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Agenda Item 5: ICAO / Member State / Industry Presentation

SAFETY MANAGEMENT FOR POST COVID-19 PANDEMIC SERVICE RESUMPTION OF THE AVIATION INDUSTRY

(Presented by Hong Kong, China)

SUMMARY

With the post-pandemic relaxation of global travel restrictions and quarantine requirements, international air travel resumed at a rapid pace with airlines competing for resources to support their increasing services. This brought about multiple challenges to the industry's service resumption, requiring due consideration from a safety management perspective, varying from aircraft and components reliability to the competency and training of air crew, maintenance and ground support personnel, etc.

The Civil Aviation Department of Hong Kong, China (HKCAD) shares in this paper relevant experiences in reactivation of aircraft from long-term parking or storage, and ensuring the competency of aviation personnel in order to enable a safe and orderly resumption of service. The HKCAD is committed to working closely with the industry to oversee the performance of their post-pandemic service resumption operations with the key focus on safety management.

1. INTRODUCTION

1.1 With the post-pandemic relaxation of travel restrictions around the world, airlines have been increasing their services to meet the travelling demand. While airlines needed to reactivate a large number of aircraft that were put on long-term parking or storage and to ensure the adequacy of crew resources, recency and competency of such crew to operate and maintain the aircraft, the HKCAD played a crucial role in providing early guidance to the airline industry on service resumption, as well as closely monitoring safety related aspects and sharing observations with the industry and aviation authorities to ensure the safe and orderly resumption of flight operations.

1.2 Through this paper, Hong Kong, China, shares our experiences from the airworthiness and flight operations perspectives on the regulatory guidance provided, enhanced oversight activities and facilitation, especially among local airlines' reactivation of aircraft and flight operational personnel, ensuring their resumption of operations are conducted in a safe, efficient and orderly manner.

2. DISCUSSION

2.1 During service resumption, the industry faced emerging challenges which encompassed the reactivation of aircraft following some lapses of maintenance actions beyond the approved maintenance schedules, primarily due to limited maintenance resources and facilities available during their prolonged parking or storage. An insufficient supply of qualified and experienced personnel as well as time pressure for the required initial and reactivation training for such personnel also added to the challenges to airlines and approved maintenance organisations (AMOs). To ensure airlines and AMOs would have allowed adequate lead time for planning, preparation and coordination with all relevant counterparts, the HKCAD took a proactive approach to ensure aviation safety by promptly providing airlines and AMOs with regulatory guidance and best practices in the industry.

2.2 One of the key focuses of the HKCAD's oversight activities is to ascertain airlines' service resumption plans are in line with the relevant guidance and requirements by the HKCAD, ICAO and States of Design of aircraft. In this connection, the HKCAD conducted additional and enhanced oversight activities during reactivation of aircraft and service resumption. A risk-based approach on prioritisation of regular and enhanced oversight activities was also adopted with a view to minimising any adverse occurrence trend to be developed. The HKCAD's regulatory guidance provided and enhanced surveillance activities as well as necessary facilitation to industry are detailed in ensuing paragraphs.

2.3 Aircraft and Components Reliability

2.3.1 The surge of air travel demand introduced an unprecedented challenge to the aviation industry. A considerable number of "inactive" aircraft are required to return to service over a relatively short period of time. It is imperative that an action plan be developed through a robust safety management system to promptly identify and address any potential weaknesses or deficiencies on those aircraft resulting from extended inactivity. Hence, in addition to the adherence to the standard reactivation protocols required and recommended by aircraft manufacturers, the HKCAD provided early regulatory guidance to address potential latent defects resulting from extended inactivity of aircraft subjected to environmental impacts so as to further enhance the safety margins during the early stage of the aircraft reactivation period.

2.3.2 The HKCAD's regulatory guidance included issuance of various Airworthiness Notices (AN) and Safety Information Bulletins (SIB) promptly dispatched to related and targeted groups in the industry to share the latest information on precautionary actions and enhanced maintenance practices to be taken. The HKCAD also explored collaborative efforts with the airlines and aircraft manufacturers on acceptable alternative means to support the re-positioning of aircraft from long-term parking or storage locations to appropriate AMOs before their resumption of commercial operations. The return to service of aircraft after prolonged parking and the demand on both the standards and adequacy of maintenance personnel and facilities on the number of additional aircraft in a short period of time also posed potential safety risks unique to the current post-pandemic situation. Against the above, the HKCAD requested airlines and AMOs to review and supplement their procedures, as appropriate, on the following:

a) assess aircraft and component reliability for early fault detection;

b) review the applicability of non-mandatory airworthiness recommendations issued by the aircraft and engine manufacturers;

c) determine necessary supplemental inspections on systems that may be susceptible to environmental factors; and

d) strengthen the defect handling, deferral and return to service policy.

2.3.3 The HKCAD has taken a risk-based approach to increase the number of aircraft inspections and on-site audits on AMOs and airlines' maintenance activities to proactively monitor their progress and actions taken on those reactivated aircraft, and continue to closely monitor the situation to ensure their continued compliance with the required airworthiness standards and requirements. The above approach has insofar supported over eighty percent of the passenger aircraft's reactivation that were put on long term parking or storage. The HKCAD will continue to monitor the remaining aircraft's reactivation programme and actions to be taken ensuring all aircraft are reactivated in a safe and orderly manner.

2.4 **Adequacy of Qualified Operational and Engineering Personnel**

2.4.1 With the intention to relieve the acute manpower demand resulting from the rapid service resumption, the HKCAD has fostered several platforms offering workforce support to the industry. These measures include the Joint Maintenance Management Cooperation Arrangement, which enables Hong Kong aircraft maintenance organisations to tap into a wider aircraft maintenance talent pool from the Mainland China and Macao, China, and the Labour Importation Scheme for the Transport Sector – Aviation Industry launched by the government of the Hong Kong Special Administrate Region with the aim for human resources influx to the industry.

2.4.2 From flight operations' perspective, in order to ensure airlines' operational readiness for post-pandemic service resumption and planned increase of flight services, airlines have been requested to continuously review their operational and training capacity, and to regularly submit their manpower status of qualified maintenance personnel, flight crew and cabin crew, with such projection to their aircraft reactivation and fleet expansion plans.

2.4.3 Noting that flight crew and operational personnel are in high demand, the HKCAD encourages and is supportive of the local airlines' initiatives on their enhanced collaboration with local institutes as well as sourcing overseas facilities on the training of flight crew. In this connection, the HKCAD has been proactively responding to the industry's needs by working closely with local airlines as well as flying training institutes to facilitate consideration and approval for flight crew training programmes and conversion of overseas professional licences to Hong Kong licences for local airlines. Amongst others, through processes of continuous evaluation, the HKCAD has been working closely with local airlines to adopt procedures to cater for flight crew with varying background of training and experience, taking into consideration from industry best practices, to refine and implement the reactivation and revalidation processes for flight crew and other operational personnel returning to service in a more timely and effective manner.

2.5 **Enhanced Monitoring of Training for Operational Personnel**

2.5.1 In line with the safety management principles of the ICAO and the industry's best practices, the HKCAD has in place a comprehensive safety oversight and surveillance programme to closely monitor the operating standards and safety performance of local airlines. To support the continuing post-pandemic recovery of air traffic, the HKCAD has enhanced the safety oversight and surveillance activities on local airlines, including but not limited to stepping up the inspections and audits on their flight operations, cabin safety, training and checking arrangements, etc., so as to ensure that they continue to maintain high safety and operational standards.

2.6 **Forward-looking**

2.6.1 Whilst the HKCAD has been closely keeping in view the situations on reactivated aircraft and resumed flight operations, and requiring supplementary maintenance actions to be conducted to ensure the airworthiness and maintenance status of aircraft before their repositioning from storage locations. The HKCAD will continue our review and further enhance our regulatory guidance and oversight activities as necessary, for early detection and identification of any potential risks and take prompt actions to ensure airlines' resumption of operations are continued in a safe and orderly manner.

2.6.2 In IATA's 2023 Annual Review report, passenger demand for international travel is not expected to be fully recovered to pre-COVID-19 levels until 2024.

2.6.3 In this connection, 2024 and 2025 will pose a critical significance for both the regulatory authorities and the aviation industry. During this three-year post COVID-19 cycle, when aircraft and airports return to full-fledged operations, stakeholders shall remain vigilant and prepared for potential challenges, which could range from latent defects to unforeseen environmental and human factors, that may have emerged.

3. ACTION BY THE MEETING

3.1 The Meeting is invited to:

a) note Hong Kong, China's proactive efforts in the process of safety management oversight of the service resumption of airlines and other aviation activities; and

b) share their experiences and national best practices.

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