*International Civil Aviation Organization*

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**Agenda Item 3: Aerodrome Certification and Safety Management System**

# AERODROME SMS JOURNEY IN THE MALDIVES – CHALLENGES & OPPORTUNITIES

(Presented by Maldives)

**SUMMARY**

This paper presents an overview of the Aerodrome SMS journey in the Maldives. A look back at the early understanding of SMS and the numerous challenges that we are still facing in implementation and highlights significant opportunities and benefits of SMS.

## 1. INTRODUCTION

1.1 Maldives was first introduced to SMS in 2006 when a visiting ICAO officer took us through the fundamentals of SMS. It was an eye-opener that required an immense thought process. During the early 2000s, the Flight Safety Management System (FMS) was prevalent among most air operators. However, it has become evident that relying solely on the FMS is inadequate. The disparity between SMS and FMS is quite pronounced, representing a shift from establishing standards based on past accidents to setting them according to current plans and future goals.

1.2 The legislative framework of the Safety Management Systems (SMS) is derived from the Primary Law (Acts 2/2001 & 2/2012) through the Maldivian Civil Aviation Regulations (MCAR's). The SMS have been mandated by the regulatory body of the Maldives CAA since 2009 for all air operators and aerodromes under their Air Safety Circular, ASC 00-2 at a fundamental level. At present, a comprehensive regulatory framework for Integrated Safety Management Systems is established under MCARs 100, enacted in 2022.

1.3 The overall implementation of Safety Management Systems (SMS) in the Maldives is subject to rigorous oversight by the Maldives Aviation Safety Team (MAST) and its subsidiary bodies, namely the Safety Regulation Group (SRG) and Safety Review Board (SRB). MAST's primary objectives include evaluating the safety performance of the Maldivian aviation system, identifying specific deficiencies, and recommending corrective actions. The SRG, comprising managerial and operational personnel, convenes monthly to scrutinize safety-related activities undertaken by both the Civil Aviation Authority (CAA) and industry stakeholders. On the other hand, the SRB, a ministerial-level committee, consists of representatives from the CAA Board, the Chairperson of the National Accident Investigation Coordination Committee, and delegates from the Maldives National Defense Forces (MNDF) Coast Guard. Chaired by the Minister for Civil Aviation, the SRB is responsible for overseeing high-level safety matters.

## 2. DISCUSSION

2.1 The main challenges facing an organization in an effective SMS implementation are as follows:

Implementing a Safety Management System (SMS) in aviation organizations is challenging due to various factors. Here are some of the key challenges they face:

- **Cultural Change:** Fostering a safety culture within the organization remains one of the most significant challenges. This involves shifting attitudes and behaviors towards safety, which can be difficult, especially in organizations where production or other priorities traditionally take precedence over safety.

- **Resource Allocation:** Implementing an SMS requires dedicated resources in terms of personnel, time, and funding. Allocating these resources can be challenging, particularly for smaller organizations with limited budgets.

- **Training and Awareness:** Ensuring that all employees, from top management to frontline staff, are adequately trained and aware of their responsibilities within the SMS continues to be a challenge. This necessitates ongoing training programs and communication efforts.

- **Regulatory Compliance:** Keeping up with evolving regulatory requirements and ensuring compliance with them remains challenging for aviation organizations. Regulations related to SMS can vary by jurisdiction and may change over time, requiring organizations to stay updated and adapt accordingly.

- **Data Collection and Analysis:** Effective SMS relies on robust data collection and analysis processes to identify hazards and assess risks. Aviation organizations may face challenges in collecting relevant data, ensuring its quality, and analyzing it effectively to derive meaningful insights.

- **Communication and Reporting:** Effective communication is essential for the success of an SMS, both internally within the organization and externally with regulatory authorities and other stakeholders. Developing clear communication channels and reporting mechanisms remains challenging.

- **Change Management:** Implementing an SMS often requires organizational changes and adjustments to existing processes and workflows. Managing these changes effectively, addressing resistance, and ensuring buy-in from all stakeholders continue to be significant challenges.

- **Continuous Improvement:** SMS is not a one-time implementation but requires continuous monitoring, evaluation, and improvement. Sustaining momentum and commitment to ongoing improvement efforts remains challenging over the long term.

- **Complexity of Operations:** Aviation organizations operate in a complex and dynamic environment with various stakeholders involved, including pilots, air traffic controllers, maintenance personnel, and regulators. Coordinating safety efforts across these diverse stakeholders remains challenging.

2.2 Implementing SMS (Safety Management System) at an aerodrome can offer various opportunities and benefits, including:

- Prevention of Accidents or Incidents: SMS aims to identify and mitigate safety risks before they escalate into major issues. By analyzing data, conducting safety audits and inspections, and implementing risk controls, SMS can improve safety across the entire organization, reducing the chances of accidents and incidents.

- Proactive Safety: SMS focuses on proactive safety management rather than reactive safety management. It seeks to predict potential safety issues before they occur by monitoring possible safety hazards and taking actions to avoid them. This approach helps enhance safety culture and continuously improve safety performance.

- Cost Savings: Accident or incident investigations and the remedial actions that follow are costly for aviation. SMS helps mitigate these costs by preventing accidents and incidents, reducing legal fees, damage claims, medical costs, and loss of income.

- Compliance with Regulations: SMS regulations provide a systematic, proactive, and data-driven approach to safety management, ensuring compliance with regulatory requirements. It helps aerodrome operators institute a corporate safety culture that promotes efficiency and effectiveness.

- Reputation and Stakeholder Trust: Aviation organizations that prioritize safety build trust with stakeholders, including passengers, employees, regulators, and investors. A good safety record increases customer loyalty, employee engagement, regulatory compliance, and confidence, leading to a positive reputation and enhanced trust.

- By implementing SMS, aerodromes can improve safety, reduce costs, comply with regulations, and enhance their reputation among stakeholders.

## 3. ACTION BY THE MEETING

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

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