VANUATU PBN PROGRESSION PLAN

ICAO PBN Workshop in Nadi, Fiji

30th April to 04th May 2018

PBN TOPICS

- Types of runways that exist
- conventional navigation aids associated with certificated aerodromes;
- Non instruments runways with no IFR capabilities;
- Introduction of the GNSS RNP APCH approaches in Certificated aerodromes;
- Introduction of RNAV GNSS approaches into non instrument runways
- Problems encountered
- Way Forward

TYPES OF RUNWAY

29 public aerodromes of which 3 are certificated by the civil aviation authority of Vanuatu and being managed by **Airports Vanuatu Limited** (AVL)

All three are non precision approach Runways, with conventional Navaids as follows;

VLI/BAUERFIELD (**VOR-DME, LOC-DME, NDB**)

SON PEKOA (**NDB-DME**)

TAH WHITEGRASS (**NDB**)

Remote Runways

Vanuatu has 26 outer Island Day VFR only Aerodromes (Non Instrument Runways) which can cater for aircraft less than 5,700 kg MCTOW.

Safety and approaches to these outer island airports are limited to Day VFR only Flight plans for aircraft operations

Introduction of RNAV GNSS APPROACHES

Air Vanuatu (Operations) Ltd embarked on funding and the design of the Naverus Aproach charts for the RNP AR APCH approaches into VLI

As a result Bauerfield runway has 2 RNP AR APCH approach plate RWY 11 and approach plate RWY 29

DESIGN OF GNSS APPROACHES

Vanuatu has embarked on GNSS approaches through a NZAID funded project with the Airways Corp. of NZ designing our charts which resulted in;

- Improvements to the Charts for RNP APCH to VLI;
- Improvements to RNAV (GNSS) approaches to;
  - RNAV (GNSS) RWY 12 & 30 for SON;
  - RNAV (GNSS) RWY 15 & 30 for TAH

RNAV GNSS For OIA

Vanuatu has a formal RNAV GNSS approach design project which will take 3 stages, with the first step already completed through the survey and design of RNAV (GNSS) approaches into 6 outer island aerodromes

RNAV (GNSS) approach into CCV

the 2nd and 3rd stage will see all remaining 20 remote Day VFR aerodromes surveyed and charted for RNAV (GNSS) approach

REGULATORY APPROVALS TO MEET RNP

The Air Vanuatu B737-800 and ATR72-600 fleet are authorized;

1. Through their pilot training to be able to fly RNP;
2. The Maintenance programmes that is Approved by CAA for the B737-800 and ATR72-600 in terms of the GNSS box is approved
3. The RNP AR APCH charts put out are approved by CAAV

OPERATORS FLYING RNP

- AIR VANUATU (RESTRICTED TO B737 & ATR72-600)
- FOREIGN AIR OPERATORS SUCH AS FIJI AIRWAYS, AIR NEW ZEALAND, AIR CALEDONIE, AIR NEW GUINEA, VIRGIN AUSTRALIA INTL that come to Vanuatu are authorized for en-route RNP
- The operators that are approved to fly VLI RNAV are limited only to Air Van, AIR New Zealand and Virgin Australia

RNP DIFFICULTIES

- RNP REQUIRES FUNDING SOMETHING WE ARE SHORT OF;
- Dedicated and experienced surveyors within the state that know the ICAO Annex 14 OLS requirements to produce accurate survey data to RNP needs;
- Pacific Island ICAO states like Vanuatu do not have Procedure design capabilities within so will always rely on tender to external agencies such as NZ Airways or ASA;

RNP DIFFICULTIES

- Most of our aircraft with MCTOW below 5700 kg are not equipped and approved for RNP operations;
- Lack of Qualified Technical experts in Maintenance or Flying within our air operators and maintenance facilities regarding PBN;
- Most PASO Member states rely on NZ Rules Capturing RNP so are not independent of the NZ Rule making frame work

WAY FORWARD

- EDUCATION is the Key, CAAV to publish and organize seminars for operators with aircraft of MCTOW of less than 5,700 kg so they can equip, have procedures within their expositions and be approved to fly RNP locally;
- Vanuatu to provide appropriate funds from Safety Levy to allow Calibration flights of such RNP procedures;
- Rules to capture latest ICAO Annex requirements regarding RNP so it becomes mandatory for all operators

FORWARD

- Need to authorize Check and Training Captains within our air Operators who can conduct adequate pilot training and examine crew to authorize pilot to fly the RNP procedures using the GNSS box;
- Require air operators to capture within their respective aircraft MELs RNP capable equipment that enables airworthiness of such aircraft and ability to dispatch based on MEL

PBN IMPLEMENTATION PLAN

Vanuatu has a PBN PLAN IN DRAFT but am unable to submit during this meeting because I could not run it past the Director of CAAV.

Will submit upon our first week of returning after this PBN Implementation meeting

THE END

- Questions and Comments