



COMNAP Antarctic Aviation Project Plan

Version 2 (30 August 2019)

1. Background

Promoting operational safety in Antarctica is a key priority for COMNAP. In regards to air operations and air safety there is renewed opportunity to discuss increase in activity, changes in communications capabilities and improvements in technologies. The question of safety in Antarctic air operations is a matter of current concern of the Antarctic Treaty Consultative Meeting ATCM) and the Parties.

This document should be read in conjunction with the COMNAP Project Proposal (30 August 2019) and with information presented at COMNAP AGM XXXI (2019) in Meeting Paper 9.5 and Presentation 6.

2. Project Steering Committee

The role of the Project Steering Committee is to ensure the COMNAP project achieves its agreed objectives, establishes required Working Groups (see 3 below) to ensure delivery of agreed outputs on-time (and within budget), and to ensure direct communications with the COMNAP Executive Committee (EXCOM).

The Project Steering Committee will be composed of the following members:

- **EXCOM Representative:** John Guldahl (Norwegian Polar Institute), Vice Chair with oversight of the COMNAP Air Operations Expert Group john.guldahl@npolar.no
- **Steering Committee Lead:** Paul Sheppard (US Antarctic Program), Leader of the COMNAP Air Operations Expert Group psheppard@nsf.gov
- **COMNAP Secretariat:** Michelle Rogan-Finnemore (Executive Secretary) sec@comnap.aq

3. Project Outputs

Output 1: Review ATCM Resolution 1 (2013) and provide COMNAP advice to ATCM XLIII
Working Group 1: Michelle Rogan-Finnemore (Lead)

Timeframe: 1 September 2019 through 15 May 2020

Key deadlines:

15 February – 1 March 2020: Final draft of COMNAP WP circulated to MNAPs

9 April 2020: Deadline for submission of COMNAP WP

29 May 2020 (TBC): present COMNAP WP to ATCM XLIII Working Group 2

Possible Outcomes: ATCM XLIII to propose changes to Resolution 1 (2013) in the form of a new Measure or Resolution, or request further advice, or leave Resolution 1 (2013) current. Any outcome to be presented back to the Antarctic Aviation Workshop (AAW) and to the COMNAP AGM.

Output 2: Preform Air-related Technology Audit in anticipation of ATCM XLIII and as background information to the AAW. Share audit results with COMNAP Members at AGM XXXII (2020) and other Antarctic air operators.

Working Group 2: Paul Sheppard (Lead), David Rootes (IAATO), Sven Lidström (NPI), *and others?*

Items to consider

- Situational Awareness
- Tracking systems (COMNAP Asset Tracking System (CATS) and others)
 - Participation
 - Opportunities
 - Potential obsolescence
 - Enhancement
- Automatic Dependent Surveillance-Broadcast (ADS-B) out
- Flight Aware
 - Ground receiver distribution
 - National Antarctic Programs
 - Non-Governmental Operators, including non-IAATO members
- De-confliction
 - Traffic Information Broadcast by Aircraft (TIBA) relevance
 - ADS-B in
 - Traffic Collision Avoidance System (TCAS)
 - Other technologies?
- Search and Rescue
 - Autonomous Distress Tracking (ADT)
 - ADS-B/Flight Aware
 - SARSAT
 - Other technologies

Timeframe: 10 September 2019 through 31 July 2020

Key deadlines:

10 December 2019: Provide information from the audit to Working Group 1

24 April 2020: Deadline for submission of COMNAP IP

30 June 2020: Deadline for submission of information/abstracts for the AAW

Possible Outcomes: Recommendations for avoidance, tracking and distress situation technologies for aircraft operating in Antarctica, with full consideration of ICAO requirements. This outcome feeds into Outcome 1 and Outcome 4.

Output 3: Develop minimum survival equipment recommendations for carriage on aircraft in anticipation of ATCM XLIII and as background information to AAW/share guidance with COMNAP Members and other Antarctic air operators.

Working Group 3: John Guldahl (Lead), Rod Arnold (British Antarctic Survey), Brian Crocker (Kenn Borek Air), *and others?*

Timeframe: 10 September 2019 through 31 July 2020

Key deadlines:

10 December 2019: Information share with Working Group 1

30 June 2020: Deadline for submission of information/abstracts for the AAW

3-6 August 2020: Share information at COMNAP AGM XXXII

Post AGM: Update and revise as required

Possible Outcomes: Guidance in the form of minimum equipment to be carried on aircraft to extend survival times of persons involved in an accident. This outcome feeds into Outcome 4 and possibly Outcome 1.

Output 4: Convene COMNAP Antarctic Aviation Workshop (AAW), Hobart, Australia (30–31 July 2020)

Workshop Organising Committee: John Guldahl, Paul Sheppard, Michelle Rogan-Finnemore, Rob Wooding (Australia Antarctic Division), David Rootes (IAATO), **and others?**

Develop agenda, programme and schedule and invite wide participation in the form of presentations and information papers and panel discussions. Form Workshop Working Groups, indicating leadership for each Working Group that address these key topics/workshop sessions (in no particular order):

Key topic: Technology Review results, applications and recommendations

Key topic: Regulatory Review

- Mandated ICAO Inter-continental compliance
- Recommendation on involvement of national aviation authorities
- Adoption of best practices
 - Position reporting
 - Airfield intrusion
 - Advance notice to alternative airfield(s)
 - Equipment requirements

Key topic: Communications Initiatives/Improving Information Exchange

- Antarctic Flight Information Manual (AFIM) editors and subscribers
- Competent authorities and other national authorising or permitting bodies' procedural practices-improving effectiveness and efficiency and communications with COMNAP (and IAATO?)
- Improving communications between COMNAP Member National Antarctic Programs, Governmental Air Operators and Non-governmental Air operators in Antarctica.
- Electronic Information Exchange System (EIES) enhancement

Key topic: Additional Safety Considerations

- Establishing a combined Antarctic air incident list
- Recommended aircraft minimum survival equipment guidance
- Remotely Piloted Aircraft Systems (RPAS) and consideration of no-fly zones/times
- Transponders/ADS-B for situational awareness on all air activity (RPAS, Balloons)

Communicate with stakeholders in lead-up to AAW, including submission of COMNAP IP to ATCM XLIII (2020). Extend invitation to community of stakeholders to participate-there should be a wide range of presentations and participants. The AAW outcomes will be made available to Antarctic community and COMNAP products, guidance and advice to be updated based on AAW outcomes as required.

Output 5: COMNAP paper(s) to ATCM XLIV (2021)

This will be led by the COMNAP EXCOM to meet submission deadlines for ATCM XLIV (2021).

Upon completion of Output 5, the project will end. All outcomes will be reported at COMNAP AGM XXXIII (2021).