

IATA`s Perspectives on GNSS RFI

Challenges, Impacts and Best Practices

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GPS Signal Loss

Flight Date

2025 Jan - 2026 Jun

SPI Category	GPS Signal Loss
All Operators FDX Rate	17,66
All Operators FDX Flights	1.555.328
All Operators FDX Events	27.473

Regional hot spots

All Operators FDX Rate

17,66

Global FDX Rate

57,50



Event Location FIR MMFR

All Operators FDX Rate 30,52

All Operators FDX Flights 354.866

All Operators FDX Events 10.830

Event Location FIR MPZL

All Operators FDX Rate 84,96

All Operators FDX Flights 113.988

All Operators FDX Events 9.684

GPS loss signal remains a global and regional safety concern (Jamming – Spoofing)



Country events

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Event Location Country **Trinidad and Tobago**
 All Operators FDX Rate 14,10
 All Operators FDX Flights 13.543
 All Operators FDX Events 191

Event Location Country **Panama**
 All Operators FDX Rate 84,96
 All Operators FDX Flights 113.988
 All Operators FDX Events **9.684**

Event Location Country **Colombia**
 All Operators FDX Rate 6,04
 All Operators FDX Flights 278.130
 All Operators FDX Events **1.681**

Event Location Country **Dominican Republic**
 All Operators FDX Rate 4,87
 All Operators FDX Flights 41.083
 All Operators FDX Events 200

Event Location Country **Brazil**
 All Operators FDX Rate 3,18
 All Operators FDX Flights 608.607
 All Operators FDX Events 1.936

Event Location Country **Mexico**
 All Operators FDX Rate 30,52
 All Operators FDX Flights 354.866
 All Operators FDX Events **10.830**

Event Location Country **Peru**
 All Operators FDX Rate 3,05
 All Operators FDX Flights 124.247
 All Operators FDX Events 379

Event Location Country **Venezuela,**
 All Operators FDX Rate 26,15
 All Operators FDX Flights 17.210
 All Operators FDX Events 450

Event Location Country **Curacao**
 All Operators FDX Rate 8,88
 All Operators FDX Flights 25.117
 All Operators FDX Events 223

Event Location Country **Argentina**
 All Operators FDX Rate 8,85
 All Operators FDX Flights 145.338
 All Operators FDX Events 1.286



Regional data analysis

Monthly and SPI Trends

GPS Signal Loss

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GPS Signal Loss

PANAMA

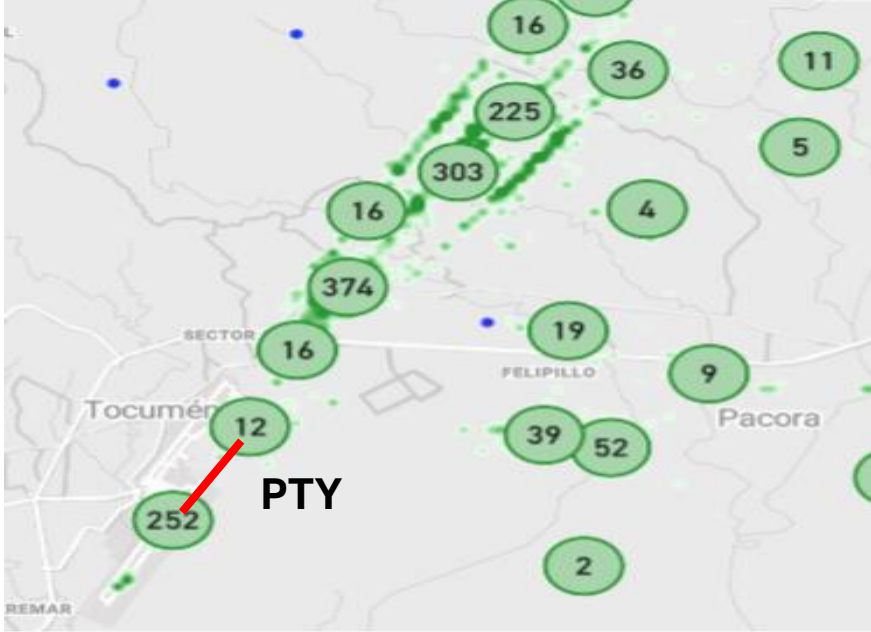
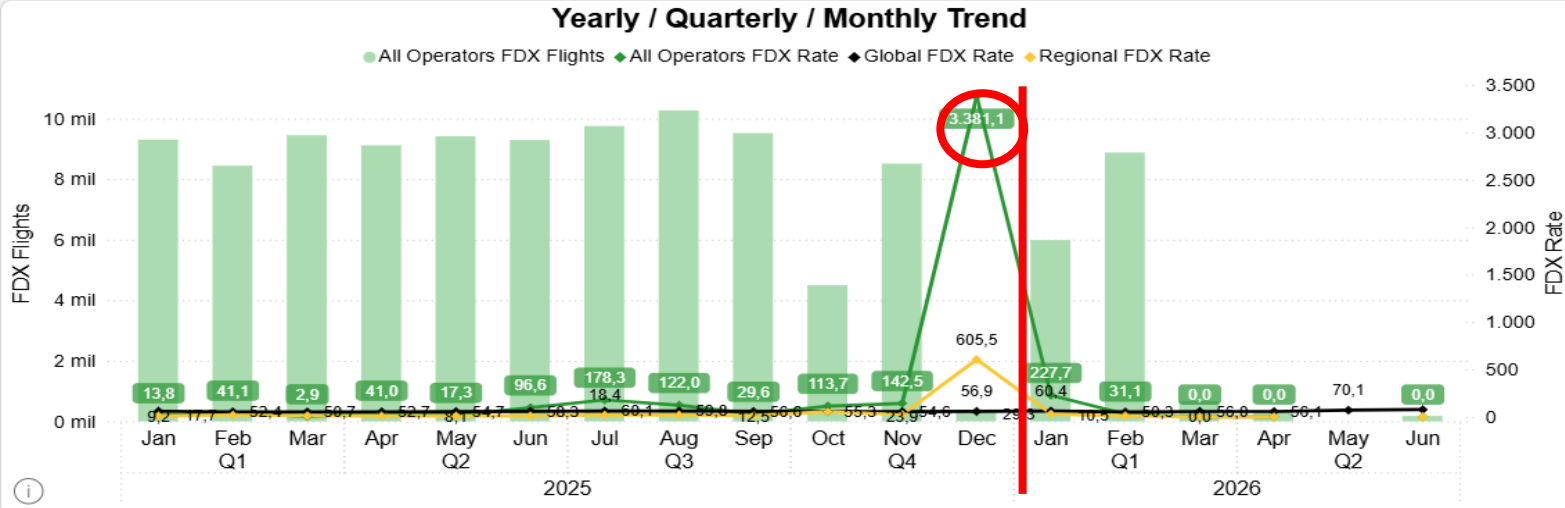
Flight Date
2025 Jan - 2026 Jun

Monthly and SPI Trends

All Operators FDX Rate
84,96

Global FDX Rate
57,50

First Quartile FDX Rate
0,00



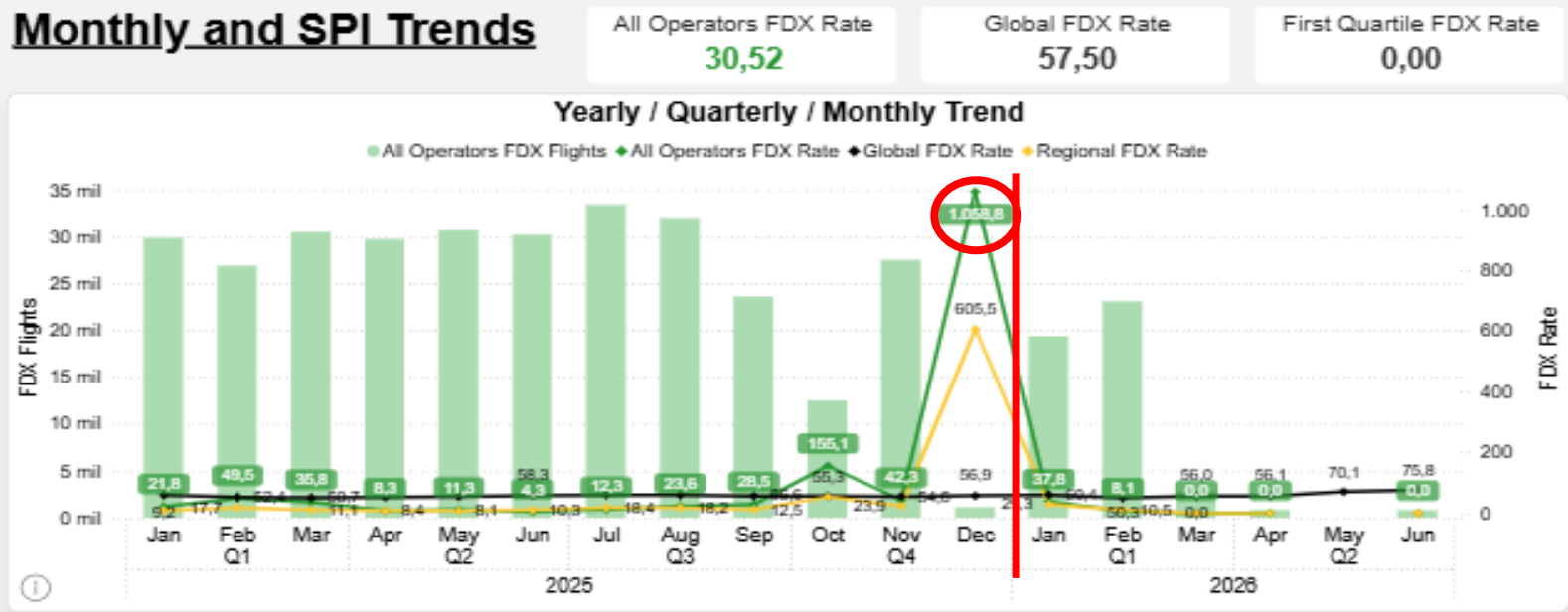


GPS Signal Loss

MEXICO

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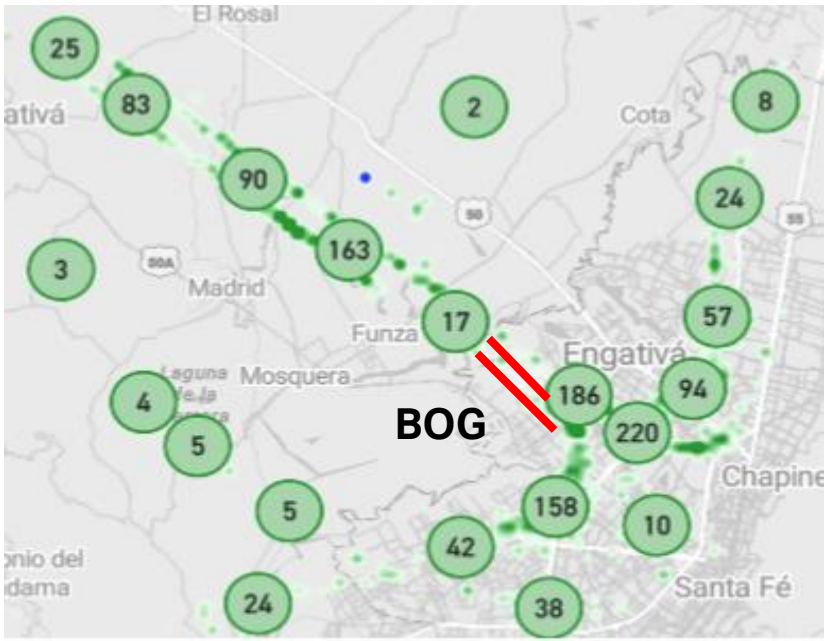
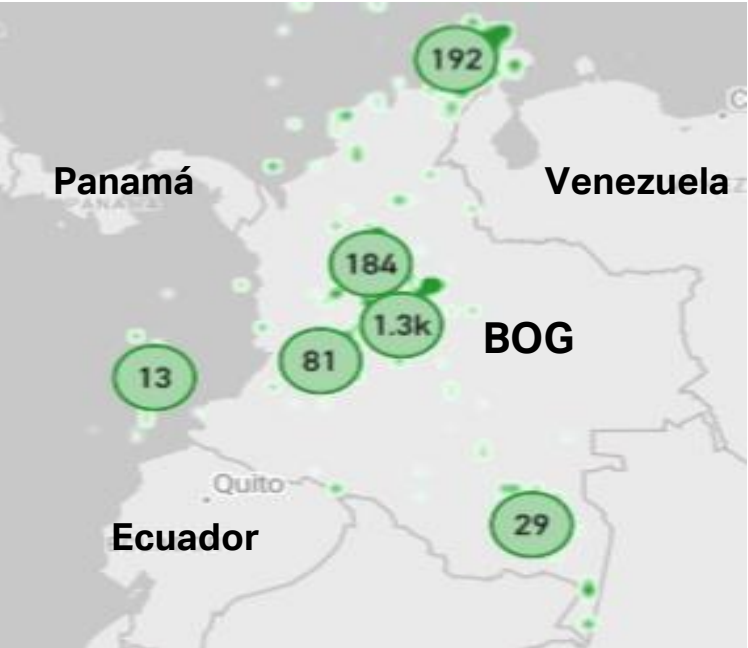
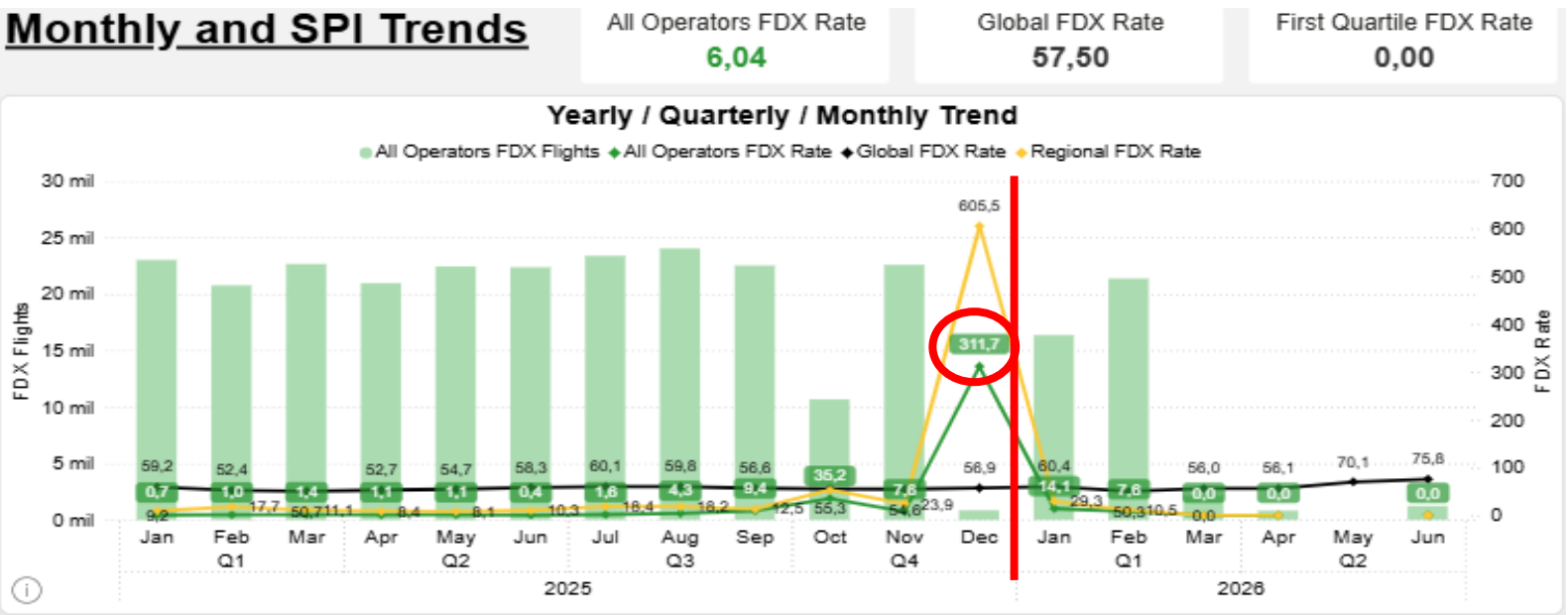




GPS Signal Loss

COLOMBIA

Flight Date
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3 September 2026





GPS Signal Loss

BRASIL

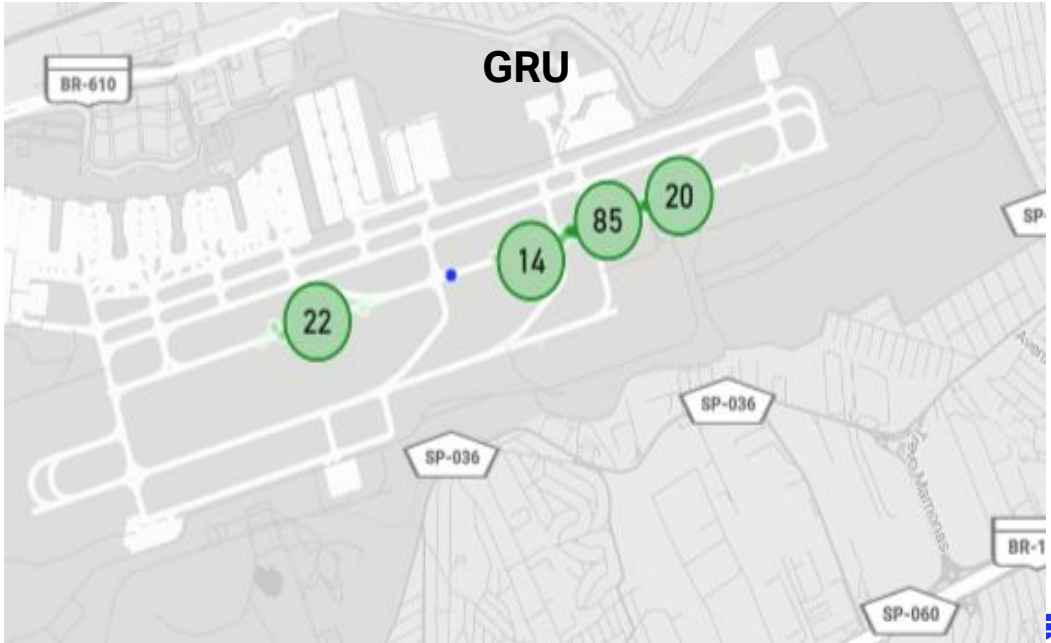
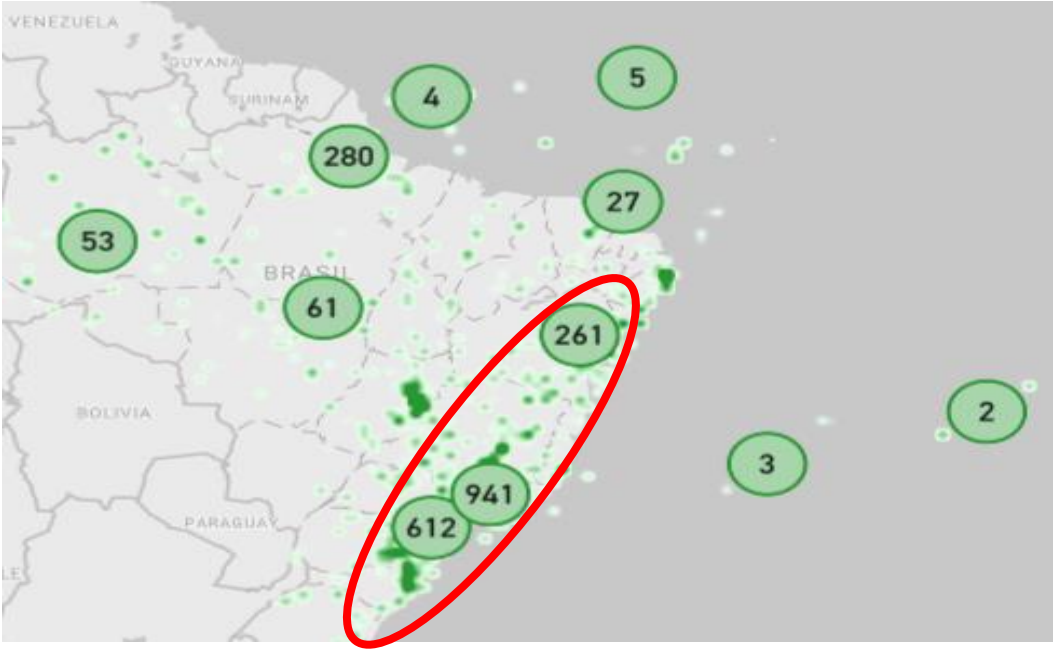
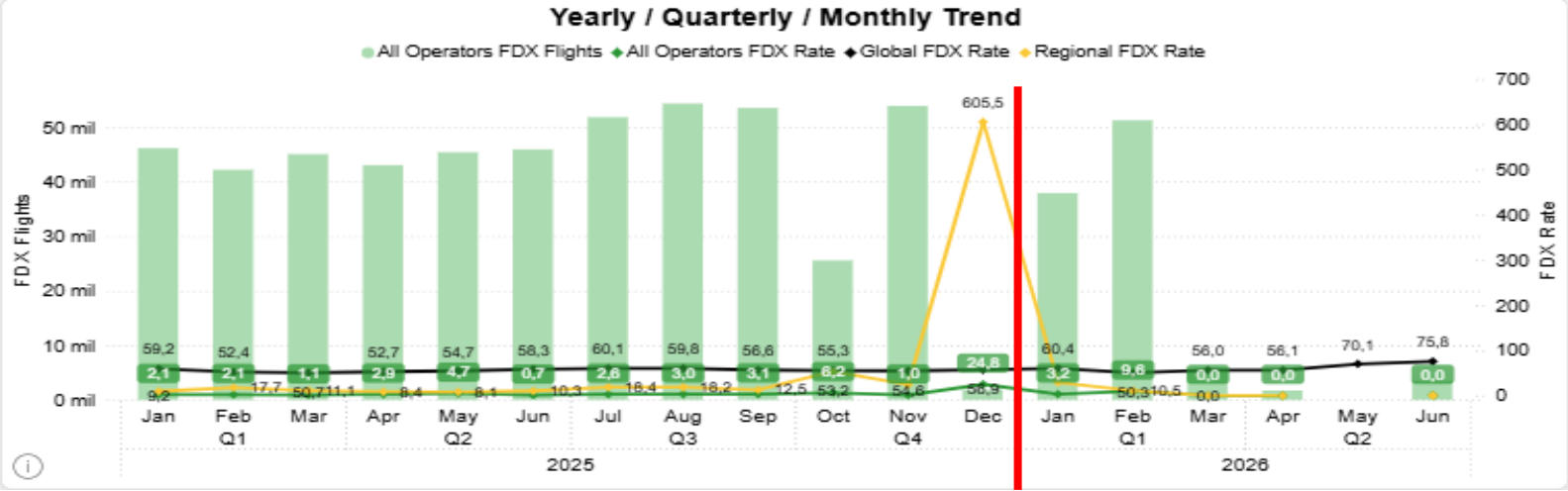
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Monthly and SPI Trends

All Operators FDX Rate
3,18

Global FDX Rate
57,50

First Quartile FDX Rate
0,00



Resilient Operational Network

A proportionate regional response to GNSS interference

Safety • continuity • predictability • efficiency

DETECTION & REPORTING



ALTERNATIVE NAVIGATION



CONTINGENCY PROCEDURES



ATFM MEASURES



COORDINATION



Regions need a harmonized operating response, not a one-size-fits-all operational scenarios and infrastructure build.

GNSS interference is now an operational continuity risk

Its effects extend beyond navigation degradation to capacity, delays, fuel burn, airport access, workload and predictability.

PREPARE BEFORE DISRUPTION



Why GNSS disruption matters

The operational impact propagates rapidly across aircraft, airports, sectors and the wider network.

01

PBN capability

RNAV/RNP procedures, SIDs, STARs and approaches may become unavailable.

02

Capacity

More conservative separation, reduced rates and routing restrictions.

03

Efficiency

Longer routes, holding, diversions, fuel burn and CO₂ emissions.

04

Airport access

PBN-dependent aerodromes face higher delay, diversion and cancellation risk.

05

Workload

More monitoring, coordination, tactical management and rescheduling.

Core risk: loss of operational predictability

RON operating model

Resilience depends on five mutually reinforcing capabilities activated through predefined procedures.



1

Detect & report

Rapid crew reporting and timely notification of interference events.

2

Navigate alternatively

DME, VOR, ILS and INS.

3

Manage tactically

ATS measures, increased separation and ATFM when appropriate.

4

Coordinate regionally

Common criteria, cross-border exchange and a shared operating picture.

5

Train & exercise

Known, published and practiced procedures across stakeholders.

Design the network proportionately

Preserve PBN benefits while tailoring backup capability to traffic density and operational complexity.



LOW VOLUME / LOWER COMPLEXITY

Focus on

- Radar surveillance
- Maintained ILS capability
- Selected VOR/DME facilities

HIGH-DENSITY / COMPLEX AIRSPACE

Strengthen with

- DME/DME updating
- Capability to preserve RNAV performance
- Robust tactical ATFM
- Higher redundancy where justified

Principle: minimum rational infrastructure, maximum operational readiness

Close the readiness gaps

The Working Paper identifies inconsistent procedures and delayed responses as the central regional weakness.

Current gaps

- ✓ Different NOTAM criteria
- ✓ Uneven ATS preparedness
- ✓ Limited cross-border coordination
- ✓ Inconsistent information exchange
- ✓ Procedures not widely known

Priority response

- ✓ Predefined transition criteria
- ✓ Timely notification and NOTAMs
- ✓ Published operational procedures and alternative routes (if necessary)
- ✓ Degraded-mode ATFM plans
- ✓ Joint exercises and training

Intended outcome

- ✓ Safety maintained
- ✓ Capacity managed transparently
- ✓ Continuity at principal airports
- ✓ Lower operational uncertainty
- ✓ More predictable airline response

Thank you!

