



International Civil Aviation Organization

**THE SEVENTH MEETING OF PERFORMANCE BASED NAVIGATION
IMPLEMENTATION COORDINATION GROUP (PBNICG/7)**

(Video conference, 21 – 23 October 2020)

Agenda Item 4: States' PBN Implementation Progress

PBN IMPLEMENTATION IN THE MALDIVES

(Presented by Maldives)

SUMMARY

This paper presents the progress made by Maldives in implementing Performance Based Navigation (PBN)

1. INTRODUCTION

1.1 Maldives gave key priority to implement PBN as per ICAO Assembly Resolution A37-11 and successfully achieved the targets set for 2016, under PBN Implementation Plan.

The obvious economic and safety benefits were the major driving factors to pursue and successfully achieve the targets.

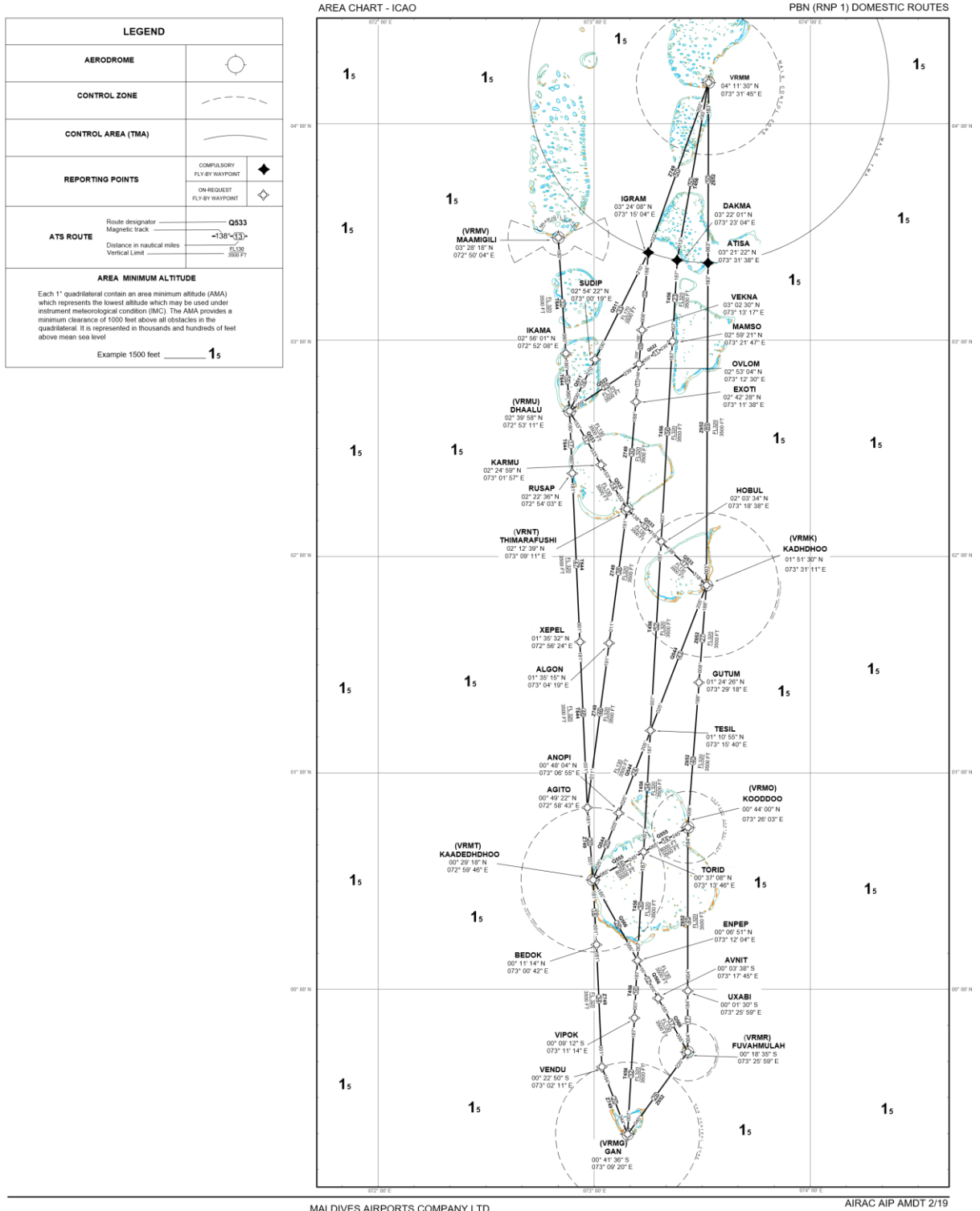
2. DISCUSSION

2.1 Maldives has published 22 RNP APCH procedures, 16 LNAV and 6 LANV/VNAV. Eight more procedures will be published for the newly developed domestic airports.

2.2 The process to change the identification of PBN instrument flight procedure approach charts from RNAV to RNP was completed in May 2019.

2.3 Since 2016, Maldives has stopped publishing NDB procedures; and there is no requirement to install or maintain NDBs.

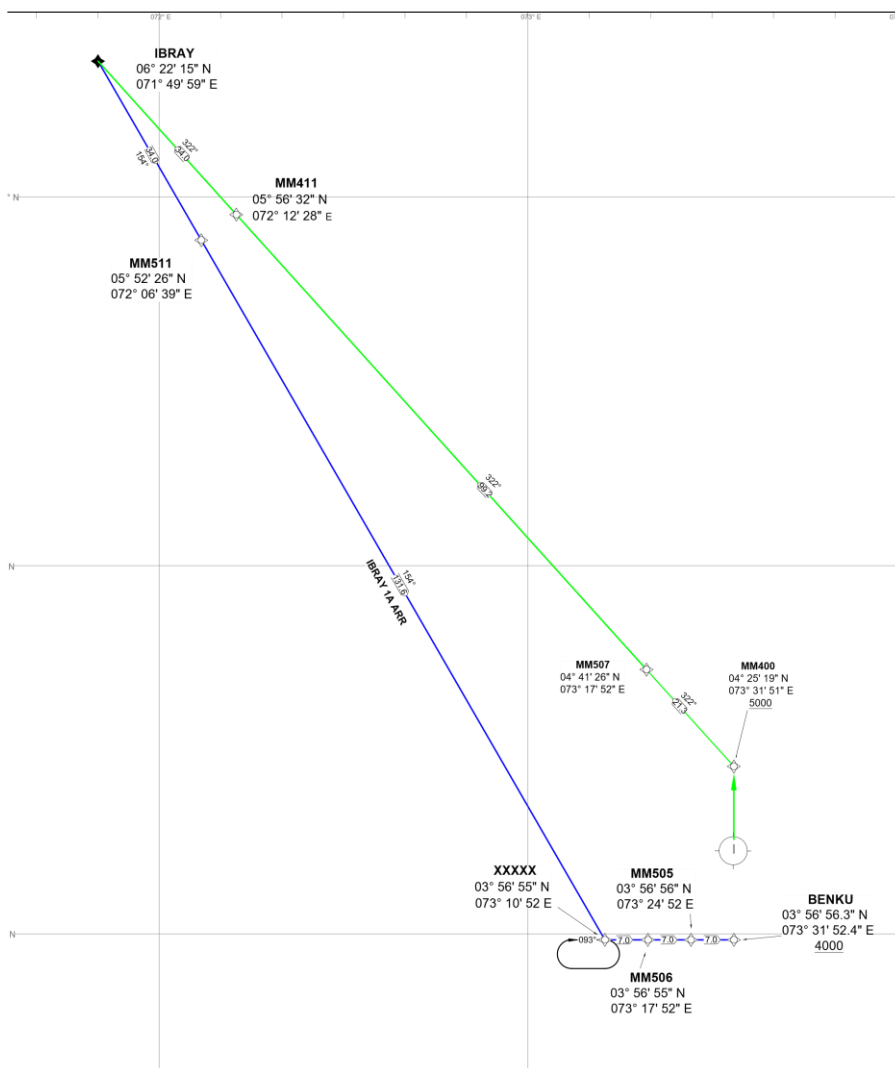
2.4 Maldives has published 10 domestic routes based on the RNP 1 navigation specification, to connect the airports in the South. This route network, together with the deemed separations, proved to be very effective for ATC to efficiently manage air traffic, even without any surveillance system or ground-based radio navigation aid.



2.5 Out of the 11 airports where instrument procedures have been published, only the two international airports have convectional VOR or ILS approach procedures. The instrument procedures at all other airports are based on GNSS.

CDO and CCO

- 2.6 All the Standard Arrival, Standard Departure and Approach procedures published in the Maldives facilitate CDO and CCO.
- 2.7 The STARs feature closed-path, seamlessly connecting arrivals from en-route to the approach. The SIDs connect departures from DER to the en-route.
- 2.8 Separate approach procedure is published for Runway 36 at VRMM to allow seamless transition from PBN STAR to ILS.
- 2.9 The current published STARs and SIDs are embedded within the 50NM TMA and as a result the full benefit of CDO/CCO have not been experienced specially with increase in traffic.
- 2.10 The new STARs and SIDs, which will come into effect with the new runway at VRMM, have been designed with greater emphasis on segregating arrivals and departures at top of descend or top of climb, thus enhancing CDO/CCO (pic).



(Extract from the draft)

3. ACTION REQUIRED BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matters as appropriate.
