Global Aviation Safety Plan (GASP) & Global Air Navigation Plan (GANP)

Prosper Zo’o Minto’o
Deputy Regional Director, Western & Central Africa
International Civil Aviation Organization
What is the GASP?

- Global strategy for safety improvement
- Framework for regional & national plans
- Promotes harmonization & coordination of efforts
Comprehensive Process

- GASP-SG
- AHWG
- SANIS
- State Consultation
- AN-Conf
- ANC
- Council
- State Consultation
- Assembly
Basic Principles for 2020-2022 Edition

• Contains vision, mission and values
• Restructured in different parts
• Clearly delineates responsibilities
• Aspirational Goal + Goals, Targets & indicators
• Applies risk-based approach (HRC)
• Roadmap more predominant
GASP Vision

To achieve and maintain the goal of zero fatalities in commercial operations by 2030 and beyond
GASP Mission

To continually enhance international aviation safety performance by providing a collaborative framework for States, regions and industry.
GASP Values

GASP values include:

- promoting positive safety culture
- promoting sharing & exchange of safety information
- taking data-driven decisions
- prioritizing actions through risk-based approach
GASP Goals, Targets & Indicators

Aspirational Goal: Zero Fatalities

GASP Goals: Organizational
- Targets: Oversight
  - Indicators

GASP Goals: Operational
- Targets: Accidents
  - Indicators
- Targets: Safety Risks
  - Indicators
6 Proposed GASP Goals

1. Achieve continuous reduction of ops safety risks
2. Strengthen States’ safety oversight capabilities
3. Implement effective State safety programmes
4. Increase collaboration at regional level
5. Expand the use of industry programmes
6. Ensure appropriate infrastructure is available to support safe ops
Our Aspirational Safety Goal

ZERO FATALITIES
Contents of the 2017-2019 GASP objectives and associated timelines

Global aviation safety roadmap diagram

Figure A.2. Global aviation safety roadmap diagram
Effective Implementation

Operational Risks

USOAP Audit Results

Scheduled Commercial flights on airplanes above 5.7t 2012-2016

TARGET 4.1
ICAO Recognized functions

TARGET 2.1
Implement Safety Oversight

TARGET 2.2
Positive Safety Margin

TARGET 3.1
Sustainable SSP

TARGET 3.2
Effective SSP

TARGET 6.1
Appropriate Infra-structure

TARGET 1.1
Reduced Accident rate

TARGET 5.1
INDUSTRY assessment programmes

TARGET 5.2
Harmonized KPIs in SMS

TARGET 4.2
Safety risk information to RASG

TARGET 4.3
RASG Risk mgmt. activities

2020
2022+
2022
2022
2025
2022
Yearly
2020
2022
2022
2022
PROPOSAL FOR NEXT GASP

Effective Implementation

- All States to reach a positive safety margin, in all categories
- All States to implement the foundation of a State Safety Programme (SSP)
- All States to implement an Effective SSP, as appropriate to their aviation system complexity
- All States to implement the air navigation and airport core infrastructure
- Maintain a decreasing trend of global accident rate
- Increase the number of service providers participating in the corresponding ICAO-recognized industry
- All service providers to use globally harmonized SPIs, as part of their safety management systems (SMS)
- All States to contribute information on safety risks, including SSP safety performance indicators (SPIs), to their respective Regional
- All States with a positive safety margin, and an Effective SSP, to actively engage in RASG

Operational Risks

- Reduce Accident rate
- Harmonized KPIs in SMS
- Safety risk information to RASG

BBBs

- States that need support in areas with safety margins below zero, to use a RSOO mechanism or another

ICAO Recognized functions

- Implement Positive Safety Margin
- Efficient SSP
- Appropriate Infrastructure

TARGET 1

2020

TARGET 1.1

2020

TARGET 1.2

2020

TARGET 2

2022+

TARGET 2.1

2022

TARGET 2.2

2022

TARGET 3

2022

TARGET 3.1

2022

TARGET 3.2

2025

TARGET 4

2022

TARGET 4.1

2022

TARGET 4.2

2022

TARGET 4.3

2022

TARGET 6

2022

TARGET 6.1

2022

TARGET 5

Yearly

TARGET 5.1

2020

TARGET 5.2

2022

TARGET 5.3

2022

TARGET 5.4

2022

TARGET 5.5

2022

TARGET 5.6

2022

TARGET 5.7

2022

TARGET 5.8

2022

TARGET 5.9

2022
Recent Developments

- ANC Final Review
  - April 2019

- Council Approval
  - May 2019

- Issue WP for A40 (WP/51)
  - June 2019
  - With final 2020-2022 GASP

- Feedback, email: GASP@icao.int
Global Air Navigation Planning （GANP）

- The vision
- A Plan to realize the vision
- Collaboration
- A look to the future
- Opportunity
- Conclusion
To achieve an **interoperable** global air traffic management system, **for all users during all phases of flight**, that **meets agreed levels of safety**, provides for **optimum economic operations**, is **environmentally sustainable** and **meets national security requirements**
CONVENTION ON INTERNATIONAL CIVIL AVIATION DONE AT CHICAGO ON THE 7TH DAY OF DECEMBER 1944
Global Air Navigation Planning

A PLAN TO REALIZE THE VISION
Global Air Navigation Planning
GANP 2013

“Increase the capacity and improve the efficiency of the global civil aviation system”

- Through the GANP, offer a long-term vision to assist all aviation stakeholders, and ensure continuity and harmonization among modernization programmes

- Through the Aviation System Block Upgrades (ASBU), provide a consensus-driven modernization framework for integrated planning based on performance
GANP 2016

- **Objectives**
  - International and overarching framework of a global investment plan: make it more usable towards implementation
  - Keep it **stable** while making the necessary updates/additions
  - Adjust the **periodicity** to the Assembly and ICAO editing cycles

- **A Planning Document for Implementation**
  - GANP should serve as a comprehensive planning tool to support the development and implementation of a harmonized global air navigation system
Aviation System Block Upgrades Framework

- Global interoperable scalable implementation enabled by technological innovation

“ONE SIZE DOES NOT FIT ALL”
Proposals for Enhancement

2019 Update of GANP:
Creating a Multilayer Structure

GLOBAL MANAGERIAL

- GATMOC VISION
- CONCEPTUAL ROADMAP
- GLOBAL PERFORMANCE AMBITIONS

GLOBAL TECHNICAL

- FRAMEWORK
  - BBBs
  - ASBUs
- METHOD
  - PERFORMANCE BASED DECISION MAKING METHOD

REGIONAL

- R&D Programmes
- ANP
  - Vol I
  - Vol II
  - Vol III

NATIONAL

- National Responsibility
- Deployment

Components
Main Goals of the 2019 GANP

• **Evolution of the global air navigation system**
  – Promote investment in *innovation* through research and development activities
  – Align Regional *Research and Development Programmes*

• **Support implementation**
  – ASBU framework
  – Alignment global, regional and national planning
  – *Performance-based* decision making method
  – Optimize *allocation and use of resources* for air navigation
Main Purpose

- **ENHANCE THE PERFORMANCE OF THE AIR NAVIGATION SYSTEM**
  - High social visibility
    - Safety
    - Security / Resilience
    - Environment
  - Medium social visibility: Operational
    - Capacity
    - Efficiency
    - Predictability
    - Flexibility
    - Cost- Effectiveness
  - Low social visibility: basis
    - Access and equity
    - Interoperability
    - Participation by the ATM community
social well-being all peoples of the world

- More quiet
- Cleaner
- Safer
- More resilient
- More profitable
Collaboration is key to succeed

• “No State or stakeholder left behind”
  – Regulators, air navigation service providers, aerodrome operators, airspace users

• Advantages
  – Achievement expected results
  – Maximize benefits
  – Optimum use and allocation of resources
A future full of opportunities

- **Upper atmosphere**
  - Balloons, RPAS, space activities
  - Single homogenous region

- **Low density areas**
  - Different type of aircraft
  - Different missions

- **High density areas**
  - Traffic will continue to increase
  - Same or enhanced level of performance expected
Manned vs. Unmanned traffic

- + 362,000 aircraft
- 23,000 airliners
- Growth of 750/year

- + 4,000,000 drones
- Expected 400k commercial
- Growth of 150,000/year

UNIFY | 2/11/2016
In a time of change...

- **Transformational change is needed**
  - Information Management
    - Digital data MET, AI, FICE,…
    - Information exchange over IP
  - Management by trajectory
    - Time based management
    - Synchronization
    - Automation
Global Aviation Safety & Air Navigation Update

Upcoming Event

40th Assembly
Montreal, Canada
24 September – 4 October 2019
THANK YOU!