Search and Rescue in the Antarctic

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CONTEXT
Aotearoa New Zealand

30° S (Kermadec Islands)

166° (Auckland Islands)

175° E (Chatham Islands)

52° S (Campbell Islands)
Aotearoa New Zealand EEZ
Aotearoa New Zealand SAR Area

NZSRR 9 million nm²

ATA 1.5 million nm²
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

Source: COMNAP 2017
ACTIVITIES IN THE NZ ANTARCTIC SAR REGION
National Antarctic Program bases

• Scott Base (NZ)
• McMurdo Station (USA)
• Amundsen-Scott South Pole Station (USA)
• Mario Zucchelli 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

ANTARCTIC STATION CATALOGUE
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

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.
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
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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