



International Civil Aviation Organization

PBN Workshop (New Delhi, India, 9-12 May 2011)

PBN Implementation Seminar 2011 (New Delhi, India, 10-11 May 2011)

PBN/TF/8 (New Delhi, India, 12-13 May 2011)

New Delhi, India, 9 – 13 May 2011

PBN IMPLEMENTATION BARRIERS and SOLUTIONS for SMALL STATES – FIJI



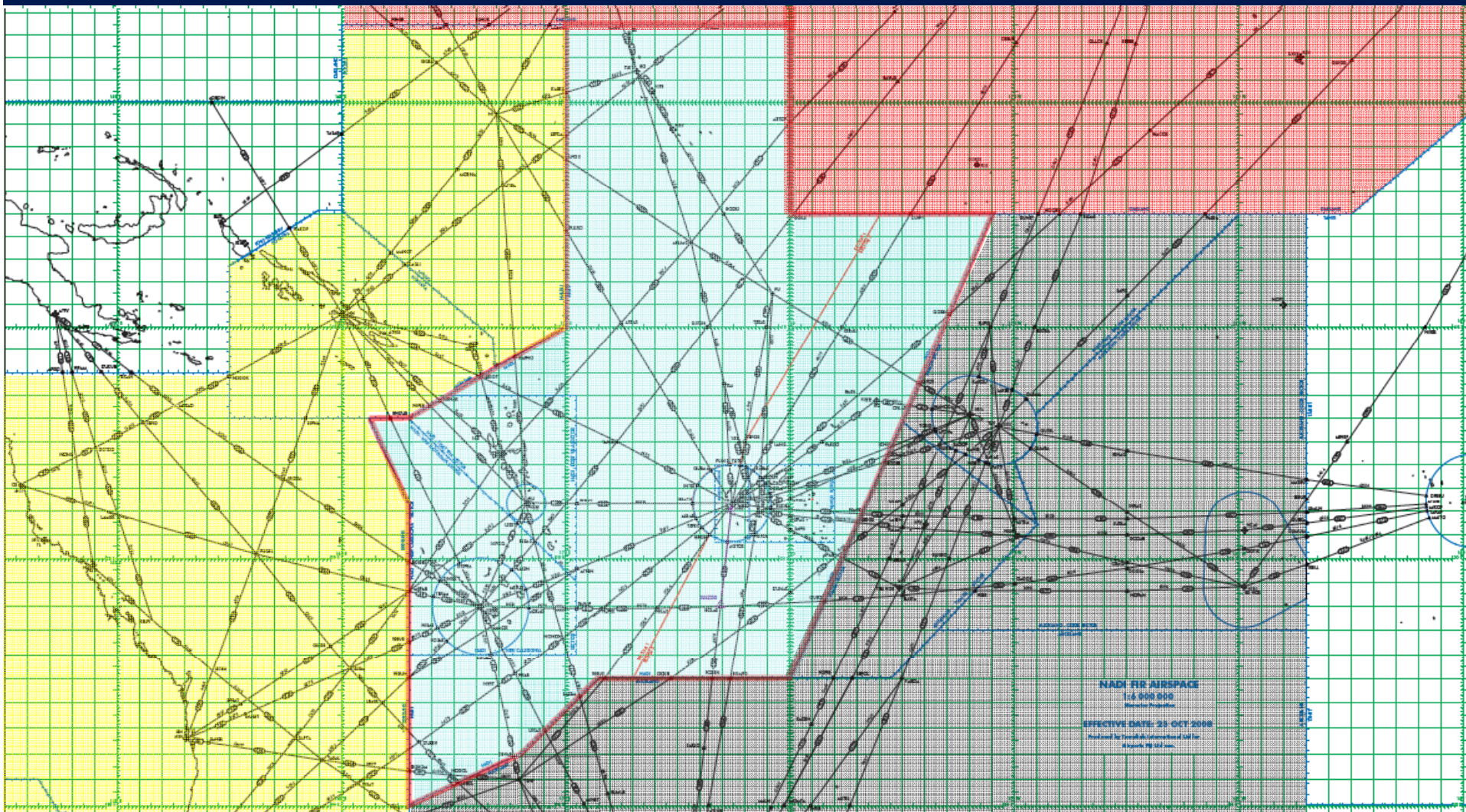
Civil Aviation Authority of the Fiji Islands

OUTLINE

1. AIRSPACE – FIR/DOMESTIC
2. HISTORY
3. CURRENT STATE OF PBN
4. BARRIERS
5. SOLUTIONS

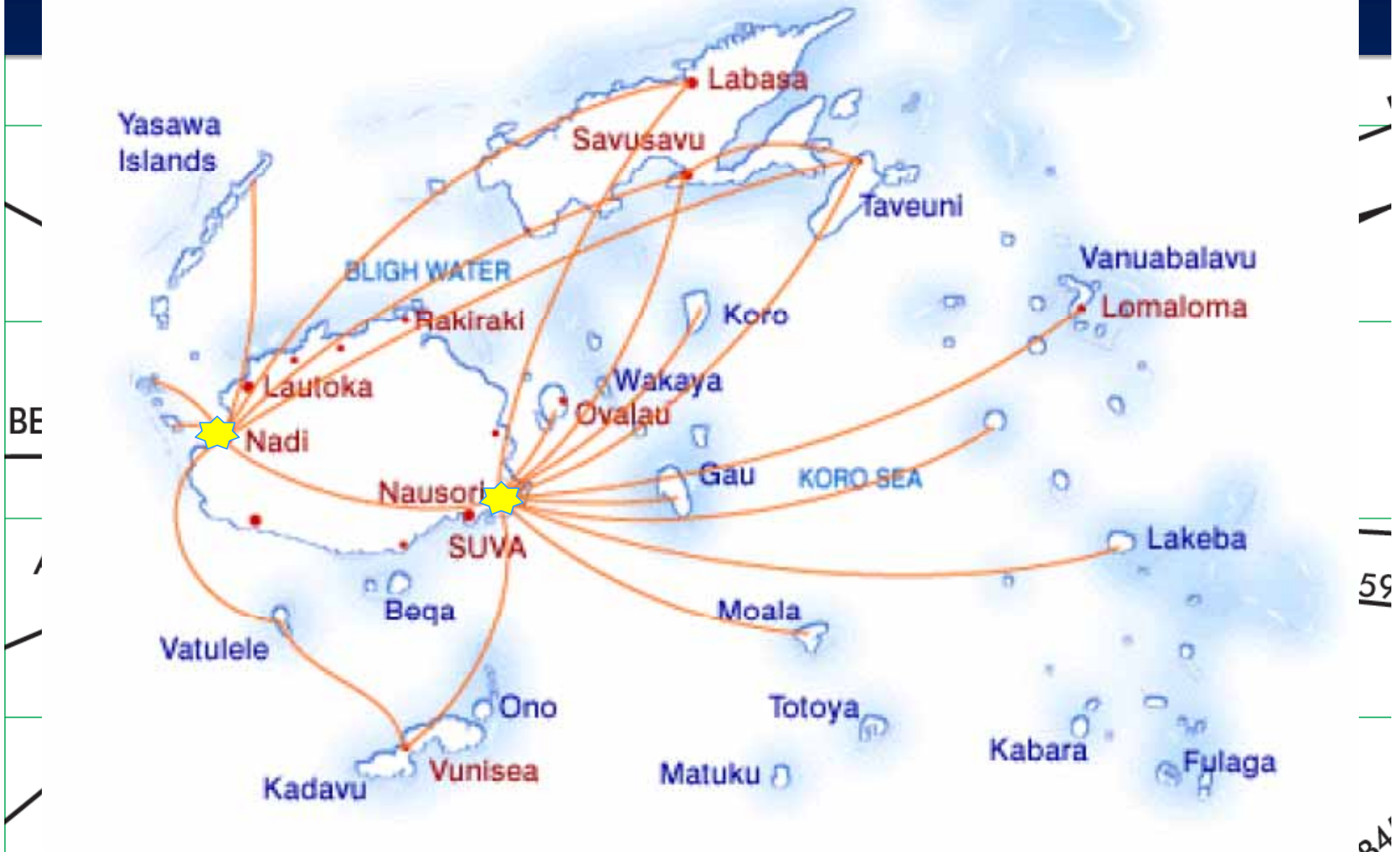


NADI FIR



Civil Aviation Authority of the Fiji Islands

FIJI DOMESTIC



FIJI HISTORY

1. REORGANISATION 12 APRIL 1999

- CIVIL AVIATION AUTHORITY FIJI ISLANDS
- AIRPORTS FIJI LIMITED - Government Commercial Company established on 12 April 1999 under the Public Enterprise Act, 1996.
- Operates 15 airports in the Fiji Islands including Nadi and Nausori International airports and 13 other domestic airports
- Air Navigation Service Provider within the Nadi Flight Information Region (Nadi FIR) which includes the sovereign air spaces of Tuvalu, Kiribati, New Caledonia and Vanuatu above FL245.



CURRENT STATE OF PBN

- RNP10 and RNP4 Implemented in Nadi OCA
- APANPIRG Conclusions 18/55 – Designation of PBN Focal Point, appointed 2008;
- APANPIRG Conclusions 18/53 – Development of State PBN Implementation Plan, CAAFI/AFL submitted February 21st 2010;
- Regulatory PBN Ops Approval Training Completed (CASA)
- FIJI PBN Team established 2010 – Consist of Regulatory Authority, ANS Provider and National Airline - 6 progress meetings 2010-2011;
 - Tasked to review Fiji PBN Implementation Plan 2011;
 - Assist monitor ADS-B Surveillance rollout 2012-13 and review Fiji PBN Airspace Concept to be implemented 2013



CURRENT STATE OF PBN

- ICAO Assembly Resolution A36-23 – Approach Operations, APV (*Baro-VNAV and/or augmented GNSS*) for all Instrument Runways either as primary approach or as back up for precision approaches by 2016;
 - Intermediate milestones as follows: 30% by 2010;

	PA	NPA
• Nadi Runway 02/20	RWY02-ILS	RWY02 - LNAV/ VNAV advisory, LLZ-TNDB-NDB RWY20 - Non Instrument Runway
• Nadi Runway 09/27		RWY09 - LNAV/ VNAV advisory RWY27 - Non Instrument Runway
• Nausori Runway 10/28		RWY10 - LNAV/ VNAV advisory, VOR/DME-NDB/DME-TNDB RWY28 - LNAV/ VNAV advisory, VOR/DME-NDB/DME-NDB
• Rotuma Runway 07/25		RWY07 - LNAV/ VNAV advisory RWY25 – NDB
<ul style="list-style-type: none"> • Eight (8) International instrument runways listed in Fiji of which five (5) are already served with Approach Vertical Guidance (APV) capability i.e. 62½% by 2009 Intermediate milestone. • The challenge is the remaining one (1) instrument runway to meet APV criteria and the remaining two (2) non instrument runways to be served with APV by 2016 		



CURRENT STATE OF PBN

- ICAO Assembly Resolution A36-23 – Approach Operations, APV (*Baro-VNAV and/or augmented GNSS*) for all Instrument Runways either as primary approach or as back up for precision approaches by 2016;
 - Intermediate milestones as follows: 70% by 2014;
 - In progress, CAAFI/AFL /Airline Stakeholder PBN team to progress plans to meet above target



CURRENT STATE OF PBN

- ICAO Assembly Resolution A36-23 – Arrival and Departure Operations, Interim Asia/Pacific PBN Regional Implementation Plan

- RNAV 1 SID/STAR Short-Term milestones as follows:
50% of international airports by 2010

In progress – 2009 draft SID/STAR held by ANSP (AFL) but have yet to progress to publication, CAAFI/AFL /Airline Stakeholder PBN team target AIRAC date Nov 2011

- RNAV 1 SID/STAR Short-Term milestones as follows:
75% of international airports by 2012

In progress - draft SID/STAR held by ANSP (AFL) but have yet to progress to publication, CAAFI/AFL /Airline Stakeholder PBN team target AIRAC date Nov 2011



CURRENT STATE OF PBN

- ICAO Assembly Resolution A36-23 – Arrival and Departure Operations, Interim Asia/Pacific PBN Regional Implementation Plan

- RNAV 1 or RNP 1 SID/STAR Medium-Term milestones as follows: 100% of international airports by 2016

In progressive review by CAAFI/AFL /Airline Stakeholder PBN team

- RNAV 1 or RNP 1 SID/STAR Medium-Term milestones as follows: 70% of busy domestic airports by 2016 where there are operational benefits

In progressive review by CAAFI/AFL /Airline Stakeholder PBN team



IMPLEMENTATION BARRIERS

1. Insufficiency PBN Knowledge

- PBN initiatives remain a foreign topic and encounter opposition or diversions.
- Noncommittal stance by key stakeholders e.g. Domestic carriers to PBN initiatives
- Confusion in Nav-Aid Infrastructure Planning, Airspace Planning , Operations Approval process, Goal setting.

2. Funding - PBN Team

- Scarce funding for Regulator/ANSP/Airline to attend and gain knowledge of PBN updates at regional PBN WS/Seminar/TF level to assist shift momentum towards PBN initiatives.
- Regulatory Operations Approval and RNP AR Training



IMPLEMENTATION BARRIERS

3. Mixed Fleet Equipage

- Legacy aircraft equipage without any plans for upgrades until after 2013
- Domestic re-fleeting without considering PBN initiatives

4. Maps and Charts Updates

- Lack of local charting equipment and PBN expertise to update AIP and maps

5. Government Policy Conflicts

- Influence and divergence of funding at federal level to delay PBN initiatives and goals due to social obligations.
- Opponents to Safety Assessments.



IMPLEMENTATION SOLUTIONS

- Intimate Regional involvement at local level through focused PBN workshops, Regional funding assistance through advanced PBN states to develop local skills and capabilities.
- Assigned monitoring of progress at neighboring level, State-State monitoring e.g. within or adjacent FIR.
- Localized or shared resource for Regulatory Operations Approval and RNP AR Training.
- Improved advisory and planning at Regulatory and ANSP level of PBN Initiatives to Domestic Operators.
- Inclusive and well informed (familiarity with PBN Manual) local PBN Team in ADS-B surveillance projects to foster PBN initiatives.
- PBN Team involvement at PBN TF level.





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Questions?



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