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**The 2<sup>nd</sup> Antarctic SAR Workshop**

***Towards Improved Search and Rescue  
Coordination and Response in the Antarctic***

**Monday 2 November – Wednesday 4 November 2009**

**Buenos Aires, Argentina**

This workshop is hosted by Argentina's Dirección Nacional del Antártico (DNA) in collaboration with the Council of Managers of National Antarctic Programs (COMNAP).

Venue: Palacio San Martín, Arenales 761, Buenos Aires, Argentina.

*Paper prepared by COMNAP to ATCM XXXIII (2010) Uruguay*

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## **Background**

The Antarctic is a challenging environment for humans. These challenges may result in situations in which Search and Rescue (SAR) activities may be required.

Recognising this, and recognising the need to explore options for improved SAR coordination and response in the Antarctic in order to preserve human life, the Antarctic SAR Workshop I was held in 2008 in Valparaiso, Chile. A report on that workshop was presented at ATCM XXXII (2009) in Baltimore, USA, as Working Paper 47 “*Towards improved Search and Rescue coordination and response in the Antarctic*”.

Antarctic SAR Workshop II was subsequently held on 2-4 November 2009 in Buenos Aires, Argentina, building on the outcomes of first workshop.

The overarching objective of the 2009 workshop was to **continue to improve Search and Rescue coordination and response in the Antarctic** as a follow up on SAR Workshop I (2008).

Specific objectives included (full agenda may be found in Appendix 1):

- Conduct a review of progress, in particular on actions arising from the 1<sup>st</sup> workshop held in Valparaiso, Chile, August 2008;
- Conduct preliminary discussions on prevention through training and prevention through improved hydrography;
- Discuss options for a common policy on issues related to vessels calling for assistance whilst not in an immediate distress situation;
- Discuss the importance of taking the “Search” out of “Search and Rescue” ;
- Outline the difficulties of dealing with a mass rescue operation;
- Review current aeronautical traffic and arrangements , including weather forecasting services;
- Understand the challenges of land SAR, which unlike maritime and aeronautical SAR is not covered by any existing international arrangements, and discuss options to improve Land SAR coordination and response capabilities.

Delegates to the workshop included representatives from all five of the Rescue Co-ordination Centres (the RCCs of Argentina, Australia, Chile, New Zealand and South Africa), from IAATO, COMNAP, IMO, Germany, US and UK. A complete list of workshop participants can be found at Appendix 2.

This paper presents the key points and recommendations from the 2009 workshop. Copies of all meeting papers and workshop presentations can be found at [www.conmap.aq](http://www.conmap.aq).

## **Disclaimer**

Nothing mentioned in this document should be considered contrary to any of the international conventions in force regarding Search and Rescue and Communications, issues which are regulated by IMO, ICAO, ITU, and national laws and regulations in force.

## Key points

1. A number of bilateral SAR agreements with one or both adjoining RCC countries, in particular for Maritime, already exist.
2. A number of RCCs also have agreements with National Antarctic Programmes.
3. Reliable, timely and accessible position reporting means that the “search” component can be reduced in “Search and Rescue”. This makes information exchange systems very important. Many such systems are available.
4. The environmental conditions in the Antarctic can change rapidly, good information on weather and ice conditions, including reliable forecasting, is critical to Antarctic operations.
5. Environmental changes, in the Antarctic Peninsula in particular, mean that sea areas that were once covered by ice are now opening up and it is these areas that scientists often want to study. It is also these areas that are often uncharted.
6. While the IMO HCA has a strong desire to improve charts and is making an effort to do so, charts of the Antarctic region are often inadequate and are lacking, even though new charts have recently been produced and priority areas for charts have been identified.
7. Ships of opportunity can be used to collect hydrographic data and will require adequate instructions and guidance on how to do so and how to file such data with the relevant authorities.
8. A Master of a ship is not required to ask for assistance when not in imminent danger. However, SAR services should be on the alert with the purpose of moving the resources if necessary. It is often costly to have resources on stand-by, but, an incident may progress from a minor problem to a major one or to a disaster and this is often only appreciated as the event evolves.
9. Antarctic facilities are not necessarily considered a place of safety. This does not mean there are no safe “havens” in the Antarctic. However, these safe “havens” do not have the capacity to accommodate large numbers of people requiring such a “haven”.
10. National Antarctic Programme stations have medical capabilities, but they are geared towards the medical needs of station personnel. The facilities and medical personnel are not equipped to deal with large numbers of people requiring treatment and care.
11. The Antarctic tourism industry can be an asset in a SAR operation with vessels, aircraft and personnel not involved in the accident having the ability to assist.
12. National Antarctic Programmes and IAATO operators have rules for their personnel relating to “adventure activities”, there appears to be the need to apply some rules to non-governmental, non-IAATO personnel which clearly identify responsibilities and risks related to “adventure activities” in the Antarctic.
13. A SAR operation involves a series of phases. Contingency plans are required for each phase, but, in particular, for phase 1 which is removing a person/people from imminent danger.
14. In some countries, an application for an authorisation or permit related to tourism activity in the Antarctic includes the need to provide information on SAR contingency planning before an authorization or permit is considered. But not all countries require this and base their permitting on environmental impact criteria alone.

15. Environment, distances, and resource availability all impact the ability to respond to a land SAR situation.
16. The COSPAS-SARSAT systems are considering whether to implement two-way messaging capability. This would be an option on some beacons and due consideration should be given to minimizing beacon complexity and cost.
17. Concern was expressed, that, in the event of an incident in the Antarctic, involving a large number of people, there are limited capabilities to:
  - Transit those involved to a “place of safety”;
  - Provide adequate physical medical care especially given National Antarctic Programme’s station capacities and capabilities;
  - Provide adequate psychological care to those who become distressed by the emergency situation.

### **Recommendations**

1. That National Antarctic Programmes ask their countries to stress the importance to their Antarctic vessel operators of reporting their positions on a regular basis through the COMNAP SPRS or the IAATO vessel tracking scheme or direct to the relevant SAR authority. This applies equally to government operated vessels and non-governmental organisation-operated vessels.
2. Request that National Antarctic Programmes ask their countries to include in their national papers to IMO, information on Antarctic SAR issues from workshops such as this one.
3. Request National Antarctic Programmes to ask their countries to remind operators of vessels of the importance of training that is specific to the Antarctic environment they are working in. In support of this, countries should be made aware that there are courses on offer to train people in Antarctic water navigation and that the IMO is making an effort in the area of training requirements and minimum level of experience for the maritime polar regions.
4. Encourage countries with National Antarctic Programmes to use their influence at the IMO, to incorporate in the Polar Code the following:
  - Specific elements on training deck officers and captains sailing in Antarctic waters;
  - Consideration of the special characteristics of the SAR operation in Antarctic waters.
5. National Antarctic Programmes to encourage their countries to give a higher priority to Antarctic charting.
6. Recognising that even though a captain of a ship is not necessarily obligated to request SAR assistance, given the special circumstances in the Antarctic, captains should provide early notification to SAR authorities of a developing situation with ship operations to improve any rescue response.
7. Inform National Antarctic Programmes and countries that the success of a land SAR mission often depends on rapid reaction which requires resources to be in close proximity.
8. Request that National Antarctic Programmes express to their countries the need for SAR contingency planning to be outlined in all permit or authorisation applications or advance notifications before they are considered.
9. That National Antarctic Programmes and IAATO encourage their members to carry COSPAS-SARSAT beacons in the field and that countries encourage all land-based expeditions to carry these beacons and to ensure that all beacons are registered and preferably have a GPS chip.

Appendix 1: Agenda for the workshop

Day 1: Monday 2 November

1. Opening 09:00
  - 1.1 Apologies and Introductions
  - 1.2 Adoption of the Agenda
2. Introduction: background, scope and objectives of the workshop
3. Review of Progress
  - 3.1 Review of last workshop and progress on actions
  - 3.2 Situation report/update: relevant bilateral (multilateral) SAR arrangements
  - 3.3 Arrangements between National SAR authorities and National Antarctic Programmes
  - 3.4 Situation report/update: relevant IMO work and developments, including LRIT
  - 3.5 Review of recent (since August 2008) maritime incidents and lessons learned
  - 3.6 Review of recent (since August 2008) aeronautical incidents and lessons learned
4. Prevention
  - 4.1 Prevention through training: Relevant training courses and standards; discussion
  - 4.2 Prevention through improved hydrography: Status of Antarctic charts; discussion
5. Discuss options for a common policy on issues related to vessels calling for assistance whilst not in an immediate distress situation
6. Taking the “Search” out of “Search and Rescue”
  - 6.1 Situation report: position reporting and tracking in the Antarctic
  - 6.2 Discussion: Taking the “Search” out of “Search and Rescue”
7. Mass Rescue Operations
  - 7.1 Situation report: the use or planned use of large vessels in the Antarctic
  - 7.2 Discussion: Dealing with a Mass Rescue Operation
8. Aeronautical traffic and arrangements, including weather forecasting services (Situation Report)

Day 2: Tuesday 3 November, start time 09:00

9. Land SAR
  - 9.1 Definitions, scope, questions to address
  - 9.2 Situation report: Current land SAR situation, by region: Peninsula, Dronning Maud Land, East Antarctica, Ross Sea
  - 9.3 Review of some recent land-based incidents and lessons learned
  - 9.4 Discussion: options to improve Land SAR coordination and response capabilities
10. Hypothetical SAR scenarios
  - 10.1 Briefing, allocation of scenarios
  - 10.2 Development of scenarios (by two groups in parallel)

Day 3: 4 November, start time 09:00

10. Hypothetical SAR Scenarios (Continuation)
  - 10.3 Reports on the two scenarios
11. Discussion: lessons learned, what can we do better, future actions
12. Conclusions
13. Adoption of workshop report
14. Close of workshop

Appendix 2: List of workshop participants

COUNTRY/ PAIS or ORGANIZATION/ ORGANISMO		NAME/NOMBRE	Organization and position/Organismo y cargo	Address/Dirección	Email
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