57TH CONFERENCE OF
DIRECTORS GENERAL OF CIVIL AVIATION
ASIA AND PACIFIC REGIONS

Incheon, Republic of Korea
4 – 8 July 2022

AGENDA ITEM 10:   PREVIEW OF PAPERS – 41ST SESSION OF ICAO ASSEMBLY

AEROSPACE INDUSTRY PROVISIONAL PROPOSALS FOR THE 41ST SESSION OF THE ICAO ASSEMBLY

Presented by International Coordinating Council of

Aerospace Industries Association (ICCAIA)

SUMMARY

The COVID-19 Pandemic has been a defining moment in aviation history. The upcoming Assembly will be pivotal moment to review the lessons learned and consider proposals on how to position international civil aviation to flourish in the future. ICCAIA intends to propose measures to the 41st Assembly (A41) that aim to build resilience to mitigate the effect of any future shocks to the industry, to improve the implementation of new Standards as we endeavor to recover; to build the airspace capacity needed to sustainably grow our sector; and to encourage the adoption of a Long-Term Aspirational Goal for carbon emissions reduction. This paper provides a preview of four key proposals by the Aerospace Industry.

AEROSPACE INDUSTRY PROVISIONAL PROPOSALS TO THE 41ST SESSION
OF THE ICAO ASSEMBLY

1.   INTRODUCTION

1.1   The COVID-19 pandemic resulted in a series of uncoordinated border closures, quarantines and lockdowns resulting in the effective closure of all international travel. While ICAO was able to build a response to the COVID-19 crisis through the CART and CAPSCA, it required time to organize and was primarily reactive in nature. A major transition in the international community's response to disasters is a shift from a culture of reaction to a culture of anticipation and prevention. Civil aviation has made a similar shift in the transition from a reactive culture to a proactive/predictive approach to safety, security, and border control management. One of the key lessons learned from this pandemic is that a more proactive and rapid approach is required. Two years into the extended recovery, it is time to capture lessons learnt and to prepare to better manage future health threats.

1.2   The ongoing development of ICAO Standards and Recommended Practices is essential to the development and growth of international civil aviation. Issues concerning the process used by ICAO to establish new or amended SARPs and subsequently roll these out to States and the industry came into increased focus during the pandemic. The approach used to establish applicability dates for new SARPs has remained relatively unchanged since the inception of ICAO, except for increasing the time allotted between the adoption of Standards by Council and their applicability date. Today, States, as well as the industry have faced challenges in the way that applicability dates are applied to new standards, especially where detailed regulatory requirements are needed for new processes or technologies, and multiple parties are involved in the delivery of new systems. These challenges are becoming increasingly profound given the pace of innovation and affect both States and industry.

1.3   Historically, both States and the industry have been challenged in meeting ICAO applicability dates. ICAO applicability dates are determined using information available when adopted and the time forecasted for States and the industry to implement new requirements. As there are no established and formalized feedback loops providing updates to ICAO on the progress of implementation, this often leads to situation where ICAO has little time to change an applicability date when it proves impracticable to implement on time. An example of such a challenge in the APAC Region was the implementation of the ICAO Language Proficiency Requirements. In this case, the ICAO Assembly recognized that the requirements were particularly challenging as they did not allow for a phased approach and it eventually urged States to accept licenses that did not fully meet the ICAO requirements for a temporary period. In recent history, the aerospace industry has been challenged in meeting ICAO applicability dates and complying with new equipage requirements within the timeframes provided by ICAO and its member States, despite having input to those decisions. During the pandemic, the challenge of meeting ICAO applicability dates was exacerbated by staff shortages and interrupted supply chains.

1.4   Prior to the pandemic, ICAO, member States and the industry focused considerable energy in implementing new systems to accommodate the pre-pandemic growth of air transport. As the civil aviation industry recovers from the pandemic, we will need to redouble our efforts in this area. The civil aviation community is facing new and complex challenges. Emerging forms of air transport are now mixing with conventional air traffic and operating in new airspace environments with different stakeholders. Drones, urban air mobility, commercial space operations and other types of higher altitude operations are rapidly becoming the norm and not the exception. Airspace is a finite resource, and the existing capacity of the global aerospace system will eventually limit air transport growth.

1.5   At the same time, the air transport sector has continued the proactive, collaborative approach to dealing with its climate change impact begun prior to the pandemic. During the pandemic, global attention on aviation's contribution to climate change has only intensified, and the industry has re-committed to an ambitious action plan to achieve net-zero carbon emissions by 2050. ICCAIA supports the adoption by the ICAO Assembly of a long-term aspirational goal for international civil aviation at its 41st Session.

2.   DISCUSSION

An Integrated Approach to Health, Facilitation and Crisis Response

2.1   At the beginning of the COVID-19 pandemic, States were urged to prevent the spread of COVID-19 by implementing the relevant Annex 9 provisions through implementation of their National Air Transport Facilitation Programme (NATFP) and to strengthen their preparedness plans for managing risks relating to communicable disease outbreaks. Some States reported significant challenges, such as lack of coordination, collaboration, implementation, and communication between the various stakeholders, including coordination with health authorities in the aviation-related decisions. The Council of ICAO and its Council Aviation Recover Task Force (CART) played an active role in facilitating the restart and recovery of International Civil Aviation through its recommendations and guidance material. CAPSCA also played a key role by providing a forum for sharing information, in allowing collaborative decision making across both health and aviation stakeholders, and in ensuring the appropriate dissemination of information, as well as developing extremely useful guidance in the form of the ICAO Manual on Cross-border Risk Management, in line with WHO recommendations.

2.2   Despite CART leadership and CAPSCA guidance, the approach was largely reactive. Drawing on the outcomes from the High-Level Conference on COVID-19, the Ministerial Declaration, the work of CAPSCA, CART and Facilitation panel, a global crisis response framework for air travel facilitation during a major health threat is needed, allowing for predictive action and a rapid response to avoid uncoordinated actions that lead to extended disruption of the aviation system. Definition of such a framework will require strong leadership and cross-sectoral cooperation. The development of a crisis response framework should involve all aviation stakeholders from regulators, health organizations, associations, and industry representatives. A multidisciplinary effort is needed, including experts from health, facilitation, and safety. The development of a crisis response framework should bring together CAPSCA and facilitation groups of experts to develop a basket of measures that can be used by each Member State, depending on their specific environment and local context, to adjust its own strategy.

Phased Approach for SARPs Applicability

2.3   In recent years, ICAO has acknowledged the challenges faced by States and the industry in implementing new or amended SARPs by the applicability date, even when the time allowed from the date that a Standard is adopted to the date that it becomes applicable was expanded. There have been numerous times that both States and the industry were unable to meet defined ICAO applicability dates. Consequently, on several occasions States and the industry have requested that ICAO provide relief from pending applicability dates for Standards. Recent examples include halon replacement fire extinguishing compounds, language proficiency requirements, 25-hour cockpit voice recorders, and most recently autonomous distress tracking.

2.4   States and the industry share the burden of meeting many applicability dates. States are required to establish new regulations or acceptable means of compliance for new ICAO requirements. This can be a time-consuming process for any civil aviation authority. The industry can only commence design, build and apply for approvals from their authorities once these requirements are fully in place. In recent examples, some States have filed differences to the standards, anticipating that they will not be ready with full regulations by the applicability date.

2.5   Each time that States and the industry cannot meet an ICAO applicability date, it undermines the relevancy of such Standards and places an undue burden on member States and the industry. Establishing a single due date for new systems or equipage has been challenged in the past and will not be fit-for-purpose in the face of the rapid pace of innovation. The Council and Air Navigation Commission are aware of the current challenge. In the past both bodies have called for the Secretariat to undertake midpoint checks on the readiness of States and the industry to implement ICAO Standards.

2.6   A phased approach, with appropriate milestones that provide feedback to ICAO on the pace of implementation is needed. Such milestones and feedback loops will provide the information needed by ICAO and its member States to realistically monitor implementation against real world data. This process should consider the entire development cycle required to implement new requirements including the time required for States to establish the needed operational and certification requirements, as well as the time required for the industry to design, test, and apply and acquire approvals from the appropriate State authorities. A phased approach toward applicability dates would serve to de-risk the implementation of innovative, new, and complex systems and requirements, as well as easing the workload for States and industry

The Next Era of Air Traffic and Airspace Management

2.7   Aviation technology has developed through a process of continuous change and improvement. Throughout this evolution, ICAO has played a central role in achieving international consensus for the adoption of Standards that facilitate the implementation of globally harmonized and interoperable systems. While this evolution has been continuous, it has also been punctuated by periods of key transformational changes. As international civil aviation emerges from the COVID-19 pandemic, the sector faces new and complex challenges. Emerging forms of air transport are now mixing with conventional air traffic and operating in new airspace environments with different stakeholders. Drones, urban air mobility, commercial space operations and other types of higher altitude operations are rapidly becoming the norm and not the exception. Airspace is a finite resource, and the existing capacity of the global aerospace system will eventually limit air transport growth.

2.8   To date, the main role of automation in air traffic management was to provide information that can help humans carry out all cognitive functions, from routine tasks such as continuous monitoring in normal conditions to decision making and manoeuvring traffic in abnormal conditions. Advancements in big data, artificial intelligence, and robotics will essentially change our concepts of what automation can do. Automation is expected to evolve and become more focused on critical and decision-making tasks, as well as monitoring for non-normal events, as opposed to actively flying/controlling. The judicious use of the automation will be essential to accommodate the growth of conventional air traffic, as well as new modes of air transport in a safe, secure, and sustainable manner. To reach this future operational end state, fundamental changes to the airspace structure, the services and infrastructure, and the procedures and rules governing how it is used are required.

2.9   The application of high levels of automation to increase airspace capacity and safely integrate emerging forms of air transport across all strata of airspace will require a system wide and holistic planning strategy, including safety, environmental and security aspects of such systems. A global consensus on the characteristics for the next era of air traffic and aerospace management system from a user's perspective, or CONOPS, will be an essential underpinning to guide the further development of the ICAO Plans. The global aviation system needs, and on the precipice of, foundational change. A holistic analysis of the needs of a growing and evolving air transport sector is needed to enable such change. It will be important to recognize the need for ICAO a continued role in this critical formative period and to advance the development of a global consensus on the next era of air traffic and aerospace management.

Aviation's Commitment to Address its Climate Impact

2.10   The aviation industry strongly believes the adoption of a long-term aspirational goal at ICAO 41st assembly will: help the sector unlock resources to achieve emissions reductions by de-risking long-term investments and providing certainty to the capital markets; avoid a market imbalance between competing operators on international routes; ensure a common global framework and ambition on climate action; and a deliver a strong foundation for concerted international action by maintaining ICAO's leading role in this area.

2.11   Governments at a global level are encouraged to support action by ICAO to deliver a long-term aspirational goal for aviation climate action at the 41st Session of the ICAO Assembly, and any subsequent work on means of implementation, including capacity building, technology transfer (particularly for SAF deployment) and financing of the decarbonisation of the air transport sector.

3.   ACTION BY THE CONFERENCE

3.1   The Conference is invited to note the information and proposals contained in this paper that aim to:

a) Build resilience to mitigate the effect of any future shocks to international civil aviation;

b) Improve the implementation of new Standards as we endeavor to recover; and

c) Build the airspace capacity needed to continue the sustainable growth our sector in the future.

d) Adopt a globally harmonized long-term aspirational goal to achieve net-zero carbon emissions for civil aviation.

— END —