

**COVER SHEET TO AMENDMENT 42**

**INTERNATIONAL STANDARDS  
AND RECOMMENDED PRACTICES**

# **AERONAUTICAL INFORMATION SERVICES**

**ANNEX 15  
TO THE CONVENTION ON INTERNATIONAL CIVIL AVIATION**

**SIXTEENTH EDITION — JULY 2018**

**INTERNATIONAL CIVIL AVIATION ORGANIZATION**

# Checklist of Amendments to Annex 15

	<i>Effective date</i>	<i>Date of applicability</i>
Sixteenth Edition (incorporates Amendments 1 to 40)	16 July 2018	8 November 2018
Amendment 41 (adopted by the Council 9 March 2020) Replacement pages( <i>xv</i> ), 1-9, 6-4, 6-5 and 6-6	20 July 2020	5 November 2020
Amendment 42 (adopted by the Council 19 June 2020) Replacement pages ( <i>xv</i> ) and 1-9	30 September 2020	4 November 2021



*Transmittal note*

Amendment 42

to the

International Standards and  
Recommended Practices

## AERONAUTICAL INFORMATION SERVICES

(Annex 15 to the Convention on International Civil Aviation)

1. The following replacement pages in Annex 15 (Sixteenth Edition) incorporate Amendment 42 which becomes applicable on 4 November 2021:
  - a) Page (xv) — Foreword
  - b) Page 1-9 — Chapter 1
2. These pages should be retained separately from the Annex proper until the applicability date is reached, at which time they should be incorporated into the Annex.
3. Record the entry of this amendment on page (iii).

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<i>Amendment</i>	<i>Source(s)</i>	<i>Subject(s)</i>	<i>Adopted Effective Applicable</i>
38	Instrument Flight Procedures Panel (IFPP)	Procedure design criteria and charting requirements to support performance-based navigation (PBN) as well as helicopter point-in-space (PinS) approach and departure operations.	3 March 2014 14 July 2014 13 November 2014
39-A (Fifteenth Edition)	Third meeting of the Aerodrome Panel (AP/3); twelfth meeting of the Instrument Flight Procedures Panel (IFPP/12); second meeting of the Operational Data Link Panel (OPLINKP/2)	Amendment concerning publication of information on runway end safety area (RESA) and arresting system in the AIP; en-route airway directional use restrictions; and performance-based communication and surveillance (PBCS) and satellite voice communications (SATVOICE).	22 February 2016 11 July 2016 10 November 2016
39-B	Friction Task Force (FTF) of the Aerodrome Design and Operations Panel (ADOP)	Amendment concerning the use of a global reporting format for assessing and reporting runway surface conditions.	22 February 2016 11 July 2016 5 November 2020
40 (Sixteenth Edition)	Twelfth meeting of the AIS-AIM Study Group (AIS-AIMSG/12); second meeting of the Meteorology Panel (METP/2)	Amendment concerning restructure of Annex 15 to facilitate incorporation of aeronautical information management (AIM) requirements; changes to the technical content of Annex 15 to facilitate the transition from AIS to AIM; and consequential amendment in support of space weather information.	9 March 2018 16 July 2018 8 November 2018
41	Various sources, including the Task Force on Risks to Civil Aviation arising from Conflict Zones (TF RCZ) (C-DEC 203/1) and the Secretariat.	Amendment concerning the improvement of the promulgation of information on hazardous activities to civil aviation through Notice to Airmen (NOTAM), also addressing the specific case of conflict zones activities potentially hazardous to civil aircraft.	9 March 2020 20 July 2020 5 November 2020
42	Eighth Meeting of the 220th Session of the ICAO Council	Postponement of the applicability date of Amendment 40 regarding the definition of SNOWTAM.	19 June 2020 30 September 2020 4 November 2021



**Restricted area.** An airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is restricted in accordance with certain specified conditions.

**Route stage.** A route or portion of a route flown without an intermediate landing.

**SNOWTAM.**<sup>†</sup> A special series NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format.

**SNOWTAM.**<sup>‡</sup> A special series NOTAM given in a standard format providing a surface condition report notifying the presence or cessation of hazardous conditions due to snow, ice, slush, frost, standing water or water associated with snow, slush, ice or frost on the movement area.

**Station declination.** An alignment variation between the zero degree radial of a VOR and true north, determined at the time the VOR station is calibrated.

**Terrain.** The surface of the Earth containing naturally occurring features such as mountains, hills, ridges, valleys, bodies of water, permanent ice and snow, and excluding obstacles.

**Traceability.** Ability to trace the history, application or location of that which is under consideration (ISO 9000\*).

*Note.— When considering product, traceability can relate to:*

*— the origin of materials and parts;*

*— the processing history; and*

*— the distribution and location of the product after delivery.*

**Validation.** Confirmation, through the provision of objective evidence, that the requirements for a specific intended use or application have been fulfilled (ISO 9000\*).

**Verification.** Confirmation, through the provision of objective evidence, that specified requirements have been fulfilled (ISO 9000\*).

*Note.— The term “verified” is used to designate the corresponding status.*

**VOLMET.** Meteorological information for aircraft in flight.

**Data link-VOLMET (D-VOLMET).** Provision of current aerodrome routine meteorological reports (METAR) and aerodrome special meteorological reports (SPECI), aerodrome forecasts (TAF), SIGMET, special air-reports not covered by a SIGMET and, where available, AIRMET via data link.

**VOLMET broadcast.** Provision, as appropriate, of current METAR, SPECI, TAF and SIGMET by means of continuous and repetitive voice broadcasts.

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<sup>†</sup> Applicable until 3 November 2021.

<sup>‡</sup> Applicable as of 4 November 2021.

## 1.2 Common reference systems for air navigation

### 1.2.1 Horizontal reference system

1.2.1.1 The World Geodetic System — 1984 (WGS-84) shall be used as the horizontal (geodetic) reference system for international air navigation. Consequently, published aeronautical geographical coordinates (indicating latitude and longitude) shall be expressed in terms of the WGS-84 geodetic reference datum.

*Note.*— *Comprehensive guidance material concerning WGS-84 is contained in the World Geodetic System — 1984 (WGS-84) Manual (Doc 9674).*

1.2.1.2 **Recommendation.**— *In precise geodetic applications and some air navigation applications, temporal changes in the tectonic plate motion and tidal effects on the Earth's crust should be modelled and estimated. To reflect the temporal effect, an epoch should be included with any set of absolute station coordinates.*

*Note 1.*— *The epoch of the WGS-84 (G873) reference frame is 1997.0 while the epoch of the latest updated WGS-84 (G1150) reference frame, which includes a plate motion model, is 2001.0. (G indicates that the coordinates were obtained through Global Positioning System (GPS) techniques, and the number following G indicates the GPS week when these coordinates were implemented in the United States' National Geospatial-Intelligence Agency's precise ephemeris estimation process.)*

*Note 2.*— *The set of geodetic coordinates of globally distributed permanent GPS tracking stations for the most recent realization of the WGS-84 reference frame (WGS-84 (G1150)) is provided in Doc 9674. For each permanent GPS tracking station, the accuracy of an individually estimated position in WGS-84 (G1150) has been in the order of 1 cm ( $1\sigma$ ).*

*Note 3.*— *Another precise worldwide terrestrial coordinate system is the International Earth Rotation Service (IERS) Terrestrial Reference System (ITRS), and the realization of ITRS is the IERS Terrestrial Reference Frame (ITRF). Guidance material regarding the ITRS is provided in Appendix C of Doc 9674. The most current realization of WGS-84 (G1150) is referenced to the ITRF 2000 epoch. WGS-84 (G1150) is consistent with ITRF 2000 and in practical realization the difference between these two systems is in the one to two centimetre range worldwide, meaning WGS-84 (G1150) and ITRF 2000 are essentially identical.*

### 1.2.2 Vertical reference system

1.2.2.1 Mean sea level (MSL) datum shall be used as the vertical reference system for international air navigation.

*Note 1.*— *The geoid globally most closely approximates MSL. It is defined as the equipotential surface in the gravity field of the Earth which coincides with the undisturbed MSL extended continuously through the continents.*

*Note 2.*— *Gravity-related heights (elevations) are also referred to as orthometric heights while distances of points above the ellipsoid are referred to as ellipsoidal heights.*

1.2.2.2 The Earth Gravitational Model — 1996 (EGM-96) shall be used as the global gravity model for international air navigation.

1.2.2.3 At those geographical positions where the accuracy of EGM-96 does not meet the accuracy requirements for elevation and geoid undulation on the basis of EGM-96 data, regional, national or local geoid models containing high resolution (short wavelength) gravity field data shall be developed and used. When a geoid model other than the EGM-96 model is used, a description of the model used, including the parameters required for height transformation between the model and EGM-96, shall be provided in the Aeronautical Information Publication (AIP).

*Note.*— *Specifications concerning determination and reporting (accuracy of field work and data integrity) of elevation and geoid undulation at specific positions at aerodromes/heliports are given in the PANS-AIM (Doc 10066), Appendix 1.*