

International Civil Aviation Organization

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PERFORMANCE-BASED NAVIGATION (PBN) MANUAL (DOC 9613)

- 1. Performance-based navigation (PBN) has a high priority in ICAO as it forms the cornerstone for air traffic management (ATM) optimization programmes, resulting in increased safety, airspace and fuel efficiency as well as environmental benefits. Key in PBN is the *Performance-based Navigation (PBN) Manual* (Doc 9613) which forms a practical tool for States, providing guidance for the harmonized implementation of area navigation and required navigation performance (RNP) routes and approach operations. States and industry are anxious to implement these operations in order to improve safety and efficiency. This guidance will encourage implementation of this technology in a timely manner by all member States.
- 2. This manual consists of two volumes:
 - a) Volume I Concept and Implementation Guidance; and
 - b) Volume II *Implementing RNAV and RNP Operations*.

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- 3. The latest edition contains three new navigation specifications: RNP 2, Advanced RNP and RNP 0.3. The RNP APCH navigation specification has been upgraded to include satellite-based augmentation system (SBAS) approach applications. Additional guidance concerning the implementation of fixed radius turns in RNP applications and operations approval for PBN has also been added. The RNP 0.3 navigation specification is primarily aimed at rotorcraft operations, where it will enable improved access. The Advanced RNP navigation specification is intended as the future single PBN aircraft qualification for all applications. RNP 2 will allow closer route spacing in oceanic/remote and continental en-route airspace.
- 4. In an effort to facilitate distribution of the required technical information to those experts who are involved in the implementation of the performance-based navigation programme, the unedited version of Doc 9613 is now available on the ICAO secure website at http://portal.icao.int/.
- 5. Technical experts, including service providers, regulators and manufacturers, will be able to quickly avail themselves of the much needed safety-critical guidance material which in turn will expedite implementation of the performance-based navigation programme.
- 6. For additional guidance on PBN implementation, States may wish to consider attending the PBN Symposium and workshops to be held in Montréal from 16 to 19 October 2012 where a full PBN implementation kit will be provided. Details on the symposium can be found at: http://www.icao.int/Meetings/PBN-Symposium/.

Issued under the authority of the Secretary General

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