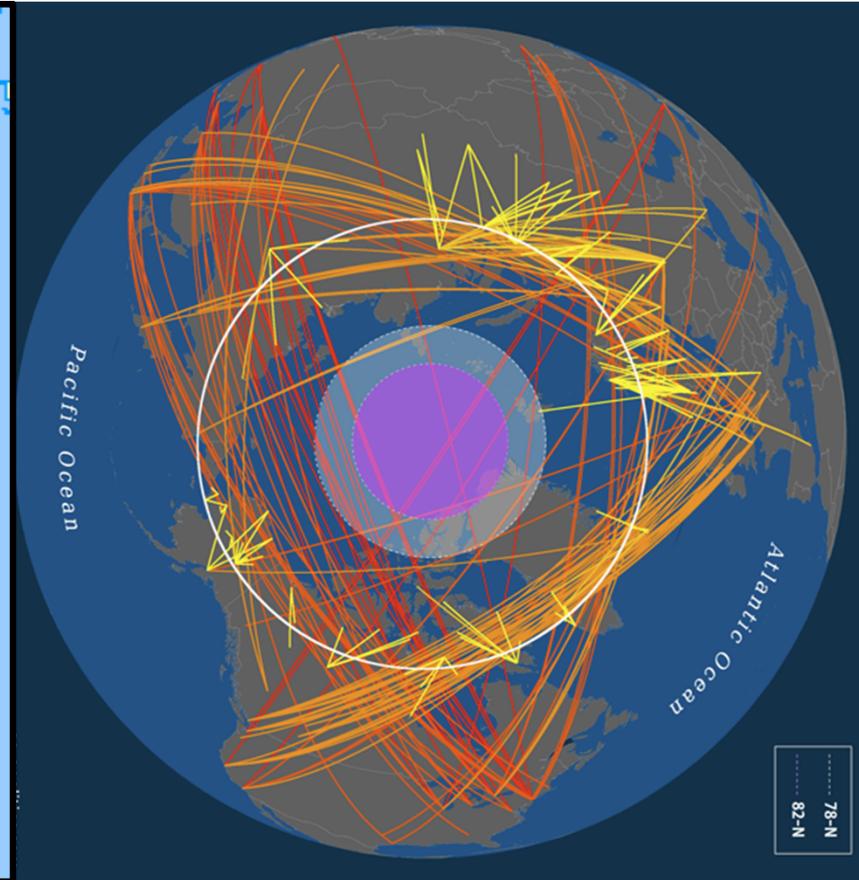
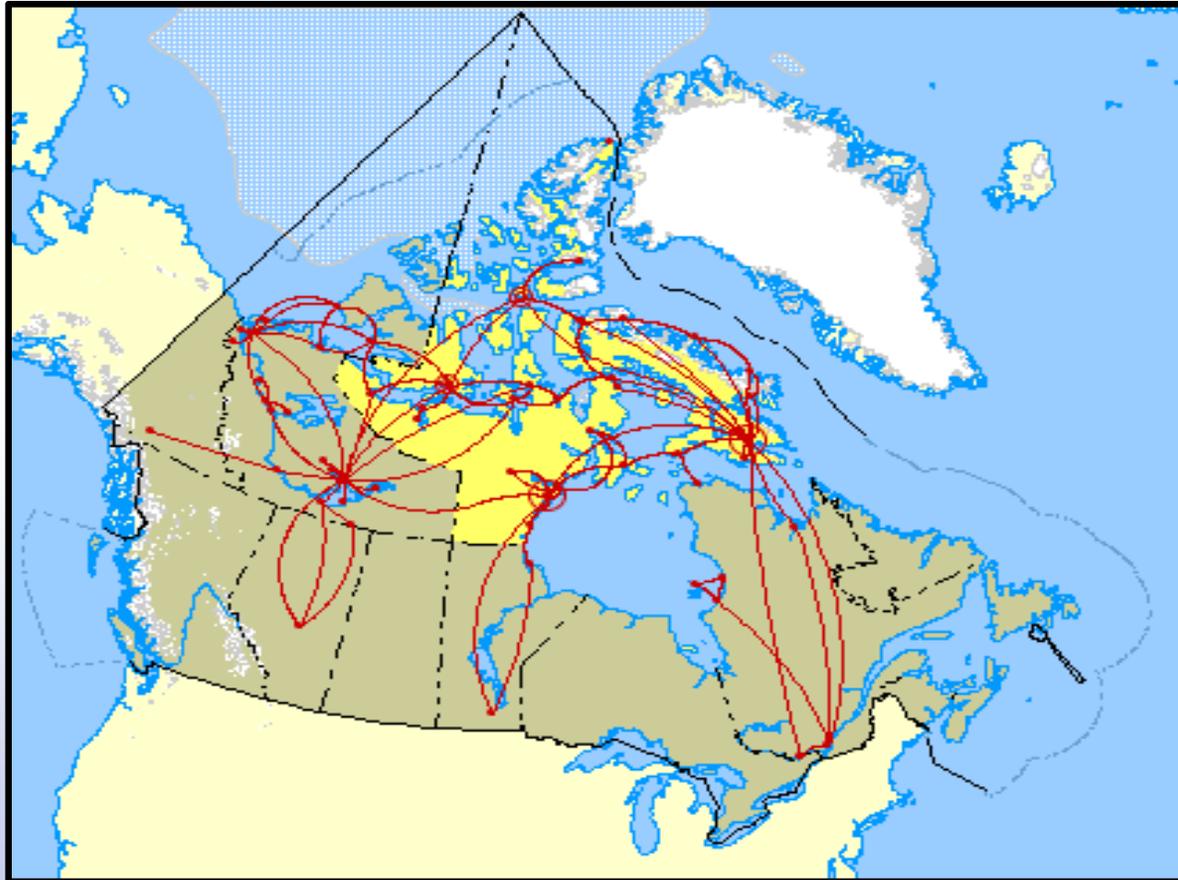
-The North represents 40% of Canada's land mass

-The approximate 114000 inhabitants result in a population density in Canada's North is 0.03 inhabitants per km²





Arctic Air Traffic





Northern Contingency





MAJAID



- Total kit designed to support 320 casualties;
- First MAJAID Load airborne 12 hours;
- Designed for scalable response;
- Rigged for aerial delivery from CF tactical airlift Squadrons;
- Contains tents, heaters, generators, clothing, sustenance to set up forward base;
- First load includes ARGO all terrain vehicle.



Arctic Caches

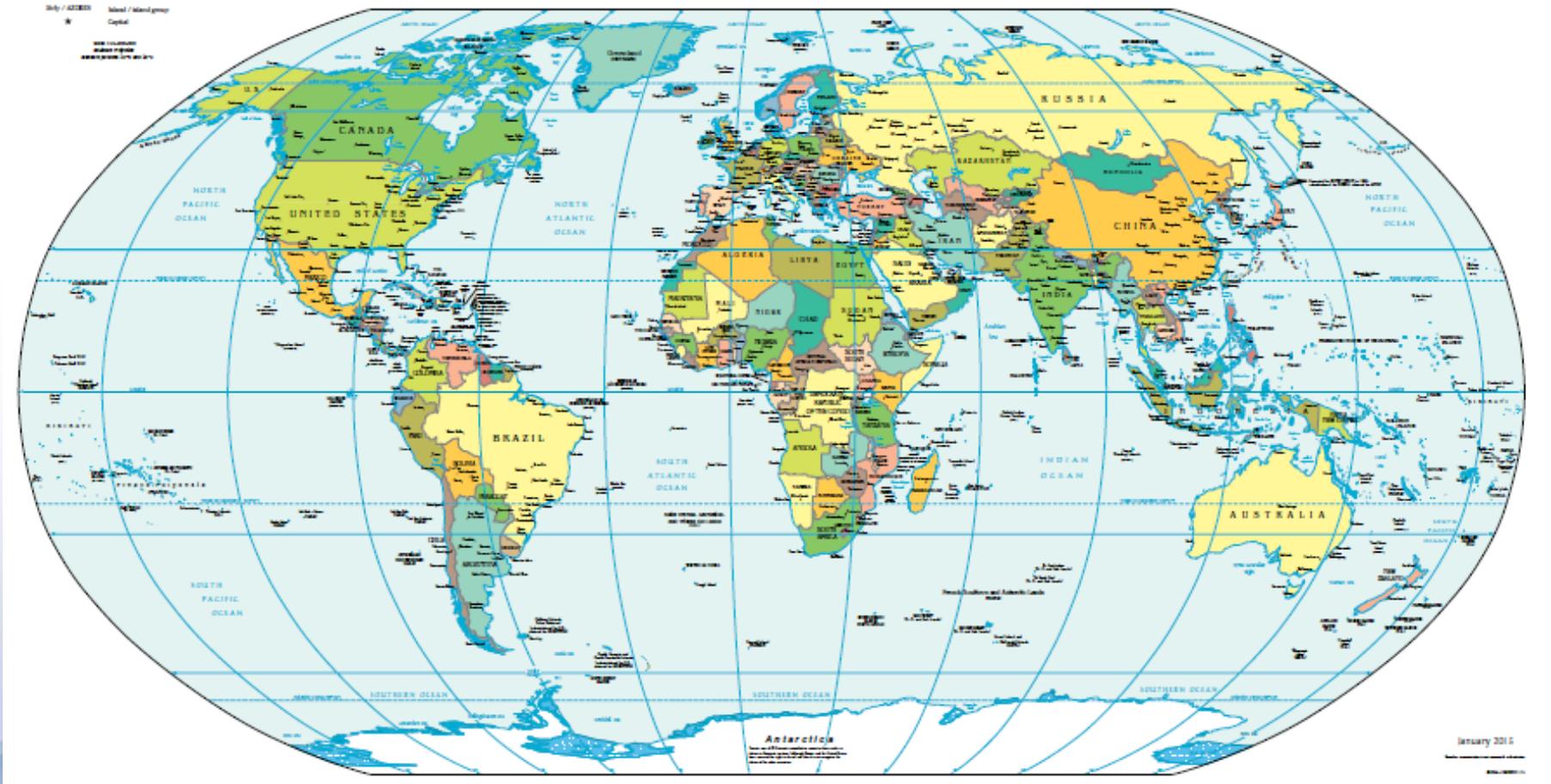


★ Caches of clothing kits (210) & sleeping bags (90) available on JRCC request, to assist mass search/casualty operations.



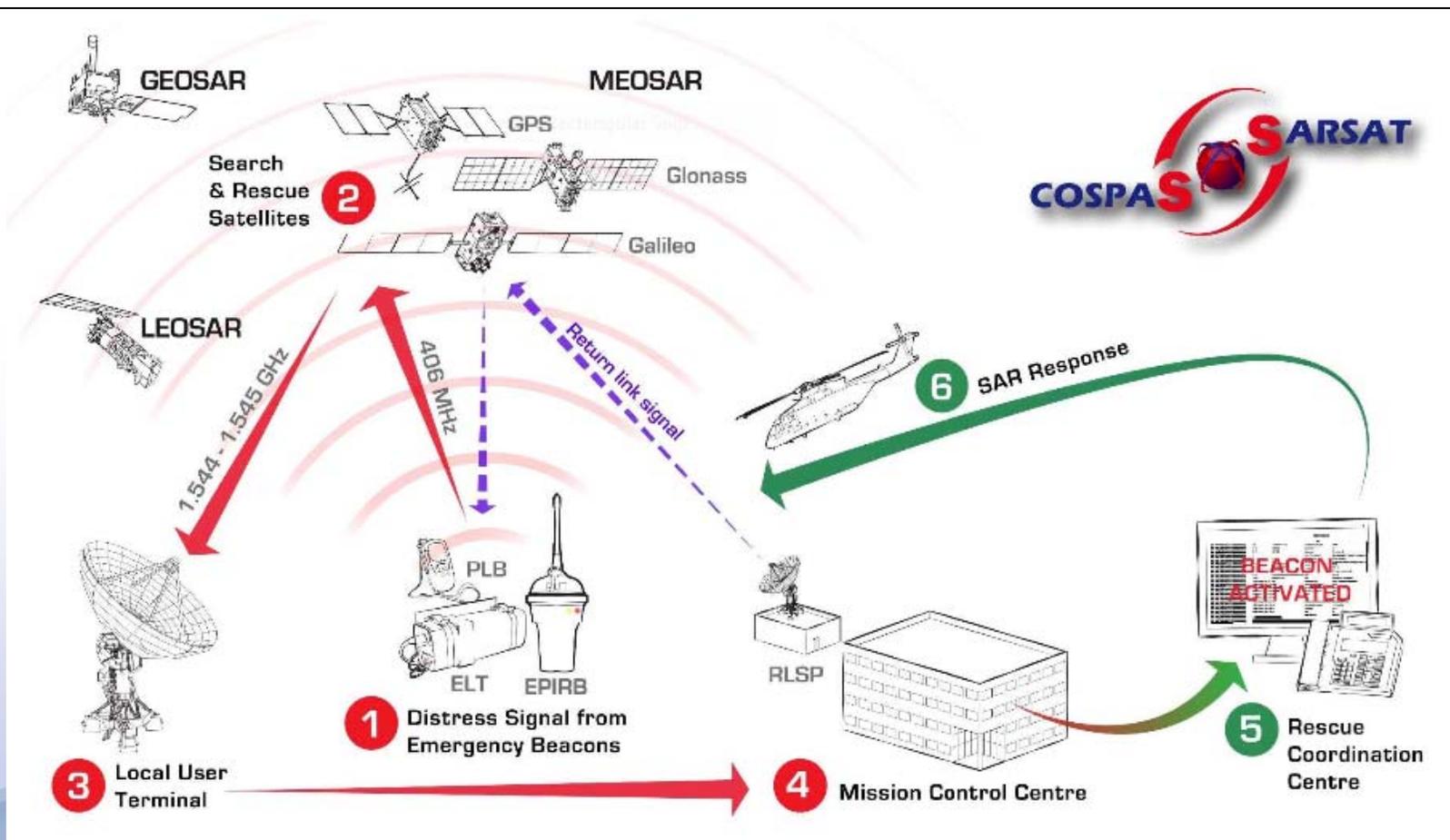


International Support to SAR



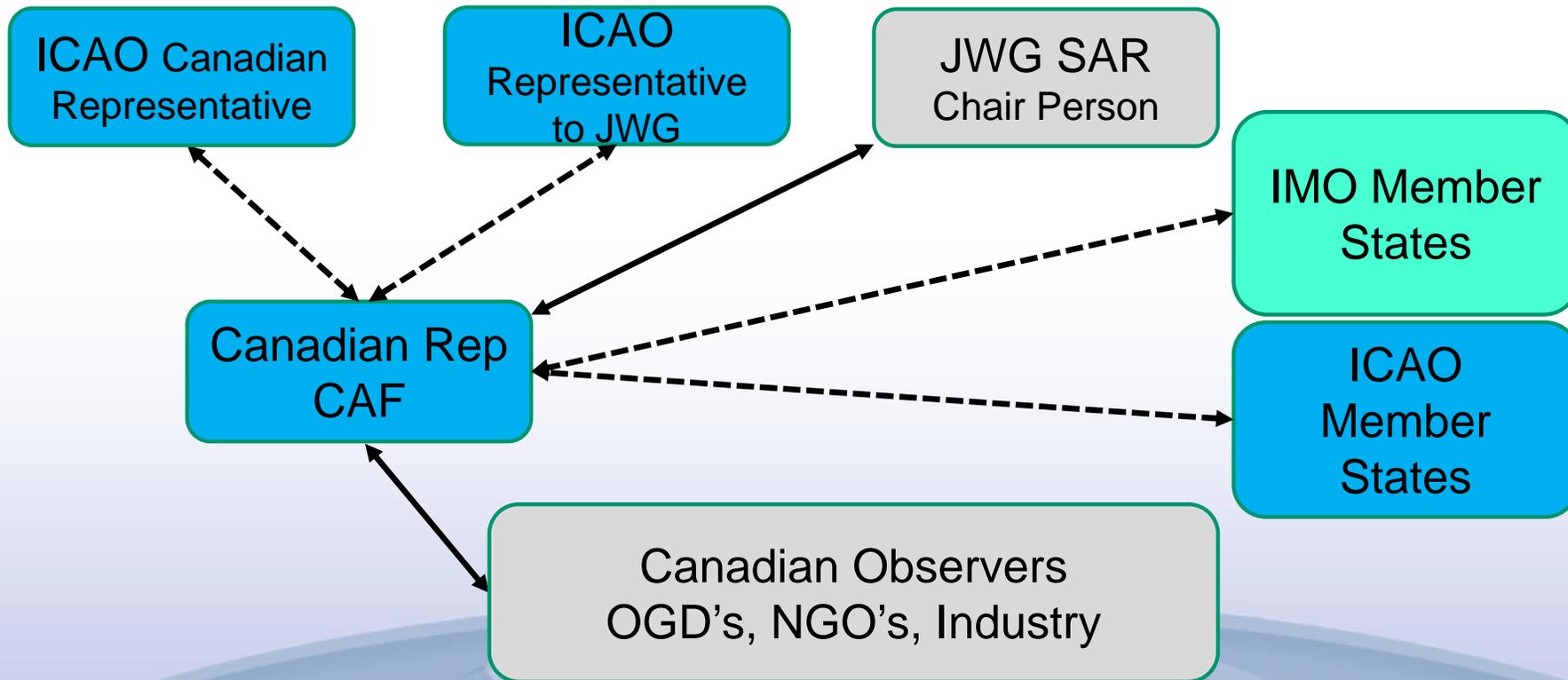


COSPAS - SARSAT





ICAO/IMO JWG SAR





Arctic Council



Support to The Emergency Prevention, Preparedness and Response Working Group (EPPR)

- Providing subject matter expertise to the Search and Rescue Experts Group
- Specific focus on the Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic 2011





Questions?

