



## COMNAP Antarctic Aviation Project Plan

Version (24 April 2020)

### 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 Antarctic Aviation (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
- **Steering Committee Lead:** Paul Sheppard (US Antarctic Program), Leader of the COMNAP Air Operations Expert Group
- **COMNAP Secretariat:** Michelle Rogan-Finnemore (Executive Secretary)

### 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 June 2021

Key deadlines:

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

1 May 2021 (TBC): Deadline for submission of COMNAP WP

18 June 2021 (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: Perform Air-related Technology Audit** in anticipation of ATCM XLIII and as background information to the AAW. Share audit results with COMNAP Members via email exchange in advance of COMNAP at AGM XXXIII (2021) and other Antarctic air operators.

Working Group 2: Paul Sheppard (Lead), David Rootes (IAATO), Sven Lidström (NPI), Andrea Colombo (COMNAP Secretariat), Rod Arnold (BAS), Christine Wesche (AWI)

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
  - SRSAT
  - Other technologies

Timeframe: 10 September 2019 through July 2021

Key deadlines:

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

1 June 2021: 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), Brian Crocker (Kenn Borek Air), Robb Clifton (AAD), Matt Brown (ANZ), Jared Blows (MRCC South Africa), Rod Arnold (BAS), Miguel Figueroa (Chilean Air Force), David Rootes (ALE)

Timeframe: 10 September 2019 through July 2021

Key deadlines:

10 December 2019: Information share with Working Group 1

May 2020–May 2021: Share recommendations with operators and refine as required

1 June 2021: Deadline for submission of information/abstracts for the AAW

12–14 July 2021: Share information at COMNAP AGM XXXIII

15–16 July 2021: Presentation and finalise at AAW

*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 Antarctic Aviation Workshop (AAW)**, Toyama, Japan (15–16 July 2021)  
Workshop Organising Committee: John Guldahl, Paul Sheppard, Michelle Rogan-Finnemore, Charlton Clark (AAD), Gen Hashida (NIPR), David Rootes (ALE/IAATO), Santjie White (ARCC South Africa), Gabriel Sant (Argentine Air Force)

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 (2021). 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 (2022)**

This will be led by the COMNAP EXCOM to meet submission deadlines for ATCM XLIV (2022).

Upon completion of Output 5, the project will end. All outcomes will be reported at COMNAP AGM XXXIV (2022).