

Search and Rescue in the Antarctic

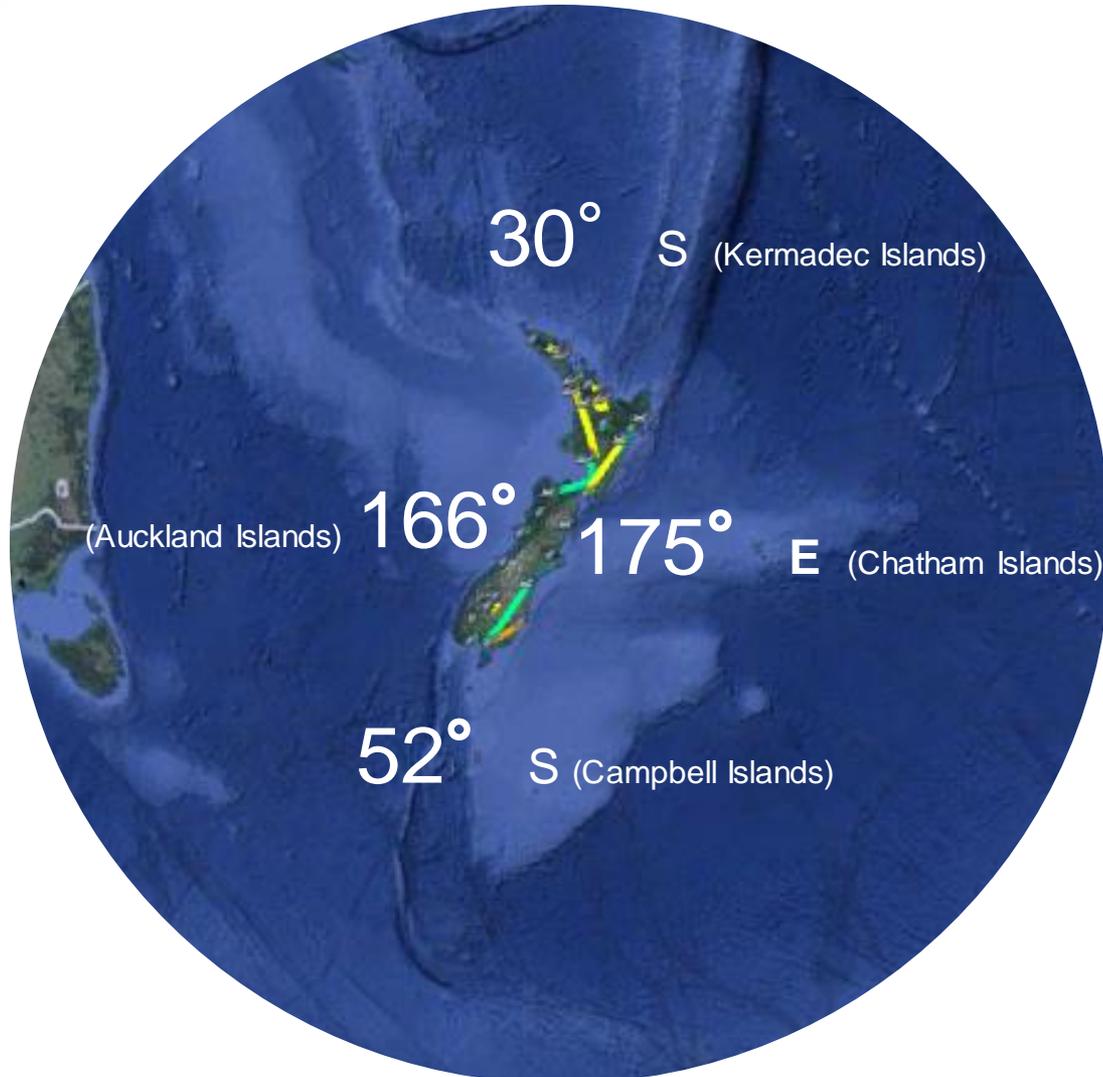
Barbara Hickey, Chris Wilson & Greg
Johnston



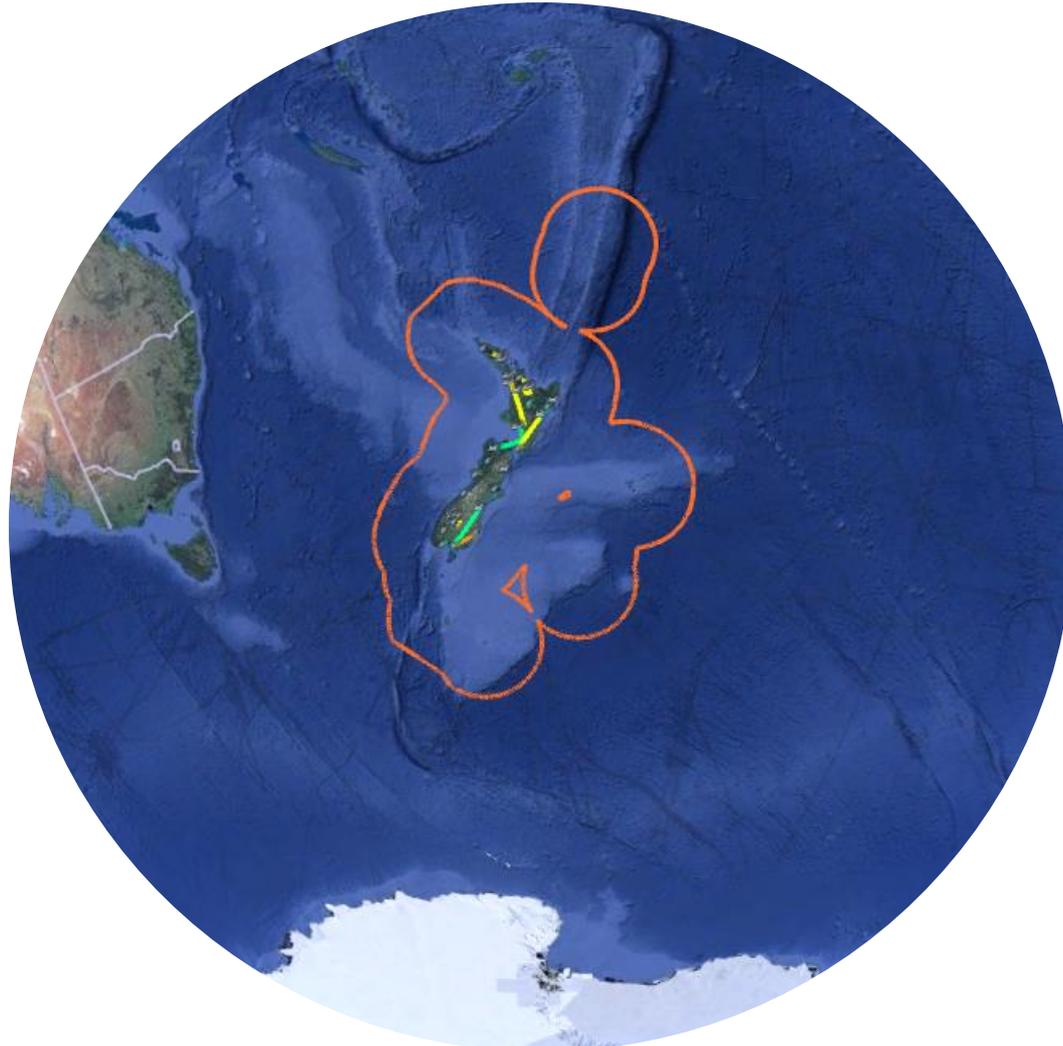
CONTEXT



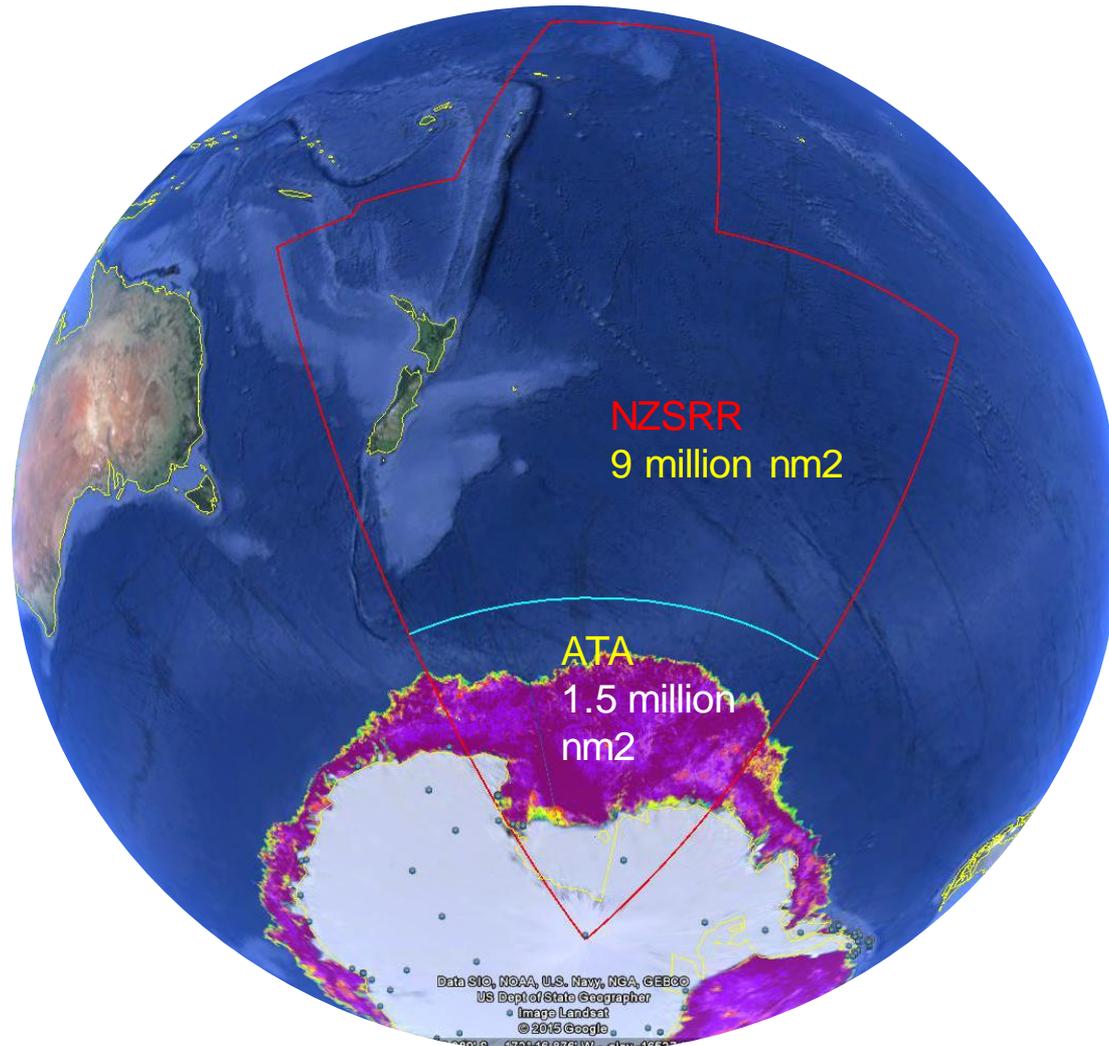
Aotearoa New Zealand

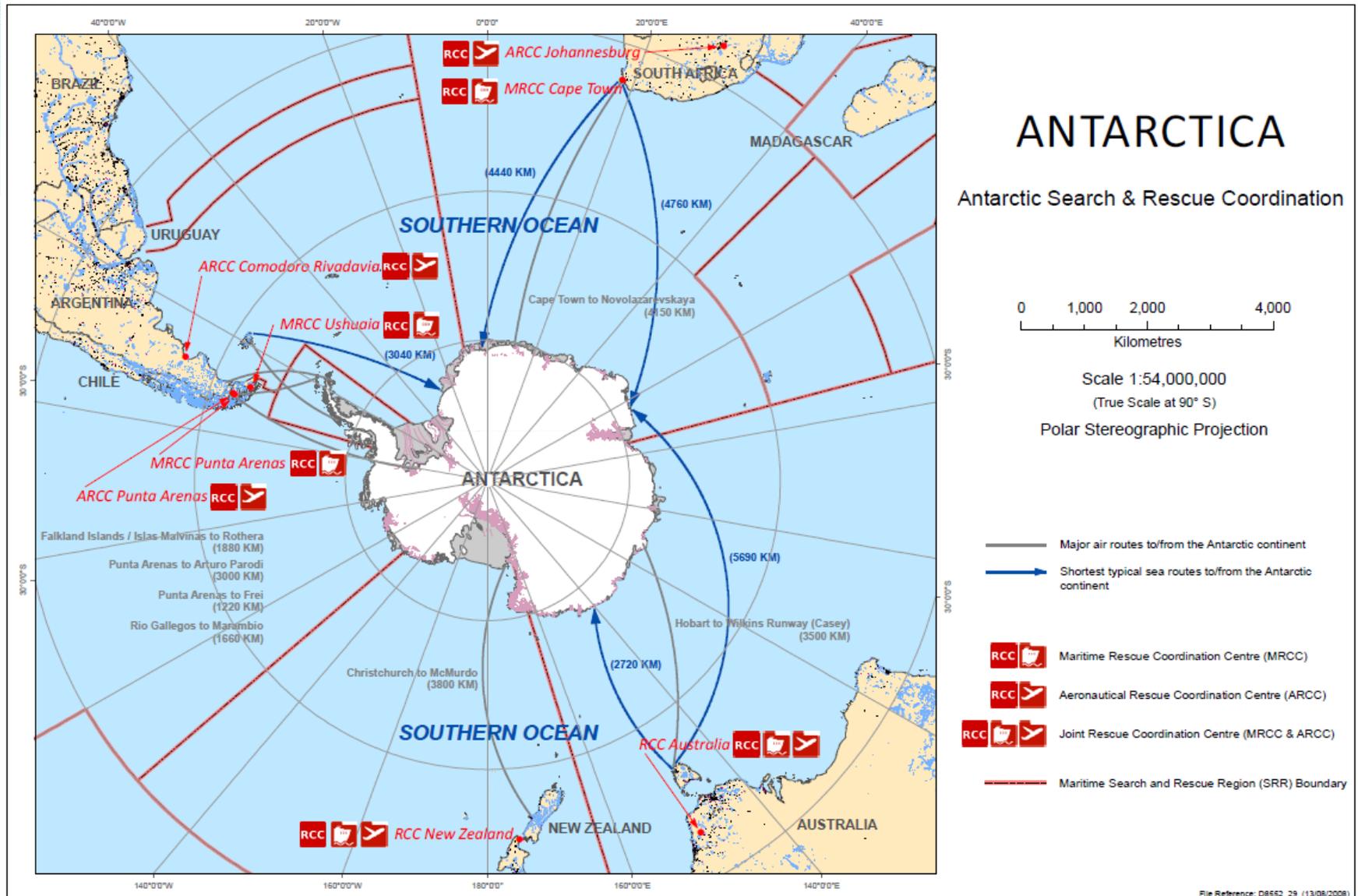


Aotearoa New Zealand EEZ



Aotearoa New Zealand SAR Area







The Antarctic Treaty the area south of 60° South Latitude

Art. I Antarctica shall be used for peaceful purposes only

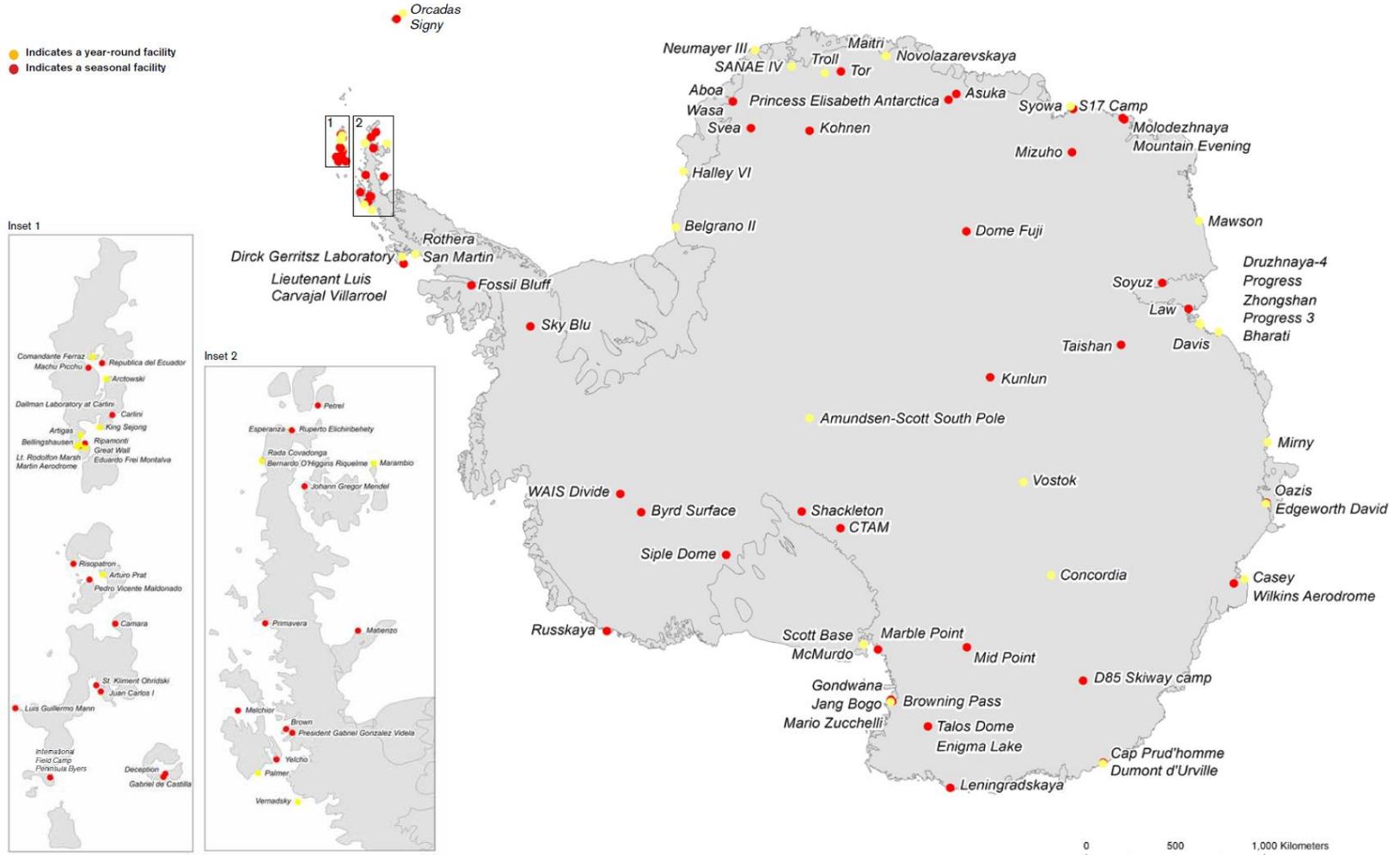
Art. II Freedom of scientific investigation and cooperation toward that end shall continue

Art. III Scientific observations and results shall be exchanged and made freely available

Protocol on Environmental Protection

Environmental impact assessments are needed for any activity in the Treaty area, with regulation of waste management, pollution prevention and mitigation of other hazards carefully monitored

Antarctic facilities

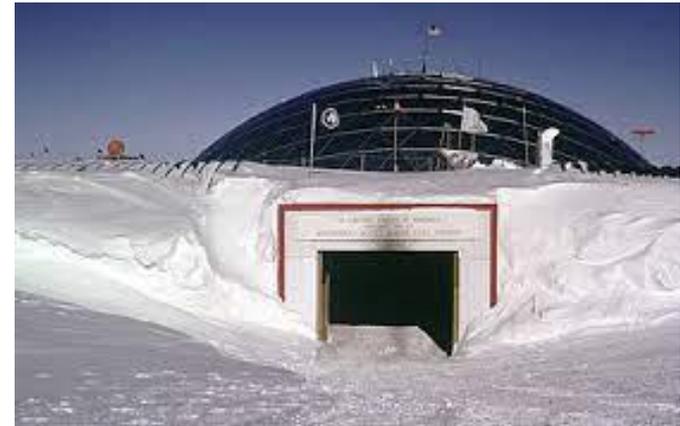




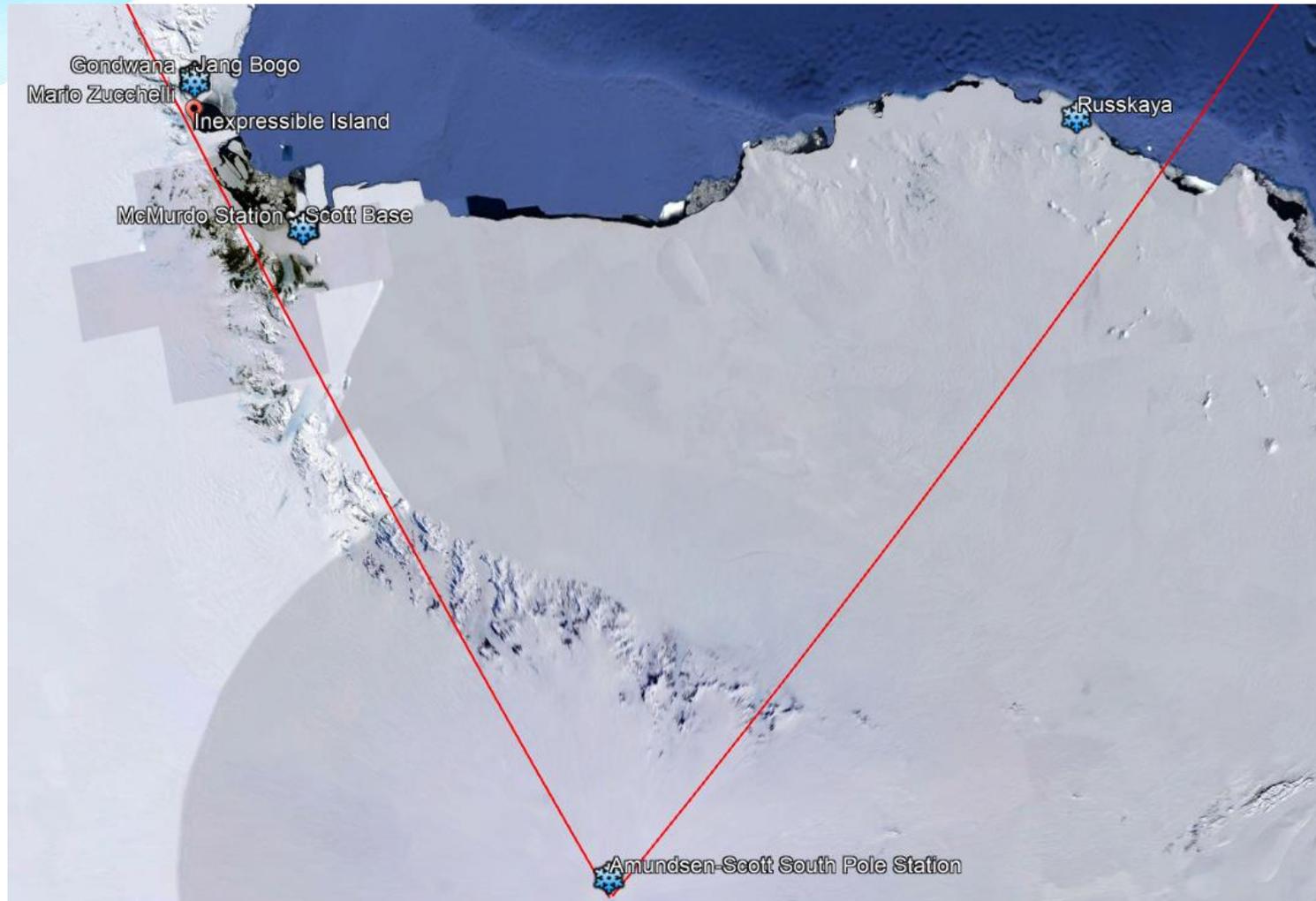
ACTIVITIES IN THE NZ ANTARCTIC SAR REGION

National Antarctic Program bases

- Scott Base (NZ)
- McMurdo Station (USA)
- Amundsen-Scott South Pole Station (USA)
- Mario Zuchelli Station (Italy)
- Jang Bogo Station (Korea)
- Gondwana Station (Germany)
- Inexpressible Island (China)
- Russkaya Station (Russia)



Location of bases within NZSRR





Fishing



Longliners

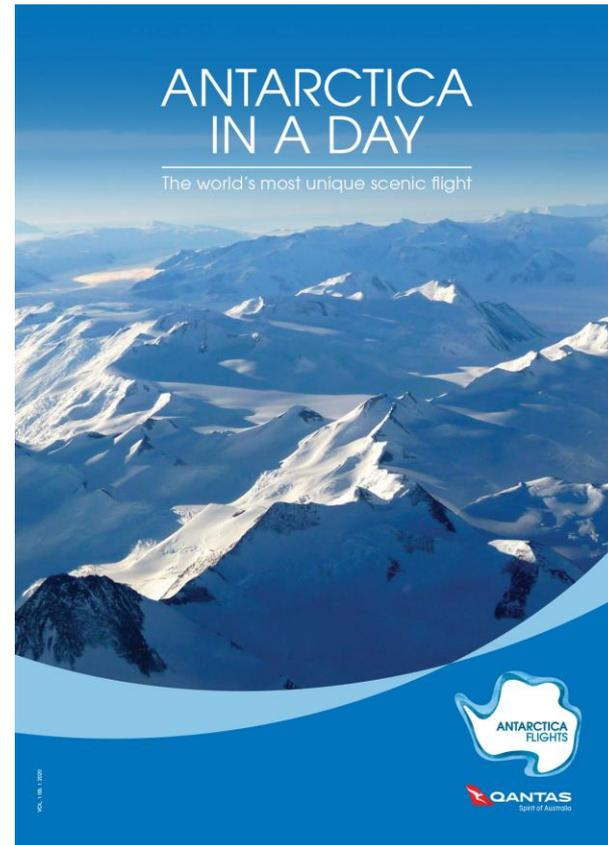
- Authorised - CCAMLR
- IUU – illegal, unreported and unregulated



Tourism



- Passenger ship cruises
- Sightseeing overflights



Independent visits



Land



Sea

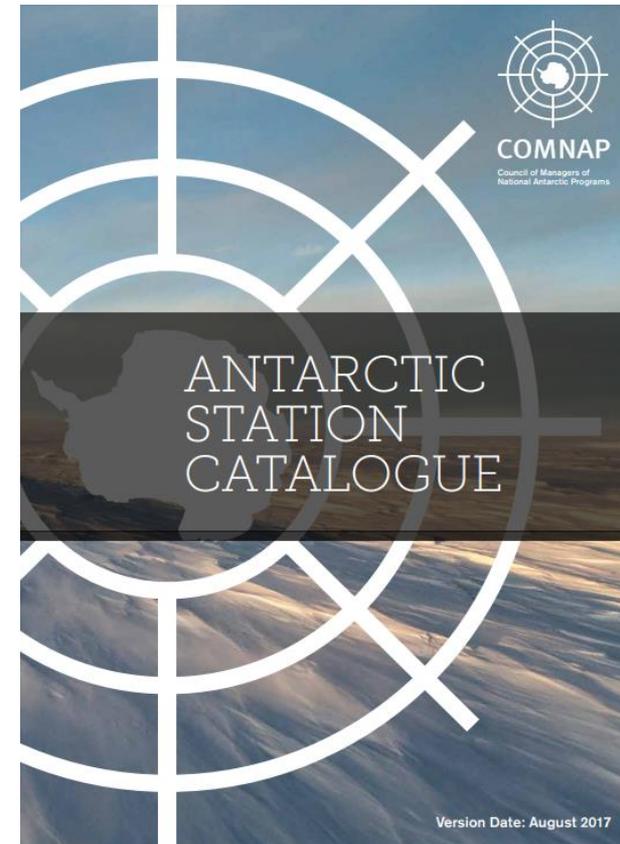


Air



COLLABORATION AND PLANNING

Council of Managers of National Antarctic Programs



COMNAP



COMNAP

Members:

National Antarctic Programs of 32 countries
plus 6 Observer National Antarctic Programs

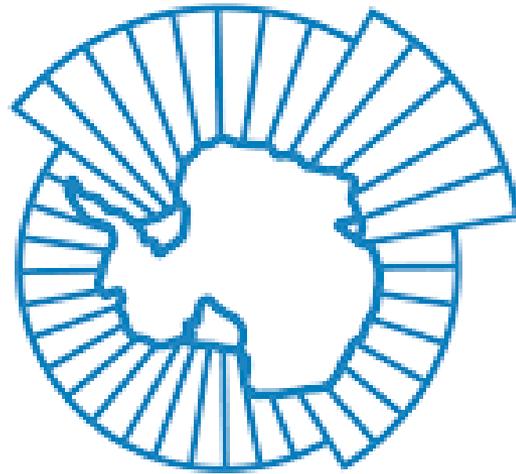
Secretariat:

Based at Canterbury University, Christchurch

COMNAP AGM:

MNZ invited to join Antarctica New Zealand's
delegation annually

Convention for the Conservation of Antarctic Marine Living Resources



CCAMLR

CCAMLR

Established by international treaty in 1982 to conserve Antarctic marine life while providing for rational use

It is part of the Antarctic Treaty System

It is important in respect of SAR activity in the Antarctic because it authorises fishing within the convention area.

CCAMLR



- Sets Total Allowable Catch within each conservation area
- Authorises compliant fishing vessels

Antarctic Toothfish season:

- Starts 01 December and continues until Total Allowable Catch is reached.



International Association of Antarctica Tour Operators



IAATO

Organisation

Voluntary alliance of tourism operators established in 1991, now with over 100 members.

Mission

To advocate and promote the practice of safe and environmentally responsible private-sector travel to the Antarctic.

RCCNZ Antarctic SAR Response Plan

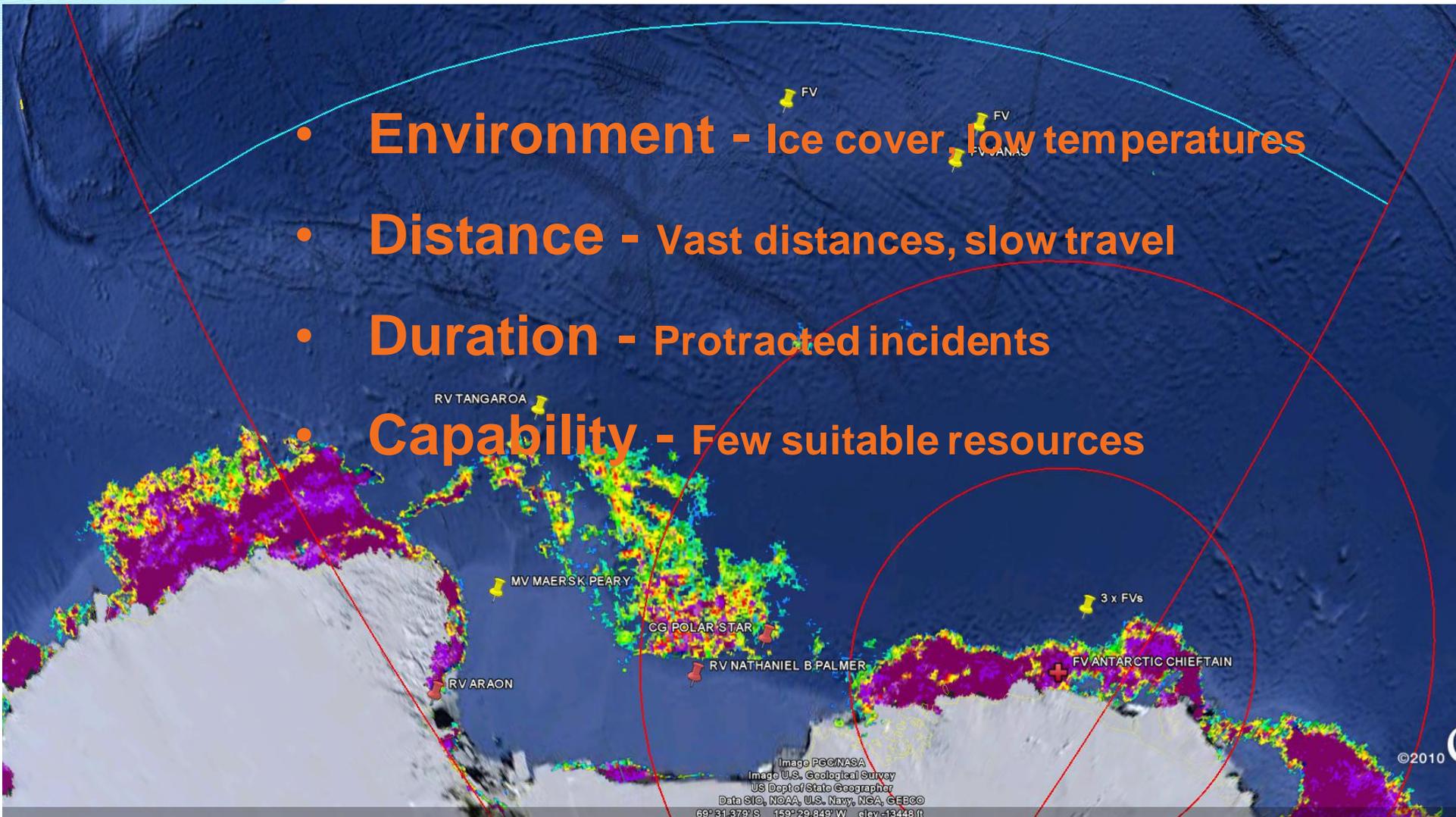
- Guides RCCNZ Search and Rescue Officers in response to any SAR incident within the Antarctic Treaty Area. Agreed SAR principles apply, consistent with IAMSAR and RCCNZ SOPs
- Takes into account scarcity of resources and harsh environment
- Makes best use of databases and tracking systems available
- Requires the building and development of relationships with all others involved in the area. Each agency featured is approached annually for updates.



SAR ACTIVITY

Challenges

- **Environment** - Ice cover, low temperatures
- **Distance** - Vast distances, slow travel
- **Duration** - Protracted incidents
- **Capability** - Few suitable resources



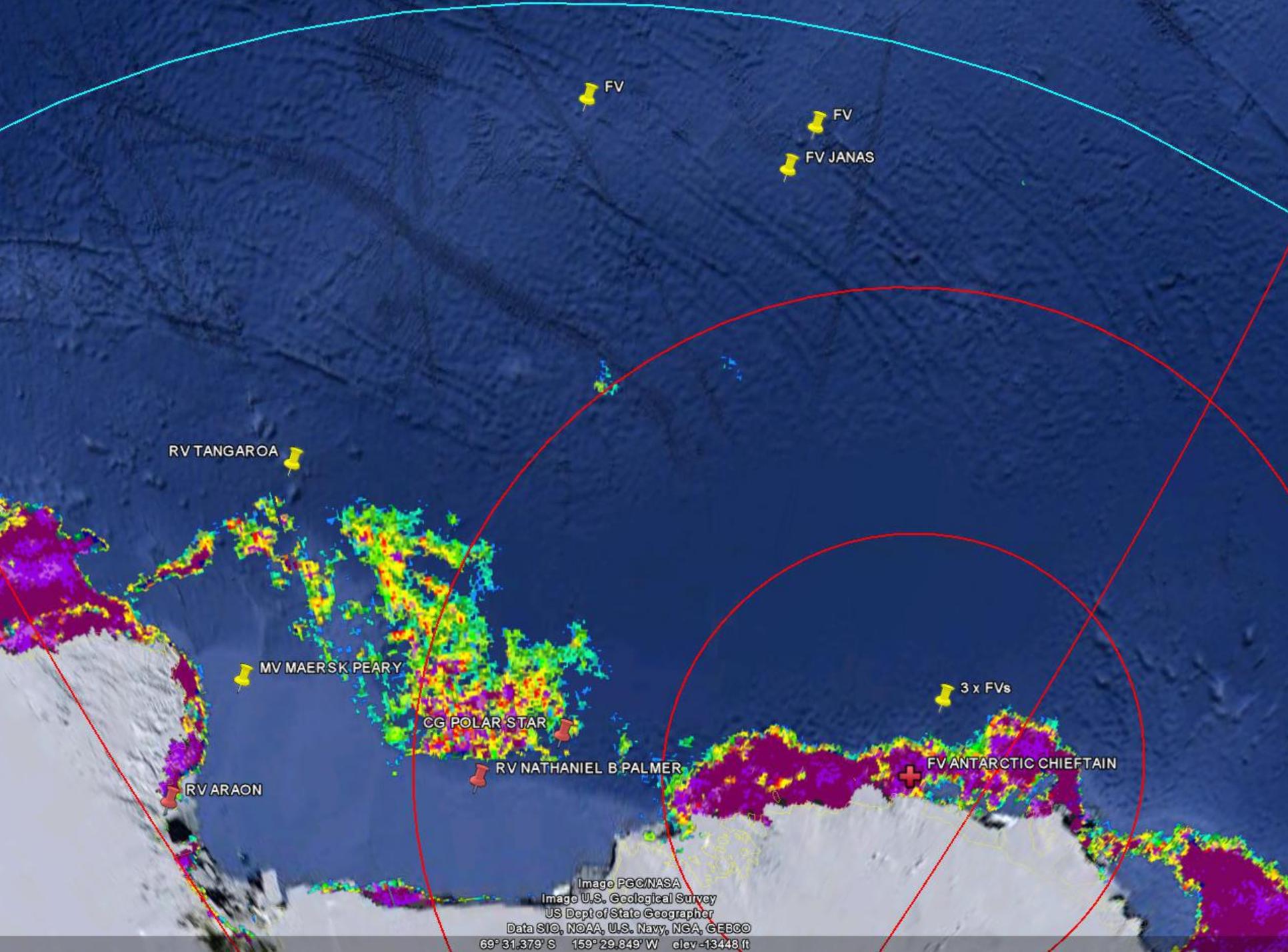


Since 2004:

- 26 SAR operations
- 453 people assisted
- 33 lives lost

FV ANTARCTIC CHIEFTAIN





FV

FV

FV JANAS

RV TANGAROA

MV MAERSK PEARY

CG POLAR STAR

RV NATHANIEL B PALMER

RV ARAON

3 x FVs

FV ANTARCTIC CHIEFTAIN

Image PGC/NASA
Image U.S. Geological Survey
US Dept of State Geographer
Data SIC, NOAA, U.S. Navy, NGA, GEBCO
69° 31.379' S 159° 29.849' W elev -13448 ft



Members of the military dive team aboard Coast Guard Cutter Polar Star launch a remote operated vehicle into the water to inspect the disabled fishing vessel Antarctic Chieftain
(U.S. Coast Guard photo by Petty Officer 1st Class George Degener)



The fishing vessel Antarctic Chieftain follows the Coast Guard Cutter Polar Star through sea ice in the Southern Ocean, Feb. 15, 2015.

(U.S. Coast Guard photo by Petty Officer 1st Class George Degener)



The fishing vessel Janas arrives in the Southern Ocean to assume escort responsibility

(U.S. Coast Guard photo by Petty Officer 1st Class George Degener)

Observations

Impressive situation/forecasts provided by NZ MetService

It was very useful that other arrangements had been sought for towing once clear of the ice. This was a concern for USCG.

The POLAR STAR was off-contract to USAP and on passage to Seattle. It would have been more difficult if the request had been made a few days earlier.

If POLAR STAR hadn't been able to break Antarctic Chieftain out of the ice we would probably have to helicopter the crew off.

The POLAR STAR did not have helicopters on board

The Araon was the closest vessel with ice capability and helicopters on board

Search and Rescue in Antarctica

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