



ICAO

**Fifth Meeting of the Africa-Indian Ocean Regional Aviation Safety Group (RASG-AFI/22)  
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**Title AVIATION SAFETY OVERSIGHT TOOLS AND THEIR RELEVANCE IN THE  
IMPLEMENTATION OF REGIONAL SAFETY PROGRAMMES.**

*(Presented by Banjul Accord Group Aviation Safety Oversight Organization (BAGASOO))*

**SUMMARY**

This working paper presents the significance of safety oversight tools in enhancing States capacity to regulate their civil aviation systems. It discusses a number of safety oversight tools developed by BAGASOO and highlights the merits in the use of aviation safety tools as a means of implementing regional safety programmes.

Action by the Meeting: The meeting is invited to agree with the actions proposed in paragraph 3.1

<i>Strategic Objectives</i>	The working paper relates to the safety and air navigation capacity and efficiency strategic objectives
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**1 INTRODUCTION**

- 1.1. The emergence of Information and Communication Technology (ICT) and its steady and widespread application in various facets of our personal and communal endeavors have helped revolutionized the human and organizational approach to the conduct of day to day activities.
- 1.2. The world has become ever more conscious of the immeasurable benefits derivable from the ICT and there has been increasing mobilization of its peoples towards fully embracing the culture of ICT for enhanced productivity and performance. The automation and real time monitoring capabilities of the ICT makes it by far a preferred option over manual organized systems given the value that it adds to the organization, processing and management of data. This becomes even more critical when it is recognized that world populations and activities of certain sectors including aviation have continued to increase steadily and future implications may be unpleasant if more modern approaches are not employed in data handing, processing and dissemination.
- 1.3. It is projected that growth in passenger traffic within the African continent will reach 350 million in 2036 with an average annual increase of 5.7% in aircraft traffic until 2034 (IATA). A corresponding growth in aviation infrastructure is expected to attract commensurate growth in safety oversight activities of States. The capabilities of States to properly conduct adequate safety oversight over increasing aviation activities and infrastructure and identify in real time, safety concerns and resolve them will increasingly depend on their ability to progressively move away from the use of manual systems and adopt more modern and efficient ICT driven data management systems. In addition, manual systems have proven to be more rigorous, time

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consuming and prone to generating errors and information loss, particularly where increasingly large data is involved.

1.4. Safety Oversight tools occupy a significant place among the family of IT tools given their relevance to the aviation sector, specifically in supporting the regulatory capacities of civil aviation authorities by facilitating the smooth monitoring of the State's aviation system. Safety Oversight tools are information management software and databases essential for recording, organizing, analyzing and retrieval of aviation-related data essential for tracking and monitoring of trends.

1.5. They offer a number of benefits –

- a) support risk-based data driven oversight systems,
- b) trend analysis enabling aviation safety inspectors to identify emerging or potential treats to aviation safety,
- c) c) assists States to demonstrate compliance with safety oversight requirements
- d) d) allow for effective data analysis and facilitate information sharing.

1.6. Areas in which safety oversight tools have proven useful in civil aviation are : inspector training and qualification, personnel licensing, incidence and occurrence reporting (ECCAIRS, ADREP, IBIS), surveillance systems (WTS, SAFA and SOFIA)

## 2. DISCUSSION

### BAGASOO SAFETY OVERSIGHT TOOLS

2.1. BAGASOO currently has to its credit a number of safety tools. These are the Inspector Training Records and Qualification System (ITRAQS), Inspector Activity Tracking System (ISATS) and Foreign Aircraft Safety Assessment Programme (FASAP).

2.2. The ITRAQS is a web based automated recording application designed for the effective implementation of the Inspector Training System in a Civil Aviation Office. While the Inspector Training System establishes the framework and processes for managing the training and qualification of inspectors, the ITRAQS database software is the tool used in recording the activities arising from implementation of the ITS processes and principles. The ITRAQS is an ICAO compliant system with features for management of trainee account and access level, planning formal and local courses for trainees, recording course qualification dates and modes (fully qualified, alternate means of compliance, probational qualification), uploading certificates and proof of completion, signing off on OJT levels I, II and III and using internal and external OJT instructors, managing reports, generating a scope of authorization and providing accurate and vital information on the scope of inspector training.

2.3. The BAGASOO CITS (inspired by the FAA's Inspector Training System) has over the years progressively expanded in scope from the initial field of Flight Standards to cover all safety related specialties including Aerodromes and Air Navigation Services specialties namely Air Traffic Services, Search and Rescue, PANS-OPS, Aeronautical Meteorology, Aeronautical Information Services and Communication Navigation and Surveillance.

2.4. The ISATS is a form of work tracking system designed for the collection storage organization

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analysis and retrieval of data originated by aviation safety inspectors in the accomplishment of Organizational job functions. The core features of the ISATS include:

- a work data entry feature which 1) collects several combinations of data from the various possible types of inspections or inspector work activities, 2) records related findings by providing for the codification of inspector comments regarding observation and evaluations and 3) records associated follow up until closure;
- facilitates the collection and analysis of data records covering inspector work activities in the following categories – certification, surveillance, personnel licensing, resolution of safety concerns, administration and aviation education
- subsystem for recording the particulars of all aviation safety service providers covering aerodromes, flight standard and ANS specialities (air operators, approved maintenance organization, approved training organization, airport operators and air navigation service providers and certificate holders
- subsystem for recording licensed personnel in the State,
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- subsystem for the recording registered aircraft and other aviation facilities such as airports as well as other major service provider equipment, infrastructure and simulators;
- a project planning module for the planning of proposed projects such as annual surveillance plans; and
- report generation features which enable the
  - o generation of customizable reports in graphic and tabular formats
  - o viewing of recorded activities which have either been planned, are ongoing or completed
  - o data filtering and trend analysis using numerous variables e.g. date of inspection, location, specialty, work activity code, service provider facility or equipment.

2.5. The ISATS enables prompt identification of potential and existing safety issues, provides information for informed decision-making and optimal use of organizational resources by ensuring that oversight is reorganized and gauged to match the scale and distribution of potential threats or concerns within an aviation system.

2.6. **The FASAP** is a web-based application which supports the collection, exchange and generation of reports on findings arising from ramp inspection performed on foreign aircraft operating within the state of implementation. The application and its policy guide the CAA on the classification of findings and the collection of proof documents to support closure. This application also provides a platform for the sharing of safety data among implementing states and operators within a region.

2.7. BAGASOO safety tools are currently been implemented in BAG States and in a number of non-member States. They are soon to be integrated into a single suit of applications called Safety Information Management for Civil Aviation (SIMCA). The SIMCA will bring together the BAGASOO Safety Oversight Tools into a single coordinated unit, allowing the implementing CAA to monitor and control several processes from one portal.

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### REGIONALISATION OF SAFETY TOOLS

- 2.8. Regional programmes covering a group of States can be more effectively coordinated and implemented when they are designed and built on a system of identical sub-programmes implemented by the individual States of the region. Some core regional programmes of RSOO such as Regional Safety Programmes and Regional training programmes could be more easily implemented when they are rooted on identical platforms established at the level of States for collection of relevant data which can be transmitted and consolidated at the regional level.
- 2.9. For example with the adoption of ITRAQS by the member States of the BAG Region, BAGASOO is able to annually establish the priority areas of training needs in the region determine in an order of priority, the courses for which training is most needed, and this is effectively facilitated by the common training policy and programmes adopted by all the States of the region. On the basis of this determination, BAGASOO prioritizes and coordinates training assistance in the region.
- 2.10. In addition, BAGASOO is also implementing the FASAP application on a regional level for all its member States. The FASAP application provides a platform for the sharing of safety data among states and operators within the BAG region. It also helps identify specific and prevalent safety concerns arising from the assessment of foreign aircraft, thus providing a basis for enhanced surveillance by States within the region.
- 2.11. Other regional initiatives that can be facilitated using a similar approach and safety oversight tool are programmes for:
- the establishment and coordination of a regional pool of qualified inspectors; and
  - the development of an internal regional capacity for training and qualification of instructors in order to achieve less dependence on the use of external instructors.
- 2.12. Regional programmes which are reliant on similarly structured individual State databases provide an avenue whereby resources can be more effectively and optimally applied to meet the common safety oversight needs of the region. This in-turn promotes the standardization of processes within the states.

### 3 ACTION BY THE MEETING

- 3.1 The meeting is invited to ...
- Urge AFI to formulate and implement programmes and initiatives that will promote strong interests in States and direct their efforts towards the use of safety oversight tools in lieu of manually managed systems;
  - Urge AFI RSOO's and COSCAPs to consider partnering with BAGASOO to promote the use of safety tools by States within their regions.
  - Encourage States who are yet to acquire aviation safety tools to consider utilizing these safety oversight tools in the implementation of their safety oversight processes and activities.

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