INTERNATIONAL CIVIL AVIATION ORGANIZATION

ASSEMBLY — 35TH SESSION

TECHNICAL COMMISSION

Agenda Item   24.3:   Flight safety enhancement programme

THE IMPERATIVES AND IMPLEMENTATION OF AVIATION SAFETY OVERSIGHT FROM A DEVELOPING ECONOMY PERSPECTIVE

(Presented by Pakistan)

INFORMATION PAPER

1. **INTRODUCTION**

1.1   Safety Oversight is not an option. Invisible to the public, this key element assures that you reach your destination safely, each time you board a commercial airliner.

1.2   The genesis of Safety Oversight lies in the Annex 6 to the Convention, which stipulates that the State of the Operator will issue an Air Operator Certificate (AOC) or equivalent document for commercial air transport operations after due process and scrutiny of the operator. It further mandates that the State will supervise the operator to ensure that it continues to maintain the requirements under which the AOC was originally issued. These imperatives necessitate the establishment of a well-defined safety oversight mechanism, supported by appropriate legislation. The implementation of safety oversight is a multifaceted process, entailing continuous adaptation and assimilation of new concepts. With the advent of the systems approach, there is a growing recognition of diverse elements that impact on safety, many of which lie within the domain of the Regulatory Authority itself. This recognition has altered the conventional concepts of safety oversight. From the Regulatory aspect it has introduced an introspective element to safety oversight. As example, the State is charged with the responsibility to ensure the safety of operations at its aerodromes, which in many instances are State-owned and operated. As mandated, it entails the promulgation of appropriate legislation and a regulatory framework, defining aerodrome certification procedure and establishing an entity for conducting the oversight functions.

1.3   ICAO Doc 9734, Safety Oversight Manual, Part A: 'The Establishment and Management of a State's Safety Oversight System', contains fundamental guidance material for a systems approach to the provision of safety oversight by ICAO Contracting States. The identification of 8 critical elements of a State oversight system is the core concept outlined in the document. The document lays great stresses on the

fundamental need to appropriately address each one of these elements, in order to have an effective safety oversight system.

2.   TAPPING INDIGENOUS RESOURCES

2.1   Oversight of air carriers is a complex and dynamic activity. To remain effective, the Regulatory Authority has to continually evaluate current capabilities and limitations. It has to work out methods to resolve those limitations and upgrade capabilities, while continuing the self-learning at each step. For a developing country like Pakistan, with limitations of resources and trained manpower, this undertaking poses a significant challenge. Recruiting qualified manpower and sourcing recurrent/upgrade training are two major problems confronting the CAA. Licensed Operations and Airworthiness Inspectors with endorsements on current aircraft types are required to conduct certification and oversight functions. The inexorable limitations as a public sector organization preclude the possibility of Pakistan CAA offering salaries comparable to commercial carriers. To tackle this conundrum, an interim strategy to draw suitably qualified personnel from the National flag carrier has been devised. At present two Operations Inspectors are serving on deputation with the CAA, with their salaries being adjusted against the Airline's landing and parking charges.

3.   COMPLYING WITH ICAO STANDARDS

3.1   Pakistan strives to harmonize its National regulations with the relevant ICAO Annex provisions. The implementation of ICAO Standards and Recommended Practices (SARPs) in our national framework is an ongoing process. Any differences which exist between National regulations and relevant Annex provisions is identified and communicated to ICAO and National Operators, at the earliest. We await the expected publication of the 'Safety Oversight Manual, Part B – The development and Management of Regional Safety Oversight Systems', as it would facilitate interpretation of ICAO provisions. Allied with the development of compliance checklists and protocols, it would radically improve the implementation status of various annex provisions.

3.2   In keeping with Pakistan's policy of compliance with the ICAO recommendations, a National Safety Oversight coordinator has been appointed. The Director Air Transport has been charged with the responsibility, which entails coordination among the various departments of the Authority, responsible for aviation safety oversight within Pakistan.

3.3   To ensure compliance by operators under its jurisdiction with operations and airworthiness regulations, Pakistan CAA has invested in the training and development of its operations and airworthiness human resources. It is making great efforts to nurture and sustain a safety culture in the complete National aviation system. Inevitably, this calls for the establishment of a harmonious and cooperative relationship with National operators.

3.4   A proactive approach to safety has rapidly gained universal acceptance as the optimal strategy to reduce the incidence of incidents and accidents. The quest for this goal has evolved new concepts and concurrently expanded the scope of 'safety oversight'. Based on the research of safety experts in aviation and other fields, the limited focus on provisions of Annexes 6 and 8, is being supplanted by a comprehensive, systems approach. Taking cognizance of these developments ICAO has become a driving force in the application and globalization of these new concepts.

3.5   The ICAO sponsored International Universal Safety Oversight Audit Programme (IUSOAP) serves as a powerful tool in this regard. Defined as a regular, mandatory, systemic and harmonized programme of safety audits of States, it has multifaceted safety objectives. Its core purpose is to gauge the adoption of ICAO SARPs by Contracting States. It also pinpoints shortcomings and offers guidance with the development and implementation of corrective action plans, thus ensuring safety of flight worldwide. The comprehensive systems approach has ramifications on future ICAO safety oversight audits and will encompass safety-related provisions in all safety-related Annexes from 2005. This widening ambit of audit, underlines the fundamental change in the philosophy of the safety oversight process. From the aspect of a State Regulatory Authority, this demands understanding, analysis and implementation of key concepts, such as SMS, at both micro and macro levels. It also entails cooperation and coordination within various organs of the State Regulatory Authority and the operators, at the national level. At the next threshold level, this cooperation implies coordination of activities and exchange of information by each State's regulatory body with ICAO.

4.   **ASSIMILATING NEW CONCEPTS**

4.1   Pakistan CAA is committed to improving and enhancing the safety and efficiency of air transport operations. We are maximizing resources and efforts dedicating towards developing and implementing a comprehensive, integrated System Safety approach to the regulation and oversight of AOC holders.

4.2   System safety refers to the structured means for identifying, analyzing, assessing, and controlling hazards and risks of the entire system as an integrated whole. A system is a set of components (e.g., pilot training, dispatching, and maintenance) that act together as a whole (e.g., an air carrier) to achieve a common goal (e.g., transporting passengers). It is required that each component include certain safeguards (e.g., documented procedures) that minimize hazards and risks to safety. This System Safety approach demands the application of technical and managerial skills designed to identify, analyze, and mitigate hazards and risks within components of the aviation system. This includes the people, procedures, equipment, facilities and software employed by aviation entities.

4.3   In our efforts to improve oversight of operator activities we have adapted our own system elements in line with other models of effective strategies. At present we are working on several areas including:

> *Accident Prevention*: Based on detailed analysis of the recurrent causes of accidents, prevent accidents before they happen through appropriate, targeted, and systematic interventions in the aviation system.

> *Regulatory Reform*: We endeavour to implement a regulatory process that is timely, responsive, and consistently applied.

> *Certification and Surveillance*: We maintain dialogue with operators and seek new approaches to working with industry on certification, inspection, surveillance. The annual AOC renewal inspections are a means to assess progress in these areas.

> *Safety Information Sharing and Analysis*: Develop partnerships with the aviation community to share data and information supporting safe, secure aviation.

5.   **REGIONAL COOPERATION**

5.1   Pakistan actively supports regional co-operative initiatives to improve flight safety. It participates in the ICAO project COSCAP-South Asia developed under the ICAO Aviation Safety Oversight Programme. COSCAP is the acronym for: "Co-operative Development of Operational Safety and Continuing Airworthiness". This remains the prime source for Operational and Airworthiness training for PCAA. Pakistan CAA has encouraged participation of National operators in these training activities and also extends them full cooperation in implementation of the evolving ICAO SARPs. Pakistan is also participating in the European Union initiative which aims at providing technical assistance to States in the region. Efforts are underway to facilitate and streamline certain required processes, which would enable greater participation in EU sponsored programmes.

6.   **CONCLUSION**

6.1   There are significant challenges ahead. The predicted increases in regional and international air travel, will demand tighter regulatory controls and continuous improvements in oversight activities. States will have to anticipate and mobilize requisite resources to develop the manpower and technical resources. There will be a need to overcome the inevitable resistance to change, learn new technologies and methods, and to adapt and continually evolve in the dynamic environment of aviation. In this quest for safety there will never be a "final" version of "the perfect" safety oversight programme!

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