

INTERNATIONAL CIVIL AVIATION ORGANIZATION

A United Nations Specialized Agency

ICAO updates



ICAO European and North Atlantic Office

ICAO State Letters and Amendments to ICAO Annexes



Reference #	Title and date issued				
2013/19	Adoption of Amendment 14 to Annex 13				
	28 March 2013				
2013/21	Approval of Amendment 5 to Annex 14, Volume II				
	28 March 2013				
2013/28	Adoption of Amendment 44 to Annex 2				
	15 April 2013				
2013/29	Adoption of Amendment 49 to Annex 11				
	15 April 2013				
2013/30	Adoption of Annex 19				
	08 April 2013				
2013/37	Approval of Amendments 5 and 5 to PANS-OPS, Volumes I and II, respectively				
	19 April 2013				
2013/39	Adoption of Amendment 76 to Annex 3				
	12 April 2013				
2013/40	Approval of Amendments 5 to PANS-ATM				
	30 April 2013				

ICAO State Letters and Proposed Amendments to ICAO Annexes



Reference #	Title and <i>date issued</i>				
2013/24	Proposal for the amendment of PANS-OPS, Volumes I and II regarding procedure design criteria and charting requirements to support performance-based navigation (PBN) as well as helicopter point-in-space (PinS) approach and departure operations with consequential amendments to Annexes 4; 6, Parts I, II and III; 14, Volume II; 15 and the PANS-ABC				
	14 June 2013				
2013/32	Proposal for the amendment of the Procedures for Air Navigation Services — Air Traffic Management (PANS-ATM, Doc 4444) relating to strategic lateral offset procedures				
	12 April 2013				
2013/33	Proposal for the amendment of Annex 1, concerning the upper age limit for pilots engaged in international commercial air transport				
	28 March 2013				
2013/34	Proposal for the amendment of Annex 10, Volume II, PANS-ATM and the PANS-OPS concerning ADS-B, CPDLC and in-trail procedure				
	10 May 2013				
2013/46	Proposal for the amendment of Annex 6, Parts I, II and III relating to harmonization of provisions, electronic flight bags (EFBs), fatigue management, dangerous goods, head-up displays (HUDs) and visions systems, and fuel use provisions				
	15 July 2013				
2013/55	Proposal for the amendment of Annex 13 relating to independence of accident and incident investigations, plus Corrigendum from 02 August 2013				
	19 July 2013				
2013/56	Proposals for the amendment of Annex 1, Annex 6, Part I and the PANS-TRG relating to upset prevention and recovery training				
	10 July 2013				

ICAO State Letters and Proposed Amendments to ICAO Annexes



Reference #	Title and <i>date issued</i>					
2013/58	Proposal for the amendment of Annex 17					
	02 July 2013					
2013/59	Proposals for the amendment of Annex 6, Parts I, II and III regarding carriage requirements of flight recorders, plus Corrigendum from 16 August 2013					
	05 July 2013					
2013/60	Proposals for the amendment of Annex 16, Volume II concerning Standards and Recommended Practices relating to environmental protection - Aircraft engine emissions					
	12 July 2013					
2013/61	Proposals for the amendment of Annex 16, Volume I concerning Standards and Recommended Practices relating to environmental protection – Aircraft noise					
	12 July 2013					
2013/57	ICAO Position for the ITU WRC-15					
	02 July 2013					
2013/62	Launch of an online Air Operator Certificate (AOC) register					
	02 July 2013					
IND/13/3	Establishment of the Air Traffic Management Operations Panel (ATMOPSP) and nomination of an expert					
	07 August 2013					

ICAO Annex 19

- The ICAO High-level Safety Conference 2010 recommendation 2/5 proposed the development of an Annex dedicated to Safety Management. The benefits identified of this approach included:
- Address safety risks proactively;
- Manage and support strategic regulatory and infrastructure developments;
- Re-enforce the role played by the State in managing safety at the State level, in coordination with service providers;
- Stress the concept of overall safety performance in all domains.





ICAO Amendment 5 to PANS ATM New Approach Classifications



- Amendment 5 to the PANS-ATM (State Letter AN 13/2.1-13/40) stems from proposals developed by the Secretariat and supported by the Approach Classification Task Force (ACTF) in coordination with the Aerodromes Panel (AP), the Instrument Flight Procedure Panel (IFPP), the Navigation Systems Panel (NSP) and the Operations Panel (OPSP), regarding new approach classification provisions
- The amendment to the PANS-ATM modifies the existing approach classification in a manner that will both simplify and more accurately describe the various types of approach and landing operations.
- The amendment ensures that all ICAO provisions are harmonized with respect to PBN and has the added benefit of optimizing runway requirements in relation to all approach operations (PBN and conventional)
- The implementation of this amendment is foreseen for **13 November 2014**

ICAO Amendment 5 to PANS ATM New Approach Classifications



3

2

TEXT OF AMENDMENT 5 TO THE

PROCEDURES FOR AIR NAVIGATION SERVICES

AIR TRAFFIC MANAGEMENT

Chapter 1 DEFINITIONS

Decision altitude (DA) or decision height (DH). A specified altitude or height in the presision approach or approach with vertical guidances a D instrument approach operation at which a missed approach must be initiated if the required visual reference to continue the approach has not been established.

. . .

- Instrument approach operations. An approach and landing using instruments for navigation guidance based on an instrument approach procedure. There are two methods for executing instrument approach operations:
 - a) a two-dimensional (2D) instrument approach operation, using lateral navigation guidance only; and
 - b) a three-dimensional (3D) instrument approach operation, using both lateral and vertical navigation guidance.
- Note.— Lateral and vertical navigation guidance refers to the guidance provided either by:
 - a) a ground-based radio navigation aid; or
 - b) computer-generated navigation data from ground-based, space-based, self-contained navigation aids or a combination of these.
- Instrument approach procedure (IAP). A series of predetermined manoeuvres by reference to flight instruments with specified protection from obstacles from the initial approach fix, or where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, if a landing is not completed, to a position at which holding or en-route obstacle clearance criteria apply. Instrument approach procedures are classified as follows:
 - Non-precision approach (NPA) procedure. An instrument approach procedure which utilizes lateral guidance-designed for 2D instrument approach operations Type Abut does not utilize vertical suidance.

Note— Non-precision approach procedures may be flown using a continuous descent final approach technique (CDFA). CDFA with advisory VNAV guidance calculated by on-board equipment (See PANS-OPS (Doc 8168), Volume 1, Part 1, Section 4, Chapter 1, pargraph 1.8.1) are considered 3D instrument approach operations. CDFA with mamual calculation of the required rate of descent are considered 2D instrument approach operations. For more information on CDFA refer to Section 1.7 and 1.8.

- Approach procedure with vertical guidance (API). An–A performance-based navigation (PBN) instrument approach procedure which utilizes lateral and vertical guidance-designed for 3D instrument approach operations Type Abut does not meet the requirements established for precision approach and landing operations.
- Precision approach (PA) procedure. An instrument approach procedure-using precision lateral and vortical guidance with minima-as-determined by the category of operation based on navigation systems (ILS, MLS, GLS and SBAS Cat I) designed for 3D instrument approach operations Type A or B.

Note. Lateral and vertical guidance refers to the guidance provided either by:

a) a ground based navigation aid; or

b) computer generated navigation data.

Note .— Refer to Annex 6 for instrument approach operation types.

Obstacle clearance altitude (OCA) or obstacle clearance height (OCH). The lowest altitude or the lowest height above the elevation of the relevant runway threshold or the aerodrome elevation as applicable, used in establishing compliance with appropriate obstacle clearance criteria.

Note 1.— Obstacle clearance altitude is referenced to mean sea level and obstacle clearance height is referenced to the threshold elevation or in the case of non-precision approaches approach procedures to the aerodrome elevation or the threshold elevation if that is more than 2 m (7 ft) below the aerodrome elevation. An obstacle clearance height for a circling approach procedure is referenced to the aerodrome elevation.

Note 2.— For convenience when both expressions are used they may be written in the form "obstacle clearance altitude/height" and abbreviated "OCA/H".

-END-

ICAO New Approach Classifications



- New definitions do not modify any ICAO Provision
- Coherence across all ICAO Documentation (approach operations and runway requirements in Annex 2, 10, 14 and PANS OPS), compatibility retained
- A systematic performance based approach



ICAO Annex 6 New Approach Classifications



Approach Operations

- Makes Approach Classification a Standard rather than a definition
- Adjusts definitions and provisions accordingly
- CAT I, II & III specifications remain intact
- Introduces Approach Classification Types (A & B)
- Disassociates the type of Navigation System from the Approach Category
- Performance Based Approach
 - Removes the terms Non Precision, APV & Precision from the operation
- The Approach Classification is not sensor specific, instead it is based on the point from which visual references are required
- Baseline for future operational enhancements
 - Head Up Displays (HUD), Enhanced Vision Systems (EVS), Synthetic Vision Systems (SVS)

ICAO Annex 6 New Approach Classifications



- Clear distinction between
 - Procedures versus Operations
 - Procedure: the procedure is the instrument flight procedure allowing an aircraft to navigate on the final approach down to a given OCH, relying on a given type of Navigation infrastructure
 - Operation: is the manner in which an aircraft is conducted to operate on a procedure
- The new ICAO classification focusses solely on the Operations side and is based on :
 - Minima
 - Flight Method

- Approach operations are classified according to the designed lowest operating minima of an approach procedure
 - Type A: Instrument approach operation 250' or above
 - Type B: Instrument approach operation below 250'
- Flight method for executing an approach operation.



2D lateral guidance only



3D lateral guidance and vertical guidance

ICAO Annex 14 New Approach Classifications



- Facilitates all type of approaches operations
- Performance-based approach for RWY infrastructure, function of published minima
 - Type A Operations only require the Non-precision RWY infrastructure and related visual aids.
 - All Type B Operations will require a Precision RWY infrastructure and related visual aids.
- Allows for instrument approaches to non-instrument runways
 - Point-in-space instrument procedure principle
- Facilitates new implementation strategies

ICAO New Approach Classifications



ICAO Approach Classification										
Domain	Document			Relation	onship					
Approach Operations	Annex 6		Туре А		Туре В					
		Classification (based minima)	(250' or higher)		CAT I (less than 250' & 200' or higher)	CAT II (less than 200' & 100' or higher)	CAT III (less than 100')			
		Method	2D	3D						
		Minima	MDA/H		DA/H*					
Approach Runways	Annex 14	M(DA/H) >= VMC	Non Instrur	ment RWY						
		M(DA/H) >= 250' Visibility >= 1000m	Non Precision Approach RWY							
		DA/H >= 200' RVR >= 550m	Precision Approach RWY, Category I							
		DA/H >= 100' RVR >= 300m	Precision Approach RWY, Category II							
		DA/H >= 0' RVR >= 0m	Precision Approach RWY, Category III (A, B & C)							
System Performance Procedures	Annex 10	NPA	NDB, Lctr, LOC, VOR, Azimuth, GNSS							
	PANS-OPS Vol. II	APV		GNSS/Baro/SBAS						
		PA			ILS, MLS, SBAS Cat I, GBAS					
NPA procedures require a derived DA/H										

12 September 2013

Approach Classification

A tool for Aerodromes





Approach Classification *A tool for Aerodromes*





Transition Considerations



- Four main concerns analyzed:
 - Pilot/ATCO communication
 - Chart/Ops Approval mismatch
 - Chart/Flight Plan mismatch
 - Chart/Avionics mismatch
- Avionics issue would continue for some aircraft until retired.





ICAO Assembly 38th Session



- The ICAO Assembly is the Organization's sovereign body. It meets at least once every three years and is convened by ICAO's governing body, the Council
- ICAO's 191 Member States and a large number of international organizations are invited to the Assembly, which establishes the worldwide policy of the Organization for the upcoming triennium 2014-2016
- During Assembly Sessions, ICAO's complete work programme in the technical, economic, legal and technical cooperation fields is reviewed in detail
- Key Items
 - Endorsement of the Global Aviation Safety Plan
 - Endorsement of the Global Air Navigation Plan (ASBUs)
 - Endorsement of ICAOs 5 Strategic Objectives
 - Safety
 - Air Navigation Capacity and Efficiency
 - Security and Facilitation
 - Economic Development of Air Transport
 - Environmental Protection



ICAO Conferences and Meetings



 Showcase of Electronic Tools (SET13), Montreal (Canada), 23 September 2013



- 38th Session of the ICAO Assembly, Montreal (Canada), 24 Sep - 04 Oct 2013
- ATM Advanced techniques symposium, UNITING AVI. for saving fuel and reducing emissions, Montreal (Canada), 04 - 06 November 2013
- Regional Runway Safety Seminars
 - Istanbul (Turkey) from 06 to 08 November 2013
 - Kuala Lumpur (Malaysia) from 18 to 20 November 2013







