



DGCA INDIA

PBN OPERATIONS APPROVAL INDIA

A PRESENTATION BY

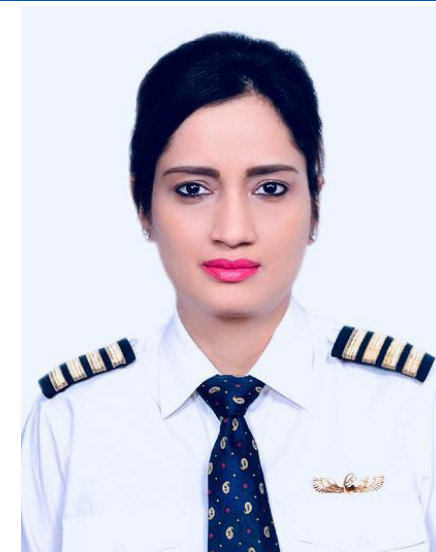
- CAPT SHWETA SINGH



Team lead – DGCA India Flight Standards.

Capt. Shweta Singh

Dy Chief Flight Operations Inspector, FSD DGCA India.



- *25 years of experience in Indian aviation*
- *20+ years of airline experience as qualified Pilot in command and trainer.*
- *Approximately 11000 hours of flying experience on transport category jet aircraft over 50,000 kgs*
- *Currently a regulatory authority approved Examiner on B737NG and MAX.*
- *10 years of experience in Indian regulatory authority-DGCA Flight Operations Inspectorate and holding the key positions in DGCA.*
- *Project management experience for certification of new domestic and international airlines ,including special operations approval process*
- *Has been training Flight Operations Inspectors for undertaking regulatory duties (OJT & Classroom training).*
- *Overseen certification of Critical Airports, Simulators, ATO's, Airline Examiners, special operations for operators.*
- *First Pilot to receive the National Gaurav Award.*
- *Has been an active team member for all the international audits by ICAO and FAA.*



Team – DGCA India Flight Standards.

Capt. Adhiraj Yadav

Senior Flight Operations Inspector, FSD,DGCA India.

- 28 years aviation experience.
- 14000 + hours on transport category aircraft above 50,000 kg.
- Examiner on A320 family.
- Regulatory experience – 4+ years with DGCA.

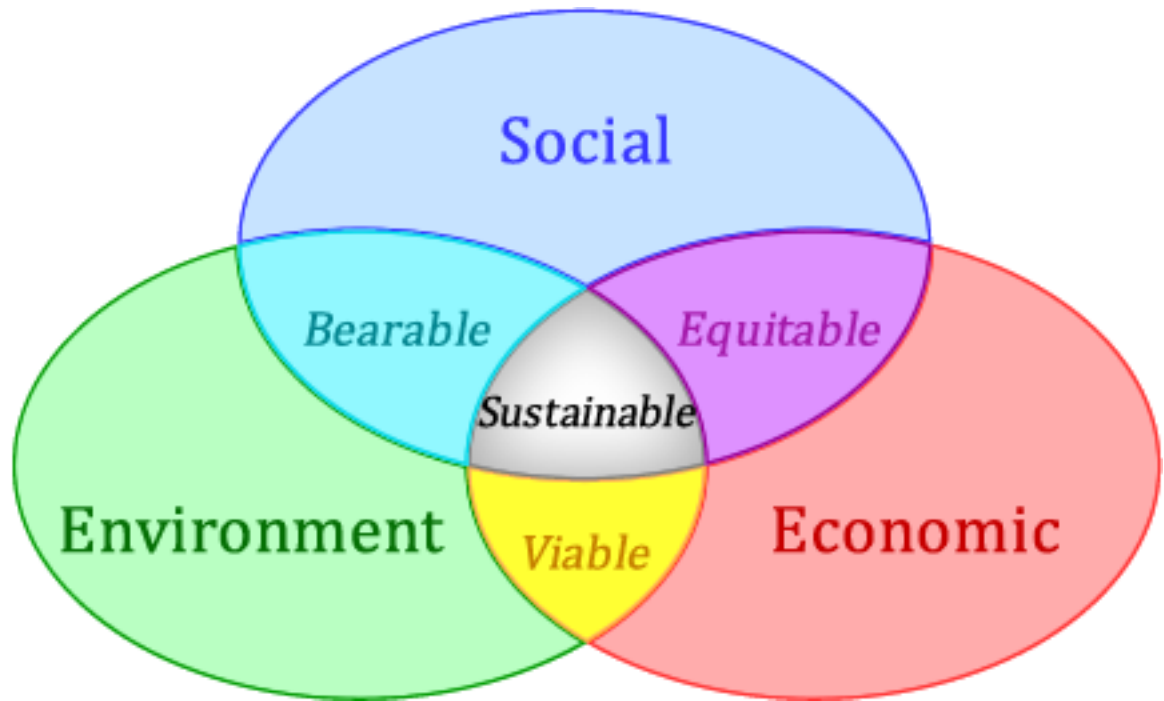
Capt. Vasu Gupta

Flight Operations Inspector, FSD,DGCA India.

- 11 years aviation experience.
- 6 years as airline transport category PIC experience
- Trainer experience of over a year.
- Regulatory experience – 1 year with DGCA.



PBN – Adding value to aviation.





PBN: ICAO documentation



ICAO

International Standards
and Recommended Practices

Annex 6 to the Convention on International Civil Aviation

Operation of Aircraft

Part I — International Commercial Air Transport — Aeroplanes
Eleventh Edition, July 2018





PBN – DGCA India ops documentation



GOVERNMENT OF INDIA
OFFICE OF THE DIRECTOR GENERAL OF CIVIL AVIATION
TECHNICAL CENTRE, OPP. SAFDARJUNG AIRPORT, NEW DELHI - 110003

CIVIL AVIATION REQUIREMENT
SECTION 8 - AIRCRAFT OPERATIONS
SERIES 'S', PART IV
ISSUE I, 4TH SEPTEMBER 2014

EFFECTIVE: FORTHWITH

F. No. AV. 22024/4/2014-FSD

SUBJECT: PERFORMANCE BASED NAVIGATION (PBN)





PBN ECO-SYSTEM - COMPONENTS

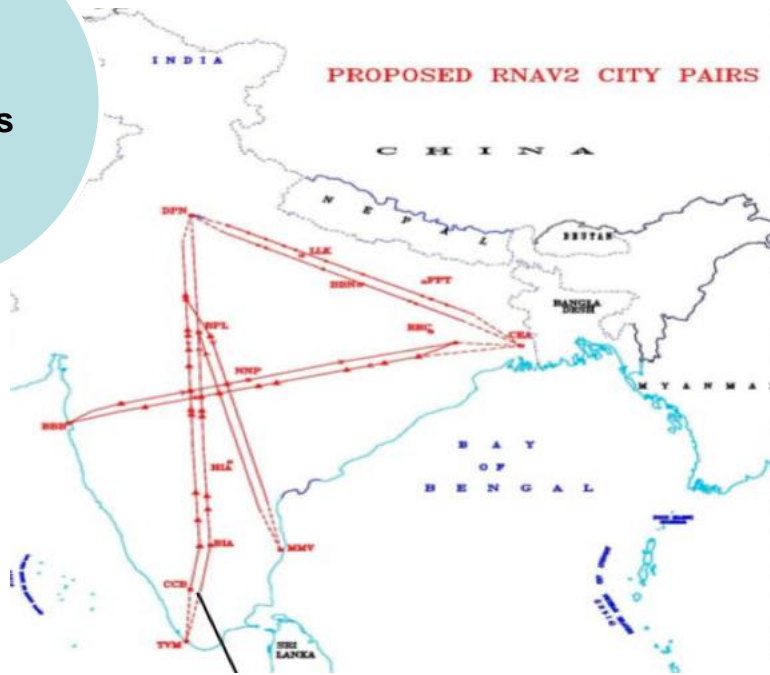


Regulations & Guidelines

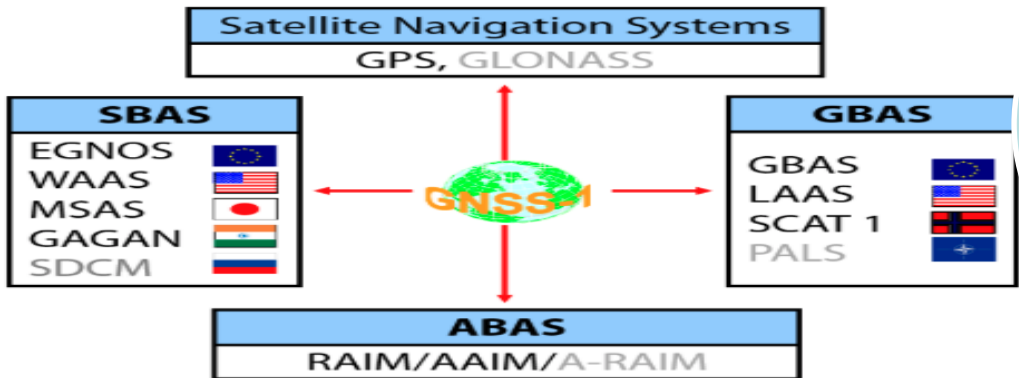
Aircraft Equipment



ATM Procedures



Augmentation





India – the conducive atmosphere.

Extensive PBN ready ATM infrastructure.

50% PBN on important runways (27 of 54)

ATM well augmented by Radar, ADS & Procedures.

Recently commissioned ! Robust SBAS - Gagan.

Young & modern fleet of PBN ready aircrafts with all major airlines.

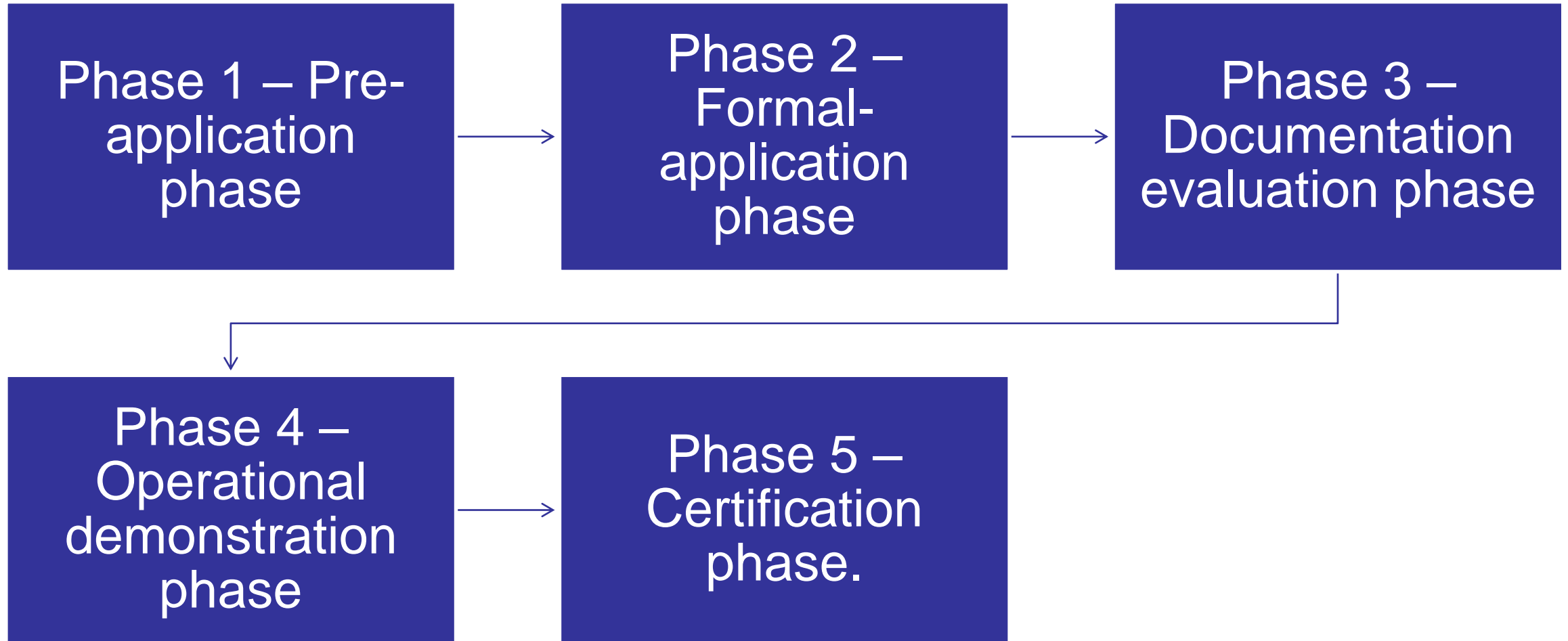


Supporting operators – reducing hurdles.





User friendly 5 phase PBN certification





Phase 1 – Pre application.



Consultancy for implementation



Technical support



Encouragement to implement.

- PBN is being promoted by DGCA – efficiency, economy, environment
- Certification requirements and certificate process explained to operators in detail.
- Inspectors available to guide in implementation.



Phase 2 - Formal Application

Operator

- Documentation.
- Compliance.
- Implementation plan.

DGCA

- Guidance and support for expeditious and safe implementation.



Phase 3 – Document evaluation

DGCA

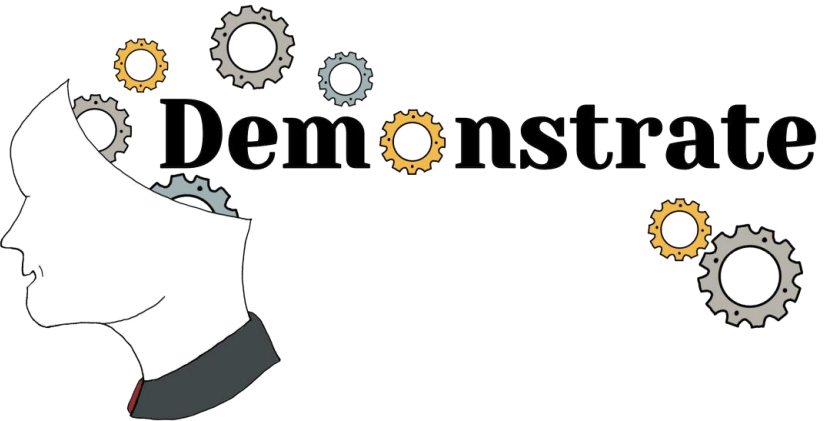
- Evaluate documentation – operations manual, checklists, procedures.
- Evaluate implementation plan.
- Assess safety risks and adequacy of change management.
- Ensure all critical processes are documented in simple terms.

Operator

- Provide clarifications, resolve observations.
- Modify documentation, procedures, plan to enhance efficiency & safety.



Phase 4 – Operational evaluation / demonstration



Equipment adequacy evaluated – simulator / in actual aircraft.

Operating procedures validated – simulator / validation flights on aircraft.

Contingency procedures – tested for adequacy simulating abnormal/ emergency.

Operator's continuous monitoring process – checked.

Safety risks – operators assessment cross-checked.



Sample process – RNP 2 ops approval.

Phase 1

- Feasibility enquiry – operator wants RNP2 approval, Informal meetings with DGCA

Phase 2

- Formal application by operator, documentation submitted to DGCA

Phase 3 &
4

- Document evaluation by FOI
- In-flight verification of procedures (optional)

Annexure 10 - Job Aid Application to conduct RNP 2 Operations



Phase 5 - Certification



- Letter of approval issued by DGCA for specific PBN operations
- Operations specifications issued for RNP-AR operations.



सत्यमेव जयते

भारत सरकार
नागर विमानन विभाग
महानिदेशक नागर विमानन का कार्यालय
सफदरजंग एयरपोर्ट के सामने
नई दिल्ली - ११० ००३



सत्यमेव जयते

GOVERNMENT OF INDIA
CIVIL AVIATION DEPARTMENT
OFFICE OF THE
DIRECTOR GENERAL OF CIVIL AVIATION
OPP. SAFDARJUNG AIRPORT,
NEW DELHI-110 003.

संख्या
दिनांक

Ref.No: XXXXXXXXX-FSD
Dated **October**, 2021

M/s XXXXXXXXXXXX
XXXXXX
XXXXXX,

Subject: Approval for RNP 1, RNP APCH on ATR 72-600 Aircraft of M/s XXXXXXXXXXXXXXXX.

Sir,

Reference is made to your letter no XXXXX dated XX-XX-XXXX on the subject cited above.

Your request for Operational Approval for ATR 72-600 has been examined and found to be in order as per the provision of CAR Section 8, Series 'S' Part IV, Issue I, Rev. 01 dated 05th Jul 2017 and Operations Circular Nos 09, 11 & 12 of 2014. PBN Approval is hereby accorded to M/s XXXXXXXXXXXXXXXX as under.

RNP 1 - GNSS
RNP APCH (LNAV, LNAV/VNAV) - GNSS

PBN approval is applicable to: VT-XXX

The above approval is without prejudice to the compliance of requirements stipulated in the Aircraft Rules, 1937, Aeronautical Information Circulars and the applicable Civil Aviation Requirements relating to subject matter.

Note: This letter supersedes this office letter of even no dated 22nd October, 2021

(XXXXXXXXXX)

Dy. Director of Operations (FSD)

for Director General of Civil Aviation



**Sample ops approval
issued to operators**



Operational approval – achievements.

Airlines / large operators – 100 % approved for PBN operations.

Charter / regional operators – 77 % approved for PBN operations.



Endeavors



Achieve 100% operational implementation to all eligible aircraft



PBN infrastructure – assist in enhancement, optimization.



ATM Procedures – assist in validation



RNP AR operations – assist evolvement and implementation.



APV Baro VNAV – assist in evolving procedures and in implementation

