European Union Aviation Safety Agency

Airspace Usage Requirements - PBN (Performance-based navigation)

What is the geographical scope of the PBN IR? In what airspace does the Regulation apply?

Answer

The PBN IR introduces the gradual implementation of PBN flight procedures to support safer, greener, and more efficient aircraft operations. The Regulation is binding in its entirety and directly applicable in all European Union (EU) Member States. More concretely, it applies in the airspace described in points (a) and (b) of Article 1(2), i.e.:

1. over the territory where the Treaty on the Functioning of the European Union (TFEU) applies;
2. in any other airspace where Member States are responsible for the provision of air traffic services (ATS) within the ICAO EUR and AFI regions.
   Member States may also apply the PBN IR in other ICAO regions, on condition that they inform the Commission and the other Member States.

The PBN IR may already apply or become applicable in other States with which the EU has signed binding agreements that require compliance with EU legislation in the field of civil aviation or its transposition into national law, e.g., European Economic Area (EEA), European Free Trade Area (EFTA), and the European Common Aviation Area (ECAA) Agreements. In this regard, the PBN is already binding in all EASA Member States and will equally apply in the Western Balkans, i.e., Albania, Bosnia and Herzegovina, North Macedonia, Montenegro, Serbia and Kosovo (without prejudice to positions on status, which is in line with UN Security Council Resolution 1244(1999) and the International Court of Justice Opinion on the Kosovo Declaration of Independence).

In addition, the PBN IR applies in several overseas territories (see the TFEU) and in a number of other overseas territories where special arrangements for association apply. To find out more about the status of applicability in a particular airspace, it is recommended to contact the Aviation Authorities of the State concerned.

Last updated:
24/03/2022

Link:
https://www.easa.europa.eu/en/faq/134929

Can conventional navigation procedures be used after 6 June 2030?

Answer

The PBN IR expressly excludes the use of conventional navigation procedures as from 6 June of 2030, except in the event of PBN contingencies, i.e., situations where, for unexpected reasons beyond the control of ATM/ANS service providers, GNSS or other methods used for performance-based navigation are no longer available.

From 6 June 2030, PBN will be the normal means of navigation, supplemented with navigation supported by CAT II/III landing systems, where necessary.

Last updated:
19/01/2022

Link:
https://www.easa.europa.eu/en/faq/134930

Is EGNOS the only SBAS to be considered for the implementation of RNP APCH procedures down to LPV minima?

Answer

The PBN IR requires implementation of approach procedures to LPV minima on condition that they are within an appropriate SBAS coverage provided by a certified service provider.

European Geostationary Navigation Overlay Service (EGNOS) is mentioned as a possibility, as the SBAS coverage may be available through other augmentation systems due to geographical considerations. In this regard, Recital (5) states the following: *"the use of satellite-based augmentation systems (SBAS), in particular in the form of the European Geostationary Navigation Overlay Service (EGNOS), should be promoted"*.

Since the PBN IR requirements are generic, they do not limit the deployment to areas where EGNOS coverage exists.

The guidance material published by EASA (Annex II to ED Decision 2018/013/R) refers to EGNOS, as the navigation service provider has been certified by EASA and the service covers most of the locations where the PBN IR applies.

Last updated:

24/03/2022

Link:

https://www.easa.europa.eu/en/faq/134935

Does the PBN IR require the publication of SBAS approach procedures down to CAT I minima (LPV-200)? Are higher LPV minima acceptable?

Answer

The PBN IR requires the publication of localiser performance with vertical guidance (LPV) minima, without an explicit reference to category I (CAT I) minima.

The publication of 3D approach procedures based on SBAS may not enable precision approach operations down to CAT I minima at all locations. In this regard, the actual LPV minima will depend on the performance of the SBAS service around the aerodrome (i.e., availability of the EGNOS APV-I or LPV-200 service level), the aerodrome infrastructure, and the application of the flight procedure design criteria.

Last updated:

24/03/2022

Link:

https://www.easa.europa.eu/en/faq/134931

Are CAT I approach procedures to be based solely on SBAS as from 6 June 2030? Can landing systems (ILS/GLS) still be used to enable CAT I approach operations after the deadline?

Answer

As the PBN IR requires exclusive use of PBN after 6 June 2030, SBAS will be the normal means to enable approach operations to CAT I minima. A minimum number of the existing instrument landing systems (ILS) will continue to enable operations to CAT I minima in the event of PBN contingencies, which, in this case, refer to situations where, for unexpected reasons beyond the control of ATM/ANS service providers, SBAS approaches are no longer available.

GBAS landing systems (GLS) CAT I procedures are out of the scope of the PBN IR, since they are neither PBN nor conventional approach procedures; hence, GLS CAT I procedures can be used in normal conditions and without limitations after 6 June 2030.

Last updated:

24/03/2022

Link:

https://www.easa.europa.eu/en/faq/134933

Are helicopter-only procedures required at heliports?

Answer

Landing surfaces other than instrument runways are not addressed by the PBN IR. In this regard, heliports having their own landing areas to operate, i.e., FATO and TLOF, rather than runways, are not within scope of the PBN IR. Instrument approach procedures, standard instrument departures (SID) and standard arrival routes (STAR) at heliports are excluded from the PBN IR, and, therefore, there are no specific requirements for CAT H procedures at locations where there are no instrument runways, i.e., locations dedicated to helicopter-only operations.

Last updated:

24/03/2022

Link:

https://www.easa.europa.eu/en/faq/134936

Are specific approach procedures for helicopters (CAT H approach procedures) required by the PBN IR?

Answer

It should be noted that helicopters may approach down to instrument runways by using instrument approach procedures designed for CAT A aeroplanes. Additionally, at the same runway where aeroplanes operate, specific procedures designed for helicopters and designated as CAT H may be available. Where helicopter-only procedures (CAT H) are available to approach a runway, these are normally designed and authorised for airspeeds lower than those established for Category A aeroplanes to take advantage of helicopter capabilities. In those cases, Category H procedures should not be promulgated on the same charts as joint helicopter/aeroplane procedures.

When helicopters operate down to the same instrument runways as aeroplanes, the corresponding flight procedures (CAT A or CAT H) are addressed by the PBN IR and should be compliant by the 2020 or the 2024 deadline, as applicable.

Last updated:

24/03/2022

Link:

https://www.easa.europa.eu/en/faq/136254

How does the repeal of COMMISSION IMPLEMENTING REGULATION (EU) No 716/2014 impact the implementation of PBN in the single European sky?

Answer

The repeal of Regulation (EU) No 716/2014 (the 'PCP Regulation') resulted in the deletion of the ATM functionality No1 (AF#1) with a view to avoiding inconsistencies and duplication of PBN requirements in the European Union's legislation. Consequently, the PBN IR has become the only PBN regulatory reference in the EU.

The repeal brings additional flexibility for planning purposes, as implementers of standard instrument departures (SID) and standard arrival routes (STAR) in terminal manoeuvring areas (TMA), previously referred to in the PCP Regulation, can now choose between RNP 1 routes and RNAV 1 routes, depending on local performance needs. In addition, the implementation of arrival and departure routes within the terminal airspace of the airports referred to in point 1.2.1 of the Annex to Regulation (EU) No 716/2014 (known as PCP airports) is subject to the same deadlines as any other aerodrome targeted by the PBN IR. Hence, the implementation of SID and STAR at PCP airports can take place gradually, i.e., it should also start with the replacement of, at least, one established arrival/departure route by 25 January 2024 and finish with the replacement of all routes with RNAV 1 or RNP 1 routes by 6 June 2030, except if retained in support of PBN contingencies, i.e., except in situations where, for unexpected reasons beyond their control, PBN SID and STAR are no longer available.

As for PBN approaches at PCP airports runways, implementation of procedures in accordance with the requirements of the RNP approach (RNP APCH) specification can be postponed until 25 January 2024.

Last updated:

24/03/2022

Link:

https://www.easa.europa.eu/en/faq/134937