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***PBN and the collaborative
approach to deliver a rules
framework***

Lydia Randall - Project Manager, PBN

What we'll cover

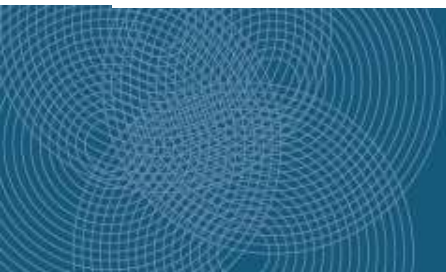
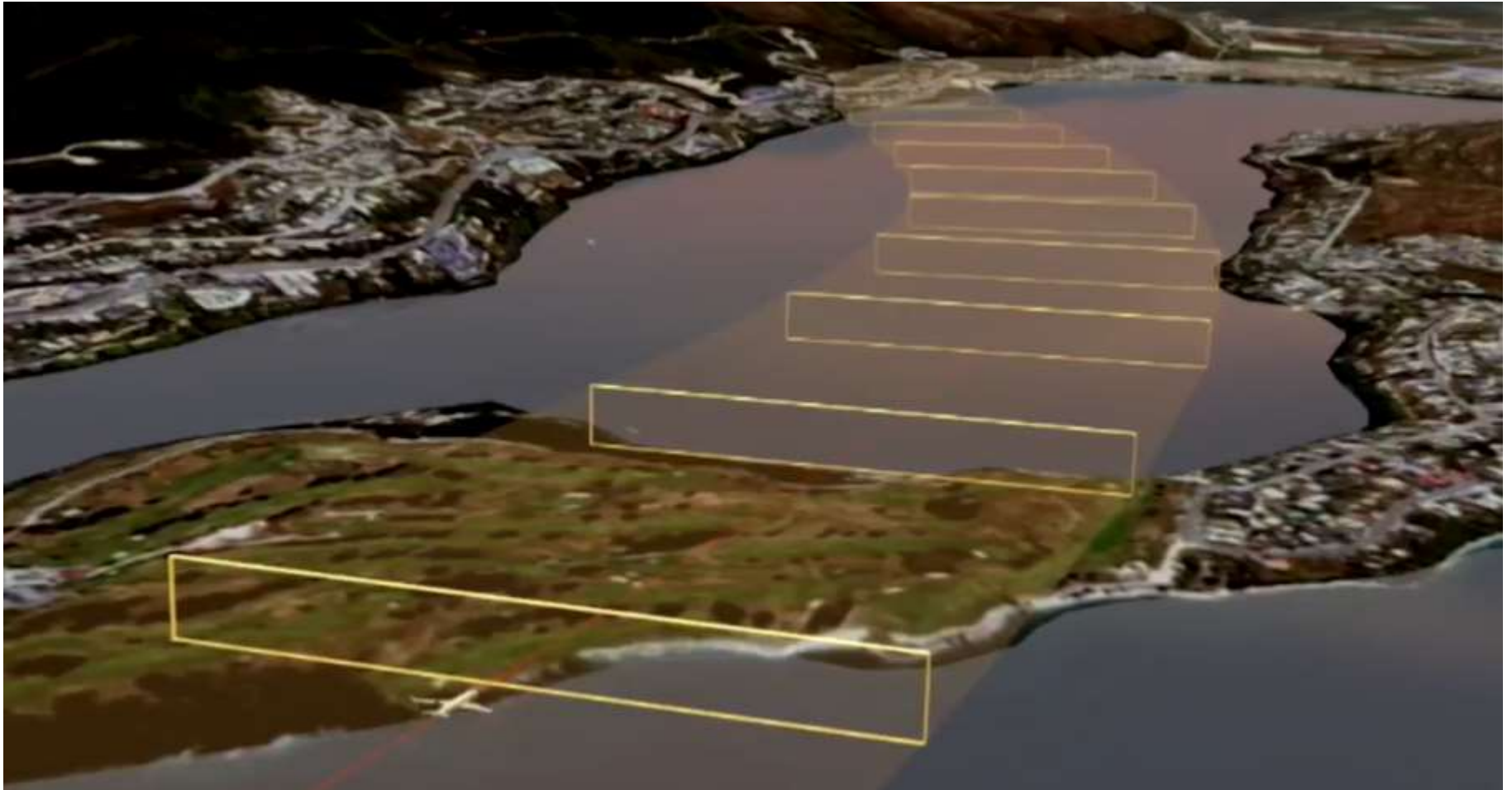
Performance Based Navigation

- What
- Why
- 2023 vision

PBN Regulatory change

- Why
- How
- Improvements

What is PBN



Why PBN?

AINonline BUSINESS AVIATION BIZAV AIR TRANSPORT DEFENSE ROTORCRAFT PODCAST

EASA Proposes New Requirements for PBN Operations

by Gordon Gilbert - March 2, 2015, 6:59 AM



The European Aviation Safety Agency (EASA) has issued a *Notice of Proposed Amendment (NPA)* updating the requirements and introducing new conditions enabling aircraft to obtain approval for performance-based navigation (PBN) operations. The new sections are specifically dedicated to support global PBN operations, as well as provide an acceptable means of compliance (AMC) and guidance material.

Specifically, this NPA contains an update of the certification specifications for communications, navigation, and surveillance (CNS), which primarily incorporates the certification criteria related to the use of airworthiness and interoperability standards in support of PBN implementation, as well as other minor amendments to the requirements published in Decision 2013.

In addition to providing a certification basis that will allow aircraft operators to benefit from the implementation of PBN routes and procedures, the proposed amendments are expected to facilitate global PBN objectives and to simplify the certification process for both the applicants and EASA. Also, these additions ensure conformity with the performance requirements and functionalities that stem from ICAO's RNP navigation specifications.

As the EASA proposal incorporates all the PBN certification requirements into a single certification specification, this NPA aims to cancel previous AMCs for new applications. As regards RNAV 1, Joint Airworthiness Authority temporary guidance leaflet 10, EASA will no longer recognize Rev. 1 for type certifications after the publication of the proposed revisions. Comments on the NPA are due April 30, 2015.

REGULATIONS AND GOVERNMENT

There are no comments yet, please Login or Register to begin a discussion.



Global PBN Deployment Arrives in Middle East

By Woodrow Bellamy III | October 7, 2015
Send Feedback

[Avionics Today 10-07-2015] Oman Air is using Performance Based Navigation (PBN) to simplify approaches into an airport with one of the most challenging terrains in its network, thanks to new procedure work performed by Hughes Aerospace and Honeywell. The national airline of Oman is currently flying the first Area Navigation (RNAV) approaches to be deployed in the region at Khasab Airport.



...airway where Oman Air is now flying RNAV visual approaches. Photo: Hughes

PERFORMANCE-BASED NAVIGATION (PBN) Operations Plan
June 2017

NAV CANADA



Delays reduced from **40** hours to **5** hours per month

PBN Vision 2023



Advisory Circular AC91-21

Revision 0.3

5 September 2016

RNAV 1, RNAV 2, RNP 1, RNP 2, RNP APCH
and BARO VNAV—Operational Approvals

General

Civil Aviation Authority advisory circulars contain guidance and information about standards, practices, and procedures that the Director has found to be an acceptable means of compliance with the associated rules and legislation.

However the information in the advisory circular does not replace the requirement for participants to comply with their own obligations under the Civil Aviation Rules, the Civil Aviation Act 1990 and other legislation.

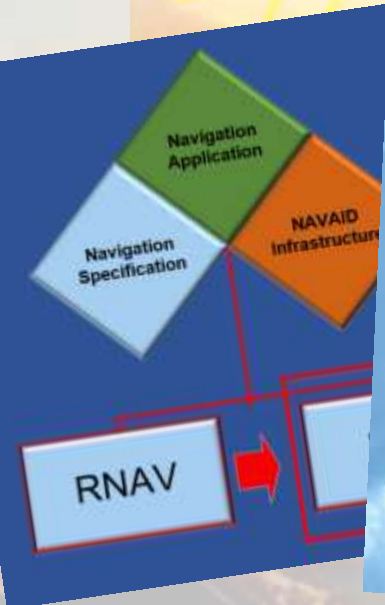
An advisory circular reflects the Director's view on the rules and legislation. It expresses CAA policy on the relevant matter. It is not intended to be definitive. Consideration will be given to other methods of compliance that may be presented to the Director. When new standards, practices, or procedures are found to be acceptable they will be added to the appropriate advisory circular. Should there be any inconsistency between this information and the rules or legislation, the rules and legislation take precedence.

An advisory circular may also include guidance material generally, including guidance on best practice as well as guidance to facilitate compliance with the rule requirements. However, guidance material must not be regarded as an acceptable means of compliance.

An advisory circular may also include technical information that is relevant to the standards or requirements.

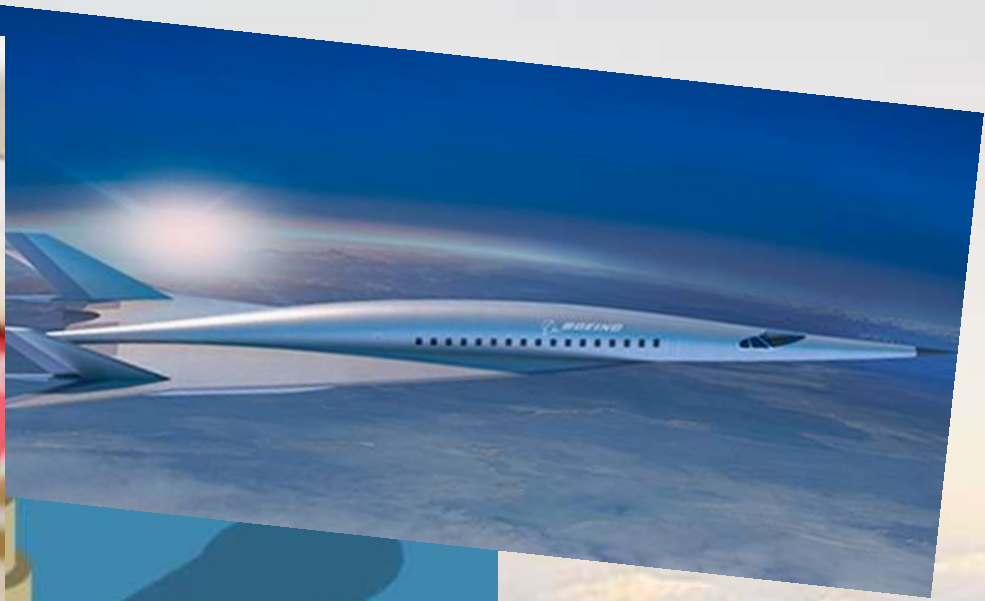
Purpose

This advisory circular provides an acceptable means of compliance with the airworthiness design standards and operating procedures required to obtain approval by the Director to conduct Performance Based Navigation (PBN) operations under RNP 1, RNP 2, RNAV 1, RNAV 2, RNP APCH and BARO VNAV within New Zealand. Approval by the Director may be granted upon satisfactory assessment of the aircraft navigation system and documented operator procedures, and confirmation of the training and qualification of pilots.



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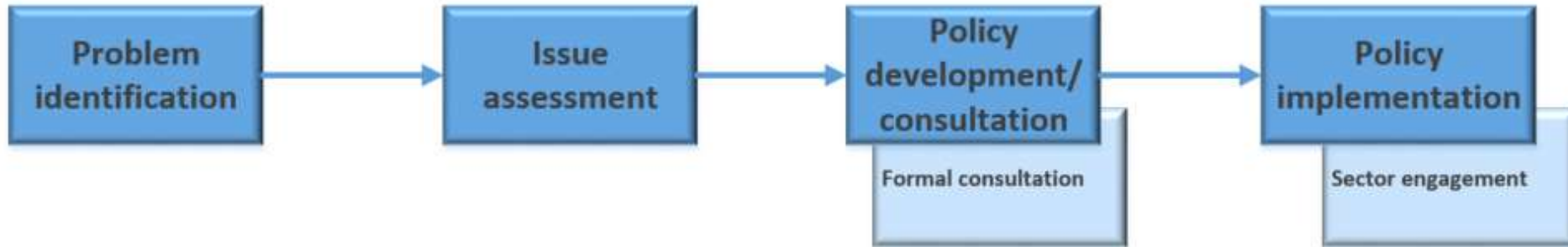
Why are the rules changing



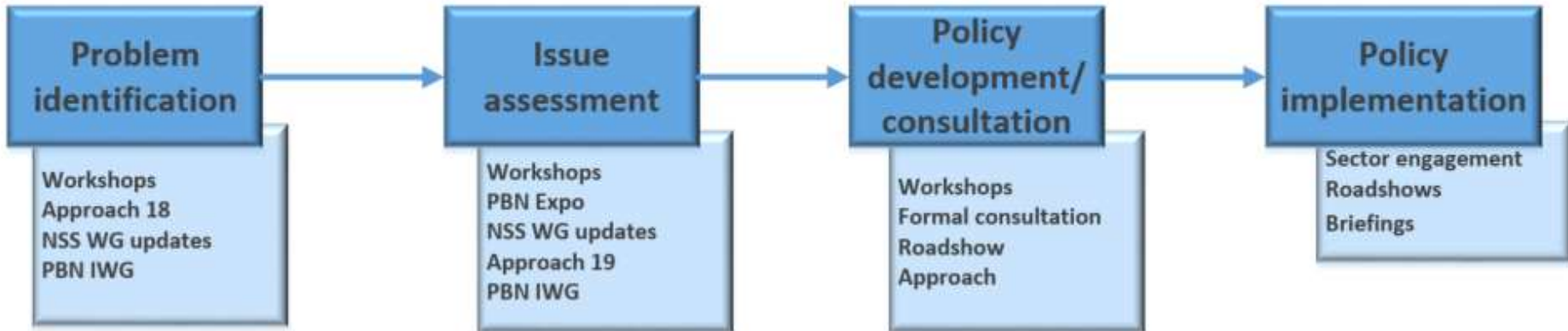
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The Approach

Sector Engagement and the Standard Policy and Rule Making Process



Sector Engagement and the PBN Rules Framework Policy and Rule Making Process (under NSS)



Why engage early?

- Understanding operational impacts
- Feedback
- Smoothing the formal consultation process
- **Knowledge gaps**

Are we practicing what we preach?



RidgeAir with support from New Southern Sky hit the road in November, visiting Part 135 and Part 91 IFR operators to discuss Performance Based Navigation.

Hear advice from operators who attended the discussions.



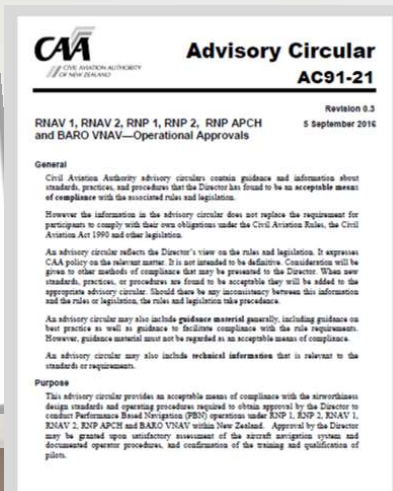
PBN Expo 2018: What we learnt



- AC 91-21
- SOPs
- Approval process - cost and time to approve
- Engagement
- Alternate requirements



PBN Expo 2018: What we're doing



- AC 91-21 amendment
 - Simplification of information
 - Smoothing the approval process

Standard Operating Procedures

- Release of guidance material
- Further engagement required on operational impacts



Areas of improvement

