ICAO

Twenty Fourth Meeting of the Africa-Indian Ocean Planning and Implementation Regional Group (APIRG/24) & Seventh Meeting of the Regional Aviation Safety Group for the AFI Region (RASG-AFI/7)

Joint Sessions

(Virtual, 1 and 8 November 2021)

Agenda Item 3: **Status of Implementation of the AFI Safety and Air Navigation Targets**

(Presented by AFCAC Secretariat)

SUMMARY

This Working Paper highlights status of implementation of the revised Abuja Safety and ANS Targets (AST) up to June 2021. It also provides an update on the AST monitoring mechanism.

Action required
The Meeting is invited to:-
  a) Note status and challenges related to implementation and reporting of progress;
  b) Urge member States to adopt automated data collection tools for monitoring Safety and ANS targets;
  c) Promote coordination among key stakeholders (especially RSOOs) and increase interventions necessary to assist member States in implementing the ANS Targets, particularly.

REFERENCE(S):
  • Abuja Declaration on Aviation safety in Africa;
  • AFCAC Mechanism for monitoring Safety Systems & Initiatives
  • Revised Abuja Safety Targets incorporating AFI ANS Performance Indicators;
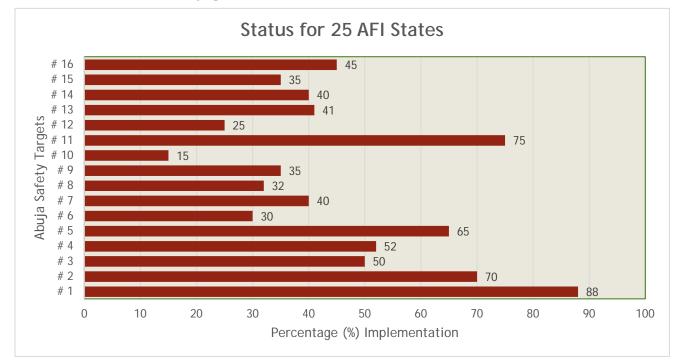 • ICAO GASP and GANP.

1. Introduction

1.1.   The Abuja Safety Targets consists of 16 continental Safety and ANS Targets agreed amongst African member States to enhance aviation safety in Africa. AFCAC was tasked to monitor level of implementation of the Abuja Safety and ANS Targets on behalf of African member States. In this regard, a monitoring mechanism was developed by AFCAC to achieve this purpose. Consistent with the mechanism, questionnaires were sent to member States to provide feedback meant to assist AFCAC to periodically determine the status of implementation of the Abuja Safety Targets.

1.2.   O**nly 25 AFCAC member States** out of 53 responded, and consistent with decisions of the AFI Plan Steering Committee meeting held at the AFI Aviation Week from 16-20 July 2018, AFCAC supplemented data from States with relevant information from relevant IATA and ICAO databases i.e. ICAO iSTARS, USOAP CMA OLF etc.

2. Discussion

a) Through cooperation and collaboration with international organisations and partners, resources were allocated to assist member States to implement the Abuja Safety and ANS targets. These included capacity building initiatives through various workshops and training sessions and deployment of specialist services to member States to assist them implement specific programs. The ICAO AFI Plan, funding from EU-ASA and AfDB and partnership with AFRAA, IOSA and others have contributed significantly towards member States compliance. These interventions resulted in increased level of implementation amongst various member States.

b) The ASTs status of implementation report was compiled using information provided by 25 States and supplementary data from IATA and ICAO iSTARS resulting in the observations as shown in Attachment B and the graph below:-

Further analysis of the 2020 - 2021 performance resulted in the following observations:

- There was limited progress in the implementation of air navigation related ASTs. For example:

  AST # 14 – on implementation of ASBU B0 Modules – average 40% - 2018 Target not met;

  AST # 13 - establishment of seamless Air Navigation Services in the AFI Region – Progress towards 2024 not satisfactory;

  AST # 10 - Implement the transition from AIS to AIM – About 15% member States submitted national action plans - 2018 Target not met;

  AST # 12 – Reduce the rate of aircraft proximity (AIRPROX) occurrences
  - 25% of member States established AIRPROX monitoring mechanism – Progress towards 2023 Target not met.

3. Challenges

   i. Lack of appropriate safety data collection and analysis tools;

  ii. Limited information provided by the States and lack of effective mechanisms and tools for periodic reporting of progress;

 iii. Limited resources/ interventions by responsible entities to assist member States achieve set targets;

 iv. Lack of master plans and required resources available to member States to implement certain targets which require substantial financial resources;

  v. Some key performance indicators are not sufficient to capture the implementation status of corrective action plans and therefore, should be reviewed.

4. Monitoring Mechanism

- In order to address the challenge of information gaps and the need for improved methods to collect safety data and monitor status of implementation of safety systems and targets, AFCAC has for the past two years promoted and encouraged member States to use automated safety data collection and analysis tools to monitor safety oversight systems and targets consistent with the AFCAC Mechanism for Monitoring Safety Systems & Initiatives which AFCAC Plenary endorsed in December 2018. With the prevalence of COVID-19 pandemic, the use of automated and integrated safety oversight systems is the way forward as they promote real-time safety data collection and provide contactless surveillance systems and feedback.

- In terms of implementation, there is a need to identify suitable IT-based tools, related software, and subsequent deployment to member States as necessary.
  There is also a need for coordination and collaboration amongst key regional organizations such as RSOOs and international partners to address implementation constraints, such as the requirement for resources to deploy the IT-based data collection tools and analysis for the benefit of member States. This entails channeling resources and efforts towards areas of greater need such as the ANS targets.

- A number of Safety Performance Indicators are not sufficient to reflect the implementation status of certain targets and therefore should be reviewed.

5. Conclusion

In order to address these deficiencies, the following are recommended:-

a) **AFCAC, ICAO, RSOOs and Partners**
There is need for alignment of targets with GASP/GANP and clearly establish measurable objectives and associated targets, indicators and responsible persons/organizations to provide information. AFCAC should develop an online mechanism and tools for effective reporting of progress, convene periodic meetings with established AST Focal Points, and provide technical assistance to States as required. There is need for effective coordination among key stakeholders, to ensure availability of resources. AFCAC and other Regional entities need to facilitate appropriate continental and regional master plans required to ensure comprehensive implementation of the ANS Targets.

b) **Member States**
There is need to establish and implement automated safety data collection and information sharing tools consistent with AFCAC's Mechanism for Monitoring Implementation of Safety Systems & Initiatives.
Member States are encouraged to develop and implement all required national implementation plans related to various Safety and ANS targets.

ATTACHMENT A

Combined Performance for AFI States

Revised Abuja Safety Target	Assessments	Status of Implementation

1. **Progressively reduce the African accident rate from 8.6 to 2.5 per million departures by the end of 2022, with focus on:**
 	
    ▪ **runway related accidents and serious incidents (Runway Excursion, RE).**
 	
    ▪ **controlled flight into terrain (CFIT) related accidents and serious incidents.**
 	
▪ **Loss of Control In-flight (LOC-I) related accidents and serious incidents.**
 	
▪ **Achieve and maintain zero fatalities in aircraft accidents.**
	The accident rate decreased from 10.34 in 2019 to 3.64 in 2020.
	
	(Source:- ICAO iSTARs)
	
	▪ runway related accidents and serious incidents (Runway Excursion, RE) continue to record a higher rate than the other HRCs.
	
	▪ CFIT related Accidents and serious Incidents rate remained at Zero from 2015 to 2020.
	
	▪ LOC-I related accidents and serious incidents had Zero rate in 2020. However, this may be due to the adverse reduction in traffic volume as impact of COVID-19.
	
	(Source: IATA)
	
	▪ Number of fatalities decreased from 183 in 2019 to Zero in 2020
	
	(Source: ICAO iSTARS)
		Although there was an overall decrease in accident rate and fatalities in 2020 compared to the same period in 2019, this may be attributed to the drastic reduction in the volume of traffic due to the impact of COVID-19 pandemic. Notwithstanding, more efforts need to be put in place to continue to maintain a downward trend if the target for 2022 is to be achieved.

2. **All States establish and strengthen autonomous Civil Aviation Authorities with independent regulatory oversight, sustainable sources of funding and resources to carry out effective safety oversight and regulation of the aviation industry by 2022.** ▪ **States that need support in areas with safety margins below zero, to use a regional safety oversight organization's or another State's ICAO-recognized functions by 2020.** ▪ **States effectively exercise the safety oversight functions with a**	At least the 28 States that have attained the 60 per cent EI Target, amongst the 46 audited RASG-AFI States, are effectively autonomous.	Comprehensive data on status of CAAs not available.

Revised Abuja Safety Target	Assessments	Status of Implementation
positive safety margin in all areas by 2022. **States to delegate certain safety oversight functions to RSOOs or other States, by the end of 2022 in areas with safety margins below zero, and as appropriate.**		

3. **States resolve:**
 	
  ▪ **Existing SSCs by June 2018;**
 	
  ▪ **Newly identified SSCs within 6 months from the date of its official publication by ICAO.**
	From 2012 to 2020:
	
	  ▪ 22 SSCs found in 15 States;
	
	  ▪ 21 resolved in 14 States.
	
	  ▪ 1 SSC still exist in one State.
	
	  ▪ Exceeded 12-month deadline
		Target not met

4. **States abide by the timelines and provide resources for implementation of ICAO/State Plans of Action**
 	
  ▪ **All States to have accepted ICAO Plans of Action by 2019 and**
 	
  ▪ **abide by the timelines and provide resources for their implementation.**
	37 States have accepted ICAO Plans of Action and are at different stages of implementation
	
	(Source: AFI Plan)
		Data collected was insufficient to determine level of implementation of the ICAO/ State Plans of Action.

5. **States progressively increase the Effective Implementation (EI) percentage under the ICAO USOAP such that States with:** ▪ **EI < 60% attain 60% by 2020;**	By December 2020, only 59.62% of the AFI member States had reached the target of 60% EI and the group of States has an average EI of 57.18%. This is 1.49% increase compared to 2019.	Target not met (EI < 60% attain 60 per cent by 2020). Number of AFI States with EI of 60 per cent and greater has increased significantly from 15

Revised Abuja Safety Target	Assessments	Status of Implementation
▪ **60% ≤ EI ≤ 70% attain 80% by 2022;** **70% < EI attain 95% by 2028.**		in 2014 to 32 by December 2020. The efforts of ICAO and AFCAC should be intensified to accelerate the implementation of the CAPs.

6. **For the purposes of SSP/SMS Implementation, all States:**
 	
    ▪ **to have a Foundation SSP established, addressing all pre-requisites;**
 	
    ▪ **to have an Effective SSP with appropriate maturity level established;**
 	
▪ **to contribute information on safety risks, including SSP SPIs, to the RASG-AFI;**
 	
▪ **with a positive safety margin, and an Effective SSP, to actively engage in RASG-AFI safety risk management activities (analysis of safety risks, design and implementation of risk mitigation actions).**
 	
All Service Providers to use globally harmonized SPIs as part of their SMS.
	▪ By December 2020, at 24 RASG-AFI States initiated SSP implementation with One State (Rwanda) attaining Level 4. None of the States contributed information on safety risks to RASG-AFI.
	
	(Source: ICAO iSTARS)
		Target not met
		
		Goal 3.1 of the 2020 – 2022 Edition of the GASP requires all States to implement the foundation of an SSP by 2022. Therefore, the ICAO Regional Offices (ESAF/WACAF) had incorporated SSP Implementation Assistance to States in their work programme, which includes review of the SSP Foundation Protocol Questions (PQs). The AFI Plan Project on SSP Implementation by States should be broadened to include all RASG-AFI States and not just States with 60% EI and greater.

7. **All International Aerodromes to be certified by 2022,**	As at 31 December 2020, 41 International Aerodromes were certified out of 129 within RASG-AFI States (31.78 per cent). *(Source: ICAO)*	Target not met (At least one international aerodrome in every State to be certified by end of 2020). From the responses to the questionnaire, aerodrome certification is still a serious challenge for AFI States.

Revised Abuja Safety Target	Assessments	Status of Implementation
• **At least one international aerodrome in every State to be certified by end of 2020;** • **All airport operators to participate in the ICAO-recognized industry assessment programme for airports (APEX) by end of 2022;** • **At least one international aerodrome in every State to establish a Runway Safety Team (RST) by end of 2020.**	• 24 out of 48 RASG-AFI States certified at least one international aerodrome. • 47 airports out of 175 received an APEX review • 42 aerodrome out of 175	However, almost all AFI States indicated that the process of certification of international aerodromes is in progress.
8. **Require all African airlines to obtain an IATA Operational Safety Audit (IOSA) certification:** • **All States to establish an appropriate framework for recognition of IATA operational safety audit (IOSA) and IATA Standard Safety Assessment (ISSA) as effective safety mechanisms; All African airlines to obtain IOSA or ISSA certification, as appropriate, by the end of 2022.**	From a total of 20 airlines on the IOSA Registry in 2012 there was an increase to 34 airlines on the Registry by end of December 2020. One new airline in ESAF (first ever in the Region) was also added to the ISSA Registry by December 2020. By end of 2020 only four (4) RASG-AFI States: Mozambique, Rwanda, Togo and Zimbabwe had established some form of legal instrument that recognizes IOSA. One (1) additional State in ESAF close to finalizing. *(Source: IATA)*	The Target to be further pursued. There is a need for distinction between the establishment of an appropriate framework by States for recognition of IATA operational safety audit (IOSA) and IATA Standard Safety Assessment (ISSA) as effective safety mechanisms, and IOSA registration.
Air Navigation (ANS) Target	**Status of Implementation**	**Recommendations**
9. **All States to establish an effective and operational SAR organization:**	• Based on data collected as part of AFI Plan project, 25 SAR agreements have been signed between States and 35 new Draft agreements have	Target not met.

Revised Abuja Safety Target	Assessments	Status of Implementation
• **Development of a National SAR Plan by end of 2018;** • **Conclusion of SAR Agreements/ MoUs with all neighboring States by end of 2018;** • **Organisation of multi-agency, multi-State and combined Regional SAR exercises to test SAR systems in place involving as many SAR units as practicable by end of 2019.**	been developed to either supersede old agreements or formalised cooperation where this has been lacking. • Eight (8) States have developed National SAR Plans and two (2) States have draft National SAR Plans in place. *(Source: ICAO)*	States are progressively developing SAR Plans, though at a slow pace.
10. All States to implement the transition from AIS to AIM: • **Development of a National Action Plan By end of 2018;** • **Implementation of the National Action Plan in accordance with the ASBU Block 0 D-ATM by end of 2020.**	• 36 per cent of States have fully completed Phase 1 Consolidation; • 44 per cent have partially accomplished Phase 2 Going Digital. *(Source: ICAO)*	No comprehensive data available. • There is need to establish and promote sufficient data collection tools; • Effective coordination among key stakeholders and appropriate regional master plans/ interventions are required to ensure effective implementation of this target.
Air Navigation (ANS) Target	Status of Implementation	Recommendations
11. All States to implement PBN procedures for all instrument runways. • **75% of Instrument Runways to have PBN procedures by end of 2020;** • **100% of Instrument Runways to have PBN Procedures by end of 2025.**	Available information indicated that 33 out of 48 RASG-AFI States attained target of 100 per cent PBN implementation, representing 68.75 per cent. *(Source – ICAO iSTARS)*	Although group average is high, a number of States have not initiated PBN procedures for their instrument runways. There is need for effective coordination among key stakeholders and appropriate regional interventions are required to ensure effective implementation of this target.

Revised Abuja Safety Target	Assessments	Status of Implementation
12. All States to progressively reduce the rate of aircraft proximity (AIRPROX) occurrences in their managed airspaces by at least 50% annually from Dec. 2017 baseline, in order to attain and maintain a level of zero (0) Airprox by correspondingly reducing errors in the following contributive factors: • **Co-ordination between ATS Units (50%);** • **Airspace Organization and ATC Procedures (50%);** • **Mobile Communications (50%)** • **Poor Crew Discipline on board aircraft (50%)**	No comprehensive data to establish level of implementation.	Target: 2023 So far, no comprehensive data available. There is need to establish and promote sufficient data collection tools.
Air Navigation (ANS) Target	Status of Implementation	Recommendations
13. Establishment of seamless Air Navigation Services in the AFI Region: **a) All States to ensure provision of harmonized Air Navigation Services in terms of flight separation, interoperability of CNS/ATM systems to reduce airspace complexity and achieve seamless operations along major air traffic flows.** **b) Various initiatives formulated by the Regional Economic Communities (RECs) and ANSPs within the AFI Region to be harmonized.**	Activities towards integration of the AFI Region towards seamless ANSPs is anticipated through RECs. COMESA recruited experts to spearhead harmonization of Air Navigation Services etc.	Target: 2024 There is need for appropriate regional master plans/ interventions to ensure effective implementation of this target.
14. All States to implement ASBU B0 Modules: • **All States to develop National ASBU Plan by end of 2018.**	IATA ASBU Tracker indicate that: ▪ Total percentage of RNAV GNSS APRCH was 63 per cent for ESAF and 79 per cent for WACAF;	Target not met Comprehensive information on current Status of ASBU implementation in AFI Region was not available.

Revised Abuja Safety Target	Assessments	Status of Implementation
	▪ Total percentage of RNAV SID was 40 per cent for ESAF and 20 per cent for WACAF; ▪ Total percentage of RNAV STAR was 40 per cent ESAF and WACAF 46 per cent. *(Source - ICAO/ IATA)*	• There is need to establish and promote sufficient data collection tools; • There is need for appropriate regional master plans/ interventions to ensure effective implementation of this target.
15. All States to develop and implement a National Plan for the reduction of CO$_2$ emissions due to international civil aviation: • **develop a National Plan for CO$_2$ reduction by end of 2020;** • **full implementation of the National Plan by 2022.**	25 States in AFI Region have developed and submitted to ICAO, National Plans for the reduction of CO$_2$ emissions. 10 States are receiving assistance under Phase II of the ICAO assistance project, funded by the European Union (EU), on Capacity Building for the Mitigation of CO$_2$ Emissions from International Aviation. *(Source – ICAO)*	States need to be encouraged to develop or update their Action Plans using the guidance in the ICAO Doc 9988.
16. All States ensure that their ANSPs effectively participate in the African ANSP Peer Review Programme by: • **Joining the programme and having in place, an annual Peer Review plan of activities.** • **Develop and implement appropriate corrective action plans to satisfactorily address Peer Review recommendations.**	Membership has continued to grow with current participation including: CANSO members (all 17 ASECNA member States, South Africa, 3 Robert FIR States, Uganda, Mozambique, Zambia, Algeria etc). *(Source – ICAO)*	More States need to be encouraged to join the ANSP Peer Review Programme in order to meet the 2022 target.