INTERNATIONAL CIVIL AVIATION ORGANIZATION

AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP
EIGHTEENTH MEETING (APIRG/18)
Kampala, Uganda (27 – 30 March 2012)

Agenda Item 3.7: **Other Air Navigation Matters**

IMPLEMENTATION OF SAFETY MANAGEMENT SYSTEMS

(Presented by Kenya)

SUMMARY
Although safety management provisions are requirements into Annex 11, ANS (K) rolled out SMS implementation in its entire spectrum of services in compliance with Kenya Civil Aviation (Air Navigation Services) Regulations, 2008. The regulations require ANS to implement SMS as part of licensing process. ANS has included the SMS in the Manual of ANS Operations, the document to be evaluated by the regulator prior to approval of licensing.
The concept of SMS has been around for several years. Most of the procedures to comply with the requirement exist in some form in the current safety system. However, there are number of ways in which SMS differs from the traditional approaches.
Safety accountability resides at the top of the organisation, with the Director ANS as the Accountable Officer (AO). The AO appointed SMS Coordinator to manage the implementation and SMS throughout the organisation. The SMS coordinator established an implementation team that comprise ATM, CNS and AIS personnel to support the SMS implementation. Since each airport has its own specific organizational structure, processes and operational environment, airport teams were also established to support in the implementation at their specific airports under the guidance of the SMS coordinator.
Its biggest limitation is staffing. Consequently, its implementation required collateral duty assignments to existing staff. This is a significant challenge for ANS.
The implementation is being conducted in phases based on the four pillars of SMS safety policy and objectives, safety risk management, safety assurance and safety promotion.
Action by APIRG/18 is at paragraph 4
REFERENCES **ICAO DOC 9859**
Related ICAO Strategic Objectives: A

1. **INTRODUCTION**

1.1.   ANS rolled out SMS implementation based on the latest developments and guidelines published by ICAO and as required by the regulator. SMS is a formal top-down business like that is built on basic safety principles. It is intended to build on existing safety processes. Key differences from traditional

approaches are that it takes a proactive approach to safety management and spreads safety responsibility for safety throughout all levels of the organization.

1.2.   ICAO had required all member States and all aviation service providers within those states starting in 2009 must implement a safety management system that as a minimum:

a)   Identifies safety hazards
b)   Ensures the implementation of remedial action necessary to maintain agreed safety performance.
c)   Provides continuous monitoring and regular assessment of the safety performance.
d)   Seeks continuous improvement in the overall performance of the safety management system.

1.3.   The SMS implementation is consistent with ICAO Doc. 9859 and contains the four essential pillars: Safety Policy and Objectives, Safety Risk Management, Safety Assurance and Safety Promotion. These four components each have significant activities that collectively support the four pillars of safety.

1.4.   Implementing SMS requires significant financial and human resource investments. Otherwise, experience has shown implementation will be less than wishful thinking for a variety of reasons, such as:

a)   Inadequate safety budgets;
b)   Unrealistic expectations;
c)   Immature product offering;
d)   Too few subject matter experts on staff

1.5.   ANS carried out the implementation process in a humble manner. First and foremost it conducted a gap analysis and created of a project plan. The project plan included milestones for critical items such as dates for development and submission of policies and procedures, training of staff and review by SMS team. These milestone dates are important for planning implementation responsibilities and commitments.

1.6.   ANS conducted awareness training to its entire staff. This was followed with the formulation of the safety policy. Safety culture which has the most significance influence on the overall integration of SMS components culture change was prioritized in the training.

1.7.   Kenya ANS is undergoing major changes concerning technology development, new work organizations and practices. These fundamental changes have effect on the foundations of safety work and introduce changes in existing safety culture and driving forces of safety.

2.   **DISCUSSION**

2.1.   Experience with SMS implementation activities has demonstrated that cultural as well as organizational change is required to successfully implement SMS. Managing organizational change has to be simple and relevant. If change is forced on people normally problems arise. This takes time and resources to steer back on course. As such, it is advisable to implement SMS in a phased approach. During the SMS planning phase, the implementation team and management ensured that safety culture and change management requirements were integrated into everyday business processes and work activities.

2.2.   Effective safety management requires a genuine commitment to safety on the part of everyone in the organization. The priority of safety must be demonstrated in the attitudes, decisions and methods of operation at all levels. The success of an SMS is completely dependent on the development of a positive

safety culture in the organization and relies on five key concepts: upper level management buy-in, a just culture, safety event reporting and feedback, training and education, and program ownership.

2.3.   The roadmap for implementation of SMS included identifying:

a)   The responsibility throughout the organization and committing the organization to implementing SMS.
b)   The accountable Officer.
c)   The person in ANS who is responsible for implementing the SMS.
d)   The team to plan the implementation.

2.4.   SMS section has been created within ANS with the name ANS SMS. As the name suggests, this section will implement and carry out SMS activities within ANS. The section has appointed an SMS coordinator together with SMS team. Meanwhile, besides doing their normal duties under deployment in ANS, these personnel have also to function in the SMS section.

2.5.   After appointing the implementation team, a gap analysis was conducted to determine shortfall in service processes or operations areas where SMS requirements are not fully realized and require implementation activities. The items identified as missing or deficient formed the basis of project plan. The implementation plan commenced with areas likely to be the most responsive to improvement with minimal efforts and prioritized activities that required longer terms to complete or more extensive resources.

2.6.   Top management must both support and interact with the SMS program and the entire organization must see management not just giving the appearance of promoting the SMS program, but also actually being involved with it. Director ANS has been supportive and keen observer of the SMS team events to ensure that smooth transition takes place.

2.7.   Safety event reporting is a key foundation of SMS. If safety personnel are not informed of event occurrences, there can be no investigations. A non-punitive just culture towards affected personnel is also crucial for if inappropriately applied can destroy the entire initiative. The organization must precisely define the limits of what is acceptable behavior. Reporting culture where individuals are willing to report incidents and anomalies e.g. faulty equipment and a well balanced blame approach enhances the willingness to give such reports under a no-blame culture was introduced that comprises for respect of individuals' skills and experience.

2.8.   Training on program basics, implementation, and continued operation is essential. All personnel, from senior management to new-hires, must receive understandable and documented SMS training. It must be tailored to the personnel receiving it. The frontline players received operationally-specific training. Documentation plays a key role in sustaining an effective program. The entire events have been documented.

3.   **SMS IMPLEMENTATION**

3.1.   Phase 1 Safety Policy and Objectives

3.1.1.   SMS implementation typically begins the unique framework to satisfy civil aviation authority's SMS requirements. Since each station is different there was generic and specific implementation training to meet each station requirement.

3.1.2.   Standard elements for Safety policy was developed by all and communicated.

3.1.3. In summary the SMS implementations plan for phase1covered the following:

    a)   Identifying the SMS Coordinator and appointment of formal cross-functional SMS Team
            including Safety Committee functions
    b)   Conducting a gap analysis
    c)   Developing an SMS implementation plan
    d)   Develop documentation relevant to SMS.
    e)   Developing and establishing means for safety communication.

3.2.   Phase 2 Safety Risk Management (Reactive process)

3.2.1. The technique consists of:

a)   *Hazard Identification -* identify hazards

b)   *Risk Assessment* – determine the risk, assess the risk and analyze the risk associated with hazards
        identified
c)   *Risk Mitigation and Tracking* – Treat (mitigate) the risks for the hazards identified and analyzed.
        Re-evaluate, analyze and communicate risks.

3.3.   Phase 3 Safety Assurance (Proactive and Predictive process)

3.3.1. Develop a minimum standard for safe operations

3.3.2. Develop self inspection program that ensures safety is maintained

3.3.3. Develop training and record keeping program that meets requirements of each station.

3.4.   Safety promotion

3.4.1. This pillar is achieved by establishing a culture of safety, training employees in safety principles, and allowing open communication of safety issues.

3.4.2. It encourages ANS to promote safety as a core value with practices that support a sound safety culture. Safety promotion continues to be a combination of safety culture, training, and data sharing activities supporting implementation and operation of an SMS in ANS.

4.   **ACTION BY THE MEETING**

4.1   The meeting is invited to note the information contained in this paper.

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