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Ref.: AN 11/19.10, AN 11/1-21/34

19 May 2021

**Subject:** Approval of Amendment 1 to the *Procedures for Air Navigation Services — Aircraft Operations* (PANS-OPS, Doc 8168), Volume III — *Aircraft Operating Procedures*

**Action Required:** a) Implementation of the amendments on 4 November 2021; b) Publication of any differences as of 4 November 2021

Sir/Madam,

1. I have the honour to inform you that the Air Navigation Commission, acting under delegated authority, on 19 January 2021, approved Amendment 1 to the *Procedures for Air Navigation Services — Aircraft Operations* (PANS-OPS, Doc 8168), Volume III — *Aircraft Operating Procedures*, for applicability on 4 November 2021 for the elements concerning air operator provisions supporting the implementation of the GADSS concept by establishing requirements for operators to develop procedures to: a) monitor the aircraft tracking systems in use for their aircraft; b) respond to any information received from such tracking systems in an appropriate manner; and c) require that information received from an autonomous distress tracking system be forwarded to the location of an aircraft in distress repository (LADR). The amendment was approved on 19 April 2021 by the President of the Council on behalf of the Council in accordance with established procedure. Copies of the amendments are available as attachments to the electronic version of this State letter on the ICAO-NET (<http://portal.icao.int>) where you can access all other relevant documentation.

2. Amendment 1 to PANS-OPS, Volume III stemmed from proposals from the Global Aeronautical Distress and Safety System Advisory Group (GADSS-AG) and the sixth meeting of the Flight Operations Panel (FLTOPSP/6). These aim to complete air operator provisions supporting the implementation of the GADSS concept by establishing requirements for operators to develop procedures to; monitor the aircraft tracking systems in use for their aircraft, respond to any information received from such tracking systems in an appropriate manner, and require that information received from an autonomous distress tracking system be forwarded to the location of an aircraft in distress repository (LADR).

3. Your Government is invited by the Council to implement the provisions of the PANS-OPS. In this connection, I draw your attention to the decision taken by the Council, on 1 October 1973, to discontinue the publication of differences in Supplements to PANS documents and, instead, to request States to publish up-to-date lists of significant differences from PANS documents in their Aeronautical Information Publications (AIPs).

4. May I, therefore, invite your Government to publish in your Aeronautical Information Publication a list of any significant differences which will exist on 4 November 2021 for the element concerning air operator provisions supporting the implementation of the GADSS concept by establishing requirements for operators to develop procedures to: a) monitor the aircraft tracking systems in use for their aircraft; b) respond to any information received from such tracking systems in an appropriate manner; and c) require that information received from an autonomous distress tracking system be forwarded to the location of an aircraft in distress repository (LADR), between the provisions of the PANS-OPS and your national regulations and practices.

Accept, Sir/Madam, the assurances of my highest consideration.

Fang Liu  
Secretary General

**Enclosures:**

- A — Amendment to the Foreword of PANS-OPS, Volume III
- B — Implementation task list and outline of guidance material
- C — Impact assessment

ATTACHMENT A to State letter AN 11/19.10, AN 11/1-21/34

**AMENDMENT TO THE FOREWORD OF  
PANS-OPS, VOLUME III (DOC 8168)**

Add the following at the end of Table A in Volume III of the PANS-OPS:

<i>Amendment</i>	<i>Source(s)</i>	<i>Subject</i>	<i>Approved Applicable</i>
1	Global Aeronautical Distress and Safety System Advisory Group (GADSS-AG); Sixth meeting of the Flight Operations Panel (FLTOPSP/6)	The proposals complete air operator provisions supporting the implementation of the GADSS concept by establishing requirements for operators to develop procedures to: a) monitor the aircraft tracking systems in use for their aircraft; b) respond to any information received from such tracking systems in an appropriate manner; and c) require that information received from an autonomous distress tracking system be forwarded to the location of an aircraft in distress repository (LADR).	D 4 November 2021

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**IMPLEMENTATION TASK LIST AND OUTLINE OF GUIDANCE MATERIAL IN RELATION TO AMENDMENT 1 TO PANS-OPS, VOLUME III (DOC 8168) AND CONSEQUENTIAL AMENDMENT TO ANNEX 6, PART I**

**1. IMPLEMENTATION TASK LIST**

1.1 Essential steps to be followed by the State of the Operator in order to implement Amendment 1 to PANS-OPS, Volume III:

- a) establish regulations requiring operators to establish the aforementioned aircraft tracking procedures; and
- b) determine which ADT services providers are authorized to be used by aircraft operators.

**2. STANDARDIZATION PROCESS**

2.1 Approval date: 19 April 2021

2.2 Applicability dates: 4 November 2021 for Amendment 1 to PANS-OPS, Volume III.

2.3 Embedded date(s): N/A

**3. SUPPORTING DOCUMENTATION**

**3.1 ICAO documentation**

<b>Title</b>	<b>Type (PANS/TI/Manual/Circ)</b>	<b>Planned publication date</b>
Annex 11 — <i>Air Traffic Services</i>	Annex	Available
Location of an Aircraft in Distress Repository Functional Specification (v3.1)	Manual	Available <i>Note.— This document will be replaced by Doc 10150 once published.</i>
GADSS Concept of Operations, Version 6.0	Manual	Available
Doc 10115, <i>Report of the Thirteenth Air Navigation Conference (AN-Conf/13)</i> and Supplement No. 1	Manual	Available

<b>Title</b>	<b>Type (PANS/TI/Manual/Circ)</b>	<b>Planned publication date</b>
Doc 10054, <i>Manual on Location of Aircraft in Distress and Flight Recorder Data Recovery</i>	Manual	Available
Circular 347 — <i>Aircraft Tracking Implementation Guidelines</i>	Circular	Available
Doc 10150, <i>Functional Specifications for the Location of an Aircraft in Distress Repository (LADR)</i>	Manual	Q1 2021

### 3.2 External documentation

<b>Title</b>	<b>External Organization</b>	<b>Publication date</b>
ED-237 - Minimum Aviation System Performance Specification for Criteria to Detect In-Flight Aircraft Distress Events to Trigger Transmission of Flight Information	EUROCAE	Feb 2016

## 4. IMPLEMENTATION ASSISTANCE TASKS

<b>Type</b>	<b>Global</b>	<b>Regional</b>

## 5. UNIVERSAL SAFETY OVERSIGHT AUDIT PROGRAMME (USOAP)

5.1 Additional PQs regarding the establishment of policy and procedure for aircraft tracking should be considered.

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**IMPACT ASSESSMENT IN RELATION TO AMENDMENT 1 TO  
PANS-OPS, VOLUME III (DOC 8168)**

**1. INTRODUCTION**

1.1 Amendment 1 to the first edition of PANS-OPS (Doc 8168), Volume III — *Aircraft Operating Procedures* is intended to complete air operator provisions supporting the implementation of the GADSS concept by establishing requirements for operators to develop procedures to; monitor the aircraft tracking systems in use for their aircraft, respond to any information received from such tracking systems in an appropriate manner, and require that information received from an autonomous distress tracking system be forwarded to the location of an aircraft in distress repository (LADR).

**2. IMPACT ASSESSMENT**

*Amendments arising from the GADSS-AG and FLTOPSP/6*

**2.1 Impact on the strategic objectives of ICAO**

2.1.1 *Safety impact:* Provisions to require the monitoring of aircraft tracking systems and develop procedures for responding to events identified as a result, will reduce the time taken to identify aircraft in distress. Providing access to the last known location of the aircraft will assist Search and Rescue with reaching the crash site in the shortest possible time.

2.1.2 *Financial impact:* For both States and industry, there will be an increase in overall cost. State oversight of operators' tracking systems is required to ensure compliance with the Standards of Annex 6, Part I; and operators will be required to establish procedures to monitor their aircraft tracking systems and take action in the event of any potential incident.

2.1.3 *Security impact:* No security impact from this proposal.

2.1.4 *Environmental impact:* No environmental impact from this proposal.

2.1.5 *Efficiency impact:* No efficiency impact from this proposal.

2.1.6 *Expected implementation time:* For both States and industry, this expected to be one to two years. ICAO is developing the repository that will store the location information and the operator only needs to ensure their solution is compliant with this repository.



**AMENDMENT No. 1**  
**TO THE**  
**PROCEDURES**  
**FOR**  
**AIR NAVIGATION SERVICES**

**AIRCRAFT OPERATIONS**

**(Doc 8168)**

**VOLUME III**

**(AIRCRAFT OPERATING PROCEDURES)**

**INTERIM EDITION**

The text of Amendment No. 1 to the PANS–OPS, Volume III (Doc 8168) was approved by the President of the Council on behalf of the Council on **19 April 2021** for applicability on **4 November 2021** for the elements concerning air operator provisions supporting the implementation of the GADSS concept by establishing requirements for operators to develop procedures to: a) monitor the aircraft tracking systems in use for their aircraft; b) respond to any information received from such tracking systems in an appropriate manner; and c) require that information received from an autonomous distress tracking system be forwarded to the location of an aircraft in distress repository (LADR). This interim edition is distributed to facilitate implementation of the amendment by States. Replacement pages incorporating Amendment No. 1 are expected to be distributed in September 2021 (State letter AN 11/19.10, AN 11/1-21/34 refers).

**MAY 2021**

**INTERNATIONAL CIVIL AVIATION ORGANIZATION**

**NOTES ON THE PRESENTATION OF THE AMENDMENT TO  
THE PANS-OPS, VOLUME III**

The text of the amendment is arranged to show deleted text with a line through it and new text highlighted with grey shading as shown below:

- |    |                                                                                                                                        |                                   |
|----|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| 1. | <del>Text to be deleted is shown with a line through it.</del>                                                                         | text to be deleted                |
| 2. | New text to be inserted is highlighted with grey shading.                                                                              | new text to be inserted           |
| 3. | <del>Text to be deleted is shown with a line through it</del> followed by the replacement text which is highlighted with grey shading. | new text to replace existing text |

**TEXT OF AMENDMENT 1 TO**  
**PROCEDURES FOR AIR NAVIGATION SERVICES**  
**AIRCRAFT OPERATIONS (DOC 8168)**

**VOLUME III**  
**AIRCRAFT OPERATING PROCEDURES**

<b>AIRCRAFT TRACKING</b>
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*Editorial Note.*— *Insert new Section 10, Chapters 1 and 2 and amend the Table of Contents accordingly.*

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**Section 10**

**FLIGHT TRACKING**

**Chapter 1**

**AIRCRAFT TRACKING**

**1.1 GENERAL**

The following provisions are applicable to operators required to track their aircraft in accordance with Annex 6, Part I, 3.5 – *Aircraft tracking*.

**1.2 OPERATOR RESPONSIBILITIES**

1.2.1 Operators shall ensure that they have established and documented:

- a) a training programme for flight operations officers/flight dispatchers, or other personnel nominated by the operator for the control and supervision of flights, on the policies and procedures for aircraft tracking; and
- b) procedures for the monitoring of automated aircraft position reports, including actions to take in the event of a missed position report.

1.2.2 When information regarding a missed position report is required to be transmitted to an ATS unit, the aircraft tracking missed position report message template in the Appendix to this chapter should be used.

*Note.*— *Further information on operator processes for aircraft tracking can be found in the Aircraft Tracking Implementation Guidelines (Circular 347).*

1.2.3 Operators should provide and maintain up-to-date their operational contact details in the ICAO OPS Control Directory (OPS CTRL) to facilitate contact between operators and ATS units when responding to a tracking related event.

Note.— The OPS CTRL can be accessed at: [www.icao.int/safety/globaltracking](http://www.icao.int/safety/globaltracking).

## Appendix to Chapter 1

### Aircraft tracking missed position report message template

<p><b>Aircraft tracking missed position report message</b></p> <p><b>From:</b> _____</p> <p><b>To:</b> _____</p> <p><b>This message provides information regarding potential uncertainty as to the safety of an aircraft. This is a request for action to resolve this uncertainty.</b></p> <p><b>Please contact _____ at _____ with details of action taken.</b></p>	
<b>Required information</b>	
1.	Initial or subsequent notification indication
2.	Aircraft identification in Field 7 of filed flight plan
3.	Aircraft type
4.	Last known position (Time, Latitude and Longitude or bearing and range)
5.	Time of last communication
6.	Last known flight level or altitude
7.	Next expected position (if known), and estimate
8.	Name of air traffic services unit notified
9.	Name of operator
10.	Contact details of operator primary point of contact for this event
<b>Supplementary information, if available</b>	
11.	Contact actions attempted, including frequency channels and SATCOM numbers
12.	Aircraft registration (if different from aircraft identification in 2 above)
13.	Information contained in Item 19 of the filed flight plan
14.	If not included in 13 above, fuel endurance or fuel endurance remaining at last known position
15.	Total persons on board
16.	Alternate or possible alternates
17.	Any other relevant information (e.g. dangerous goods on board, etc.)

*Note.— Contact details for ANSPs and operators can be obtained from the OPS CTRL directory, accessed at [www.icao.int/safety/globaltracking](http://www.icao.int/safety/globaltracking).*

## DISTRESS TRACKING

### Chapter 2

## LOCATION OF AN AIRCRAFT IN DISTRESS

### 2.1 GENERAL

The following provisions are applicable to operators required to make position information of an aircraft in distress available, in accordance with Annex 6, Part I, 6.18 – *Location of an aeroplane in distress*.

### 2.2 OPERATOR RESPONSIBILITIES

2.2.1 The operator shall ensure that the Location of an Aircraft in Distress Repository (LADR) is automatically updated with position information from an aircraft in a distress condition.

*Note 1.— Guidance on the format and means to update the information in the LADR is contained in the Functional Specifications for the Location of an Aircraft in Distress Repository (LADR) (Doc 10150).*

*Note 2.— An aircraft is considered to be in a distress condition when it is in a state that, if the aircraft behaviour event is left uncorrected, can result in an accident.*

2.2.2 The operator shall ensure that they have established and documented:

- a) a training programme for flight operations officers/flight dispatchers, or other personnel nominated by the operator for the control and supervision of flights, on the use of the autonomous distress tracking (ADT) services and functionalities;
- b) procedures for the monitoring of information received from the ADT system, including actions to be taken in the event of a notification of a distress condition; and
- c) policy and procedures for the flight crew manual activation function.

*Note 1.— Further information for autonomous distress tracking can be found in the Manual on Location of Aircraft in Distress and Flight Recorder Data Recovery (Doc 10054).*

*Note 2.— For more information on distress conditions, see the Manual on Location of Aircraft in Distress and Flight Recorder Data Recovery (Doc 10054).*

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