



ICAO ESAF GANP 8th Edition and ASBU Implementation Data Submission Workshop

Windhoek, Namibia

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**INTERNATIONAL
CIVIL AVIATION
ORGANIZATION**



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INTERNATIONAL CIVIL AVIATION ORGANIZATION • ESAF REGIONAL OFFICE

Global Air Navigation Plan

Doc 9750 — From the 7th to the 8th Edition

GANP implementation

Global Strategic Level

Performance-based

2050 horizon

A42 Assembly

Prepared for the ESAF 2026 GANP & ASBU Regional Workshop



AGENDA

Presentation Overview



1 — Context

Why a new edition, the GANP structure, and what stays stable



2 — The six changes

Horizon, vision, data, AI, climate and resilience, in depth



3 — The implementer's frameworks

KPAs & ambitions, BBB/ASBU, the conceptual roadmap



4 — Roles, planning & action

Roles, AFI ANP planning, ESAF implications and next steps



WHY A NEW EDITION MATTERS

Purpose



A living planning tool

The GANP is reviewed before each triennial ICAO Assembly. The 8th edition is the latest revision of its global strategic level, updated for a new era in aviation (42nd Assembly).



Written for implementers

This pack distils the substantive changes from the 7th edition so States can update plans, briefings and priorities without re-reading the full document.



Framed for the regions

Implications are highlighted for the 24 ESAF States and the AFI planning framework, so changes translate into concrete national action.



A REFRESHER

The GANP's four-layer structure

1

LEVEL 1 — Global Strategic

Vision, performance ambitions and the conceptual roadmap. Executive language, for decision-makers. This is the level the 8th edition revises.

2

LEVEL 2 — Global Technical

The BBB and ASBU frameworks and the performance framework (KPIs). For technical managers.

3

LEVEL 3 — Regional

The AFI Air Navigation Plan and regional priorities, set through the PIRG (APIRG for our region).

4

LEVEL 4 — National

National air navigation plans, owned by States and aligned with regional and global plans.



One plan, four levels

- Strategic levels stay stable between Assemblies; technical levels evolve continuously.
- All four levels live on the interactive GANP Portal.
- Alignment top-to-bottom is what makes the system seamless.



THE STABLE ANCHORS

What carries over unchanged



Four-layer structure

Global strategic, global technical, regional and national levels.



BBB & ASBU frameworks

The technical backbone for essential services and operational improvements.



The KPAs

The performance areas through which ambitions are expressed.



Four-step roadmap

Digital, time-based, trajectory-based and total performance management.



GASP & GAsEP

Complementary global plans for safety (Doc 10004) and security (Doc 10118).



“No country left behind”

The guiding equity principle for the whole plan.



WHY AN 8TH EDITION NOW

How the GANP is kept current

The strategic level is reviewed before every triennial ICAO Assembly and updated as necessary. Here is how a revision flows.



GMVT- GANP Multidisciplinary Vision Team

Take-away: the BBB framework is refreshed biannually and ASBU changes are folded in within six months of approval — so the technical levels keep moving even between editions.



WHAT THIS PART COVERS

The six changes at a glance



1

Planning horizon

Extended from 2040 to 2050, aligned to the ICAO Strategic Plan 2026–2050.



2

Refreshed vision

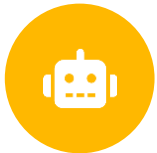
A new, sharper statement of ICAO's vision for civil aviation.



3

Updated data baseline

Traffic, economic and forecast figures refreshed to a 2023–2024 base.



4

Automation & AI

A wholly new section on AI, the UN AI principles and levels of automation.



5

Climate goals

Net-zero by 2050 (LTAG) and new propulsion technologies foregrounded.



6

Resilience

A new emphasis on resilience and continuity, drawing on COVID-19 lessons.



Change 1 — The planning horizon moves to 2050

7th EDITION

2040

and beyond



8th EDITION

2050

and beyond

Why it matters for States

- Strategic direction and performance ambitions now run to 2050, with the ICAO Strategic Plan 2026–2050.
- National air navigation and master plans should be re-baselined against the longer horizon.
- A more stable, longer forecast for investment and capacity planning.

Performance-ambitions header restated: “A high-performing system by 2040” → “by 2050 and beyond.”



WHAT ICAO IS AIMING FOR

Change 2 — A refreshed statement of vision

7th edition vision

“To achieve sustainable growth of the global civil aviation system.”

8th edition vision

“A safe, secure and sustainable international civil aviation system that connects the world for the benefit of all nations and people.”



What the shift signals

- From a growth-centred statement to one anchored in safety, security and sustainability.
- Explicit framing of connectivity “for the benefit of all nations and people” — resonant for developing States.
- Reaffirms ICAO’s role as the global forum for its 193 Member States.



ICAO



FROM A 2017 TO A 2023–2024 PICTURE

Change 3 — The refreshed facts & figures

Indicator	7th ed.	8th ed.	Direction
Economic activity supported	\$2.7T	\$4.1T	↑
Jobs supported	65.5M	86.5M	↑
Passengers per year	4.1B	4.4B	↑
Passenger-kilometres	7.75T	8.17T	↑
Airports w/ scheduled flights	3,759	4,072	↑
ATS routes	45,091	67,300	↑
Commercial airlines	1,303	1,138	↓
Commercial aircraft in service	31,717	29,039	↓
ANSPs	170	162	↓
Daily flights	120,000	96,577	↓

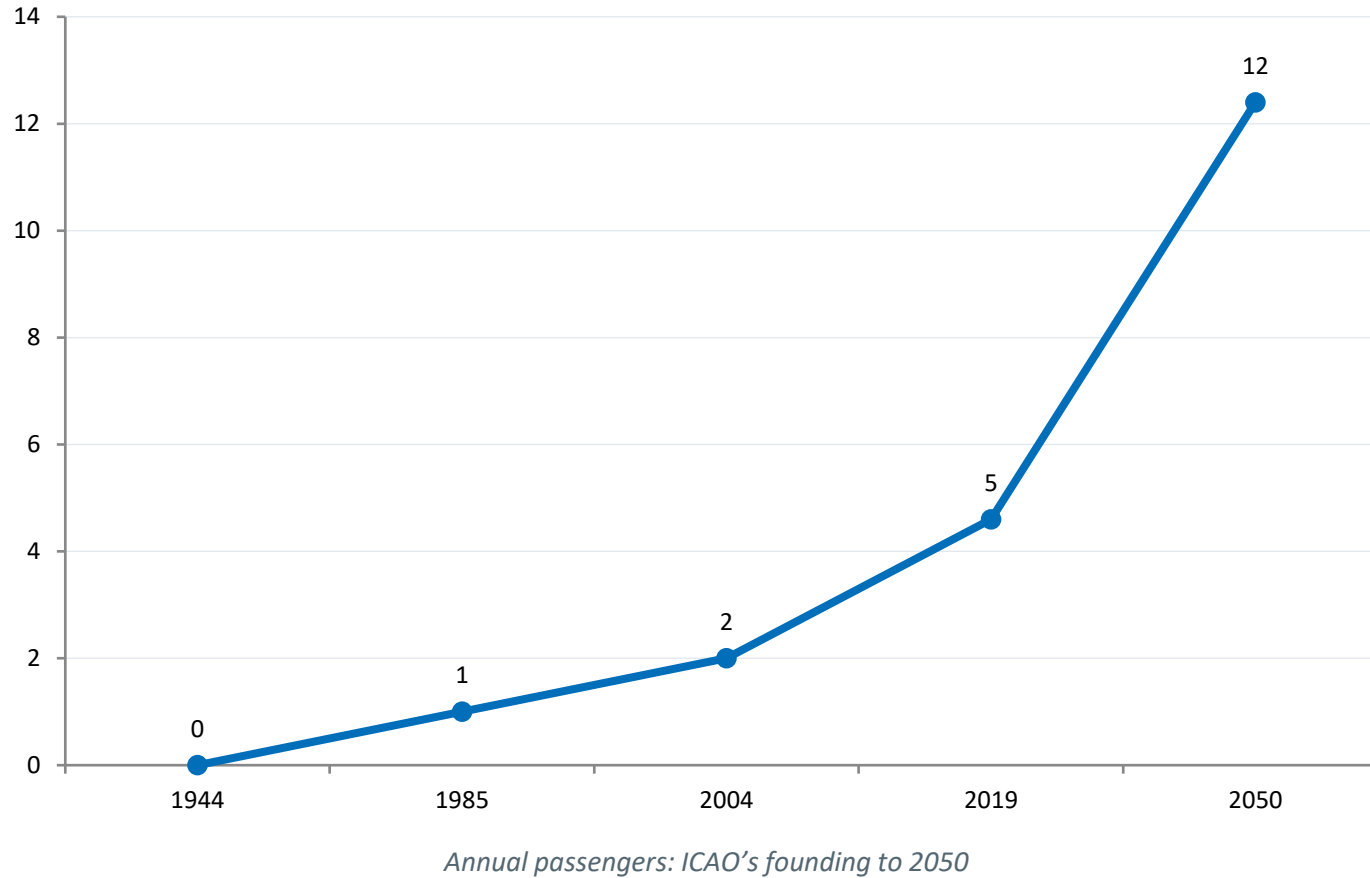
The table

- Demand indicators are up: economy, jobs, passengers, routes and airports.
- Supply counts consolidate: fewer airlines, aircraft and ANSPs reflect a leaner post-pandemic base year.
- Daily flights fall because the base year is 2023, not a peak year.
- Forecast window tightened from “next 20 years” to “next 5 years” for near-term growth.



WHY CAPACITY PLANNING CAN'T WAIT

Change 3, continued — the growth trajectory to 2050



Passengers

4.6B → 12.4B by 2050 **×2.7**



Air cargo

295B → 638B FTK by 2050 **×2.2**

COVID-19 was the worst crisis since WWII; the sector recovered to 2019 levels by 2024 — and is now planning for a doubling.



Change 4 — Automation & Artificial Intelligence

Three levels of automation

1

Manual / human-controlled

Humans retain full control; automation assists and reduces workload.

2

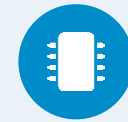
Assisted / supervised

Automation operates with greater autonomy; humans set parameters and intervene.

3

Autonomous

System makes independent, data- and rule-based decisions; humans set the goals.



The principle

- Future automation will increasingly leverage AI to manage growing diversity and complexity.
- The aim is to optimise total system performance while keeping the human in the loop.
- Because aviation is international, AI frameworks must be harmonised across States.
- AI suitability depends on comprehensive, accurate localized data — a real consideration for ESAF States.



NOW APPLIED TO AIR NAVIGATION

NEW IN 8th

Change 4, continued — the UN principles for AI



Do no harm



Defined purpose, necessity & proportionality



Safety & security



Fairness & non-discrimination



Sustainability



Privacy, data protection & governance



Human autonomy & oversight



Transparency & explainability



Responsibility & accountability



Inclusion & participation

These ten UN principles for AI in the UN system are adopted as the ethical frame for AI in the air navigation system.



Change 5 — A stronger climate and innovation focus

LONG-TERM ASPIRATIONAL GOAL (LTAG)

Net-zero

carbon emissions for international aviation by 2050

What the 8th edition adds

- Adopts the LTAG agreed at the 41st ICAO Assembly, in support of the UNFCCC Paris Agreement temperature goal.
- Recognises each State's special circumstances and respective capabilities, and its own national timeframe.
- Foregrounds new propulsion — electric and hydrogen aircraft — whose environmental impacts must be understood.



Operational efficiency

Reducing airborne delays and improving flight profiles cuts fuel burn and CO₂.



Enabling innovation

Performance-based regulation lets environmental benefits be realised sooner.



Links to CORSIA

Connects GANP operational measures to the wider ICAO basket of measures.



Change 6 — Resilience as a planning priority

Why it now has its own section

- Aviation is a connector during crises — moving aid and personnel where they are needed.
- Because of that importance, disruptions have broad social and economic impact.
- The 8th edition asks States and providers to embed resilience by design and keep robust contingency and business-continuity plans.
- Resilience spans day-to-day operations and rarer, longer-term events alike.

Four levers the edition highlights



Human capability

Well-being, competency retention and training to deliver new services.



Agile architectures

Redundancy and “soft-failure” modes that contain disruption.



Scalable services

Capacity that scales with demand keeps the system cost-effective.



Lessons learned

Capturing recovery experience into contingency and communications plans.



The KPAs and the updated performance ambitions

Ambitions are now framed for a high-performing system by 2050. The 11 KPAs group by how visible they are to society.

3 Societal outcome HIGH EXTERNAL VISIBILITY

- Safety— continual improvement in every ICAO region
- Security— zero significant disruptions from cyber incidents
- Environment— minimise climate, noise & air-quality impacts

5 Operational performance MEDIUM EXTERNAL VISIBILITY

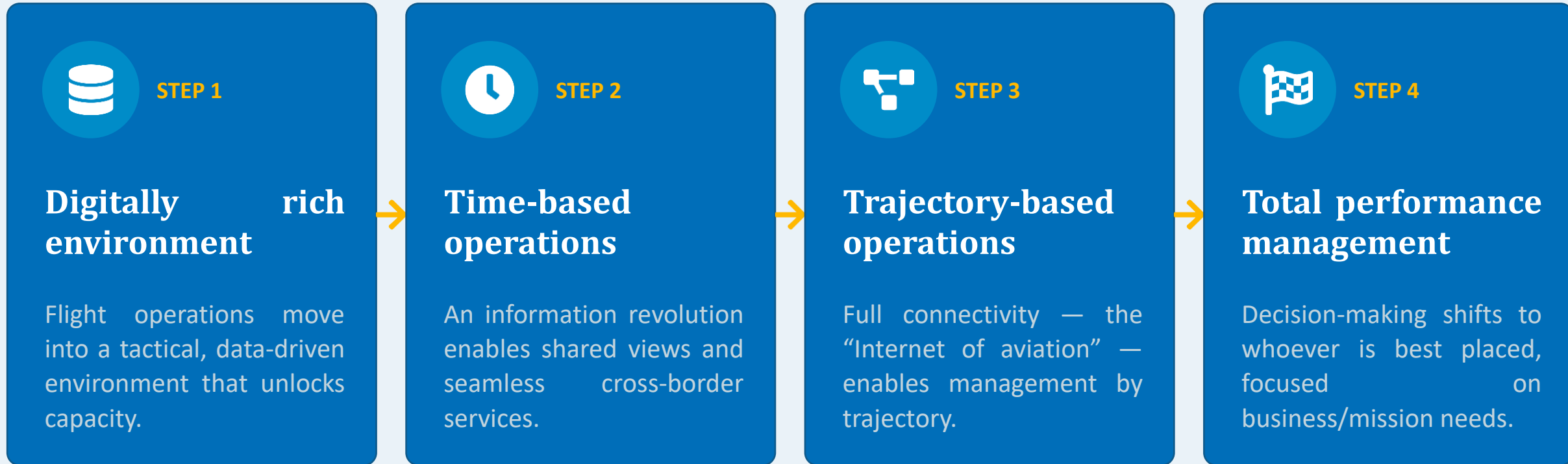
- Cost-effectiveness— no rise in direct cost; higher productivity
- Capacity— scalable with demand; resilient to disruption
- Efficiency— close the gap to optimum trajectories
- Predictability— stable, reliable service delivery
- Flexibility— absorb changes to business trajectories

3 Performance enablers LOWER EXTERNAL VISIBILITY

- Global interoperability — systems compatible operationally & technically
- Access & equity — no member excluded or treated unfairly
- Participation by the ATM community — shared use of resources



The four-step conceptual roadmap still anchors the technical work



Unchanged in structure — but now read against the 2050 horizon and the new AI, climate and resilience emphases.



WHO DOES WHAT IN IMPLEMENTATION

Roles and responsibilities



States

Develop and implement national air navigation plans; provide a stable regulatory framework; run cost-benefit, safety and environmental assessments; share lessons learned.



PIRG / AASPG for the Region

Sets regional priorities and performance objectives; maintains the AFI ANP (Volumes I–III); identifies deficiencies; proposes ASBU changes from experience.



ICAO ESAF Office

Coordinates the regional plan and AASPG alignment; promotes submission of data; provides tools; facilitates assistance and capacity-building for States.



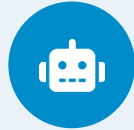
TRANSLATING CHANGES INTO NATIONAL ACTION

What this means for ESAF States



Re-baseline to 2050

Align national air navigation and master plans — and their investment cases — to the extended 2050 horizon.



Build AI & data readiness

Treat data quality and governance as prerequisites; apply the UN AI principles to any automation initiative.



Connect climate workstreams

Tie GANP operational measures to State Action Plans, the LTAG and CORSIA within each State's own timeframe.



Strengthen resilience & cyber

Refresh contingency and continuity plans; design redundancy and cyber-resilience into infrastructure.



Work through APIRG

Select relevant ASBUs in AFI ANP Volume III using the performance-based process, aligned to regional priorities.



Invest in people & new entrants

Sustain competency and training; begin framing UAS and advanced-air-mobility integration.



WHERE TO START

Recommended Action checklist for State personnel

- 1 Familiarise yourself with the 8th edition global strategic level on the GANP and brief your CAA/ANSP leadership.
- 2 Map your current national plan against the 2050 horizon and the refreshed vision.
- 3 Audit data readiness and governance ahead of any AI-enabled automation, against the UN AI principles.
- 4 Align your State Action Plan activities with the LTAG and the GANP climate/innovation section.
- 5 Review and test contingency, business-continuity and cyber-resilience plans using the four levers.
- 6 Confirm your ASBU implementation status in AFI ANP Volume III with the ESAF Office.

Thank You

