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Agenda Item 8: Air Transport Matters

ICAO'S WORK FOR ECONOMIC DEVELOPMENT OF AIR TRANSPORT

(Presented by the Secretariat)

EXECUTIVE SUMMARY

This paper reports on ICAO's priority work under the Strategic Objective – Economic Development of Air Transport, which aims at enhancing capabilities of States to:

- a) improve air connectivity, create more competitive business opportunities, increase consumer's benefits and choices, and reduce financial burden and costs in performing regulatory oversight functions; and
- b) take pragmatic measures to build a transparent, stable and predictable investment climate to support aviation development, in particular, increase accessibility to funding for aviation infrastructure development and investment in air connectivity.

The paper summarizes the Organization's work related to air transport policy and regulation, as well as infrastructure management and funding/financing. It also presents ICAO's work related to aviation data and analyses, which focuses on big data, business analysis tools and air traffic forecasts, through the establishment of a joint venture model, at a specific project level, in collaboration with partners.

Finally the paper provides an overview of the case study that ICAO, the industry and Dominican Republic are carrying out in order to show a successful example of Aviation development.

Action:	Refer to Section 3
<i>Strategic Objectives:</i>	Economic Development of Air Transport

1. INTRODUCTION

1.1 The Economic Development of Air Transport is one of the five Strategic Objectives established by ICAO. It aims at fostering a sound and economically-viable civil aviation system that provides the freedom to travel affordably, enhances economic efficiency and transparency, facilitates access to funding for aviation infrastructure development and promotes technology transfer and capacity building to support the growth of air transport for the benefit of all stakeholders.

1.2 As described in the ICAO Business Plan for 2017-2019, the ultimate goals of this Strategic Objective are to remove impediments to economic sustainability of air transport and to elevate the priority given to aviation on the issue of funding and financing. States can use aviation as an effective development tool by placing it at the centre of the national/regional development framework and international financing for development, resulting in: a) improving air connectivity; b) creating more competitive business opportunities; c) increasing consumer's benefits and choices; and, at the same time, d) reducing financial burden and costs in performing their regulatory oversight functions. The delivery of the results with respect to this Strategic Objective will contribute to the growth and efficiency of the air transport sector and the global economy, as well as the expansion of trade and tourism.

2. ICAO'S WORK FOR ECONOMIC DEVELOPMENT OF AIR TRANSPORT

2.1 The **Appendix** summarizes the Organization's work related to air transport policy and regulation, as well as infrastructure management, including funding/financing of aviation infrastructure development. Particular attention is paid to the examination and development of international agreements on liberalization of market access, air cargo and air carrier ownership and control. The Air Transport Regulation Panel (ATRP) will continue to examine international agreement by which States could liberalize market access. It will develop a specific protocol to facilitate further liberalization of air cargo services (up to 7th Freedom) and a standalone multilateral convention on foreign investment in airlines.

2.2 The Appendix also includes ICAO's work related to aviation data and analyses, which focuses on big data (for example, Automatic Dependent Surveillance – Broadcast (ADS-B) System data and Market Intelligence Data Transfer (MIDT) data), business analysis tools, air traffic forecasts, with the establishment of a joint venture model, at the specific project level, in collaboration with partners. According to the latest long-term air traffic forecasts, global passenger and freight traffic will grow at +4.6 per cent and +4.4 per cent respectively, on an annual basis to 2032.

2.3 The implementation of the work programme described above supports ICAO's *No Country Left Behind* (NCLB) initiative, with a view to contributing to enhancing economic sustainability of air transport.

3. Suggested Action

3.1 The Meeting is invited to:

- a) support ICAO's work for Economic Development of Air Transport;
- b) encourage States to apply and follow ICAO's policies and guidance in the air transport field in their regulatory practices;
- c) encourage States to attend ICAO upcoming meetings;
- d) coordinate with ICAO in meeting States' needs of data, analysis and tools to promote air transport development in the region; and
- e) encourage contributions to the voluntary Air Transport Fund.

APPENDIX

1. STATE OF AIR TRANSPORT OF THE NORTH AMERICA, CENTRAL AMERICA AND CARIBBEAN (NACC) STATES

1.1 Air carriers of the NACC States (the ICAO NACC Office is accredited to 21 States) represented 24 per cent of the world passenger traffic measured in revenue passenger-kilometres (RPKs), and recorded an annual +4.6 per cent growth in 2017. Airlines in the region carried 1 011 million passengers in 2017 (+3.7%, compared with 2016).

1.2 With 1 552 billion RPKs performed in 2017, airlines of the United States accounted for 83 per cent of total passenger traffic performed by airlines in the NACC States. Airlines in Canada and Mexico accounted for 12 per cent and 5 per cent, respectively. These three States in the region recorded a growth of +3.3 per cent, +10.3 per cent, and +16.1 per cent in RPK in 2017, respectively. Several carriers in the region demonstrated double-digit growth in RPKs and contributed to the passenger traffic growth in the NACC States such as Air Canada (+11.5%), Spirit Airlines (+13.3%), and Aeromexico (+17.2%).

1.3 Around 36 per cent of the passenger traffic performed (in RPK) by airlines in the NACC States is international. International traffic of the region increased by +5.8 per cent in 2017. This growth was supported by the double-digit growth of Canada (+12.2 per cent) and Mexico (+22.8 per cent). The United States is the largest domestic market in the world with 39 per cent share of the world domestic traffic, and recorded an annual growth of +3.6 per cent in 2017.

1.4 Airlines in the region expanded their capacity in Available Seat-Kilometres (ASKs) by +4.6 per cent in 2017. The capacity in ASK increased by +5.8 per cent for international services and by +3.9 per cent for domestic services.

1.5 The passenger load factor remained stable in 2017 (83.1 per cent), reaching 81.1 per cent for international services and 84.2 per cent for domestic services.

1.6 Cargo traffic performed by carriers of NACC accounted for 20 per cent of the world freight traffic measured in Freight Tonne-Kilometres (FTKs), and recorded an annual growth of +8.9 per cent in 2017, an improvement from the +2.4 per cent increase in 2016. Over 61 per cent of the air freight traffic performed by NACC carriers is international. Carriers of the United States represented 91 per cent of the total freight traffic of the region, and registered a growth of +7.6 per cent.

1.7 Revenue Tonne-Kilometres (RTK) performed by airlines in the region represented 23 per cent of the world total RTK, and grew +5.6 per cent in 2017. International RTK of the region grew by 7.8 per cent in 2017. Information on the ranking of States' RTKs for international scheduled air services can be found in the Annual Report of the ICAO Council.

1.8 Aviation is a major engine of economic growth for States, by increasing their tourism and facilitating world trade. Air connectivity is indispensable for tourism in many in NACC States, especially for Least Developed Countries (LDCs) and Small Island Developing States (SIDS, i.e. thirteen Caribbean States). In 2014, aviation supported USD 27 billion in tourist spending across the Caribbean region, of which USD 24.3 billion was leisure tourism and USD 2.7 billion was business tourism. This amount would be sufficient to cover public spending on healthcare and education in the entire Caribbean region.

2. DISCUSSION

2.1 AIR TRANSPORT POLICY AND REGULATION

2.1.1 The main achievements made by ICAO in the follow-up work to the Sixth Worldwide Air Transport Conference (ATConf/6, 18-22 March 2013) are highlighted below. Many of the tasks were undertaken through the Air Transport Regulation Panel (ATRP), some of which are still continuing.

2.1.2 **ICAO's long-term vision for air transport liberalization.** The Council adopted the long-term vision in June 2015, which was disseminated to Member States (State letter 2015/54), as an inspirational guide for the pursuit of their liberalization goals. States are encouraged to give regard to, and apply the vision in their policy making and regulatory practices.

2.1.3 **Market access, air cargo and air carrier ownership and control:** The fourteenth meeting of the ATRP held in July 2017 agreed to continue its work on the examination of an international agreement by which States could liberalize market access. The Panel also agreed to develop a specific protocol to facilitate further liberalization of air cargo services (up to Seventh Freedom of the Air) and a standalone multilateral convention on foreign investment in airlines (air carrier ownership and control) . At its working group meeting held in Montego Bay, Jamaica in April 2018, a draft multilateral convention on foreign investment in airlines and a draft proposal to facilitate further liberalization of air cargo services were proposed. The meeting agreed that more time should be given to the members to consider the proposals. The next working group meeting is scheduled for October 2018 with the panel meeting planned for April 2019.

2.1.4 **Fair competition:** ICAO's efforts focused on developing tools to enhance the transparency of States' competition rules, and to foster cooperation, dialogue and regulatory compatibility. In this respect, the compendium of competition policies and practices in force nationally or regionally was developed and is being regularly updated by the Secretariat. The database now covers 129 States, or 68 per cent of the ICAO membership. The compendium is available at <http://www.icao.int/sustainability/compendium/Pages/default.aspx>.

2.1.5 **Consumer protection.** A set of core principles on consumer protection was endorsed by the Council in June 2015 (State letter 2015/60). These core principles aim at providing high-level guidance to States and concerned stakeholders to ensure that air passengers are duly protected in the three phases of their travel. A database on States' consumer protection rules and regulations has been developed and is available at <https://www.icao.int/sustainability/Pages/ConsumerProtectionRules.aspx>. States and concerned stakeholders are encouraged to provide feedback to ICAO regarding the database and their experiences in applying the guidance.

2.2 INFRASTRUCTURE MANAGEMENT

2.2.1 The rapid growth of air traffic will place an increased pressure on existing aviation infrastructure. Without an appropriate and timely level of investment and the collaboration of multiple States to modernize and expand aviation infrastructure, the use of aviation as an economic development driver will be severely constrained. ICAO has therefore been working with Member States on the funding and financing of development of quality aviation infrastructure, especially through the ICAO World Aviation Forum (IWAF), a platform that brings together States' policy makers, development partners, and investment and financial institutions.

2.2.2 ICAO also continued its work in developing and updating its policies in the area of airport and air navigation services economics, and financing and management, through the Airport Economics Panel (AEP) and the Air Navigation Services Economics Panel (ANSEP). The outcomes of the Sixth Joint Meeting (AEP-ANSEP/6, May 2017) included:

- *developing guidance on cost-benefit analysis, business case studies and economic impact analysis; updating of ICAO's policies and guidance on airport economics and management; monitoring developments and serving as information-sharing platform for use of unmanned aircraft systems; and developing guidance to address issues related to non-economically viable airports (airport networks). The next meeting of the panels is planned for March 2019.*

2.3 AIR TRANSPORT MEETINGS

2.3.1 **Air Cargo Development Forum:** As a follow-up to the first event held in 2014, the second Air Cargo Development Forum will be held in Zhengzhou, China from 5 to 7 September 2018 (<https://www.icao.int/meetings/IACD2018/Pages/default.aspx>). The forum will address emerging issues in the development of air cargo in various parts of the world and discuss ways of maximizing the benefits of air cargo to States and other stakeholders, as well as propose solutions on any identified regulatory and operational challenges to the growth and full liberalization of air cargo and e-commerce.

2.3.2 **ICAO World Aviation Forum (IWAF):** As an outcome of the annually held IWAFs, financial institutions were urged to alleviate constraints on financing development for the aviation sector, including investment in quality infrastructure, and to examine the feasibility of creating investment pools and a financial marketplace in which aviation related projects can be consolidated and promoted. This year's event, in its fourth edition, will be held in Fortaleza, Brazil from 17 to 19 September 2018 (<https://www.icao.int/Meetings/iwaf2018/Pages/default.aspx>). It is aimed at creating an enabling environment to discuss approaches to maximize aviation benefits and explore ways of mobilizing long-term financial resources for aviation development, especially for the development and modernization of quality aviation infrastructure. The Forum is also intended to mainstream the priorities of the aviation sector in global, regional and national agendas in support of the ICAO *No Country Left Behind* (NCLB) initiative and ultimately to contribute to the attainment of the United Nations (UN) Sustainable Development Goals (SDGs) and the Agenda 2030.

2.3.3 **Air Transport Meeting:** With the theme of promoting connectivity for sustainable air transport development, this event will be organized from 21 to 23 November 2018 in Georgetown, Guyana, hosted by the Civil Aviation Authority of Guyana (<https://www.icao.int/Meetings/AT-DEV2018/Pages/default.aspx>). The objective of this event is to proffer practical solutions to remove existing regulatory impediments to air transport liberalization and to finance the development of quality aviation infrastructure, following up previous commitments, including the *ICAO Statement on the Development of Air Transport in North America, Central America, the Caribbean and South America* adopted in October 2014 (<https://www.icao.int/sustainability/Documents/Declarations%20and%20Statements/Statement-DevelopmentAirTransport.pdf>), the Joint World Tourism Organization (UNWTO) and ICAO *Medellín Statement on Tourism and Air Transport for Development* adopted in September 2015 (https://www.icao.int/sustainability/Documents/Declarations%20and%20Statements/UNWTO_ICAO_medellin_statement.pdf), as well as the conclusion adopted by the South American Civil Aviation Directors for the sustainability of air transport growth (SAM Plan, Asunción, Paraguay, 4 to 6 December 2017).

2.3.4 The Air Transport Meeting will also build on the outcome of the Special Event on Promoting Air Links between African States and the Diaspora (Accra, Ghana, 30 March 2017) toward promoting tourism and air links between African States and the Diaspora, especially in the Caribbean States.

2.3.5 **ICAN event.** The Tenth ICAO Air Services Negotiation Event (ICAN2017) was held in Colombo, Sri Lanka, from 4 to 8 December 2017. The event was attended by delegates from 66 States/territories; 450 formal and informal bilateral meetings were conducted, which led to the signing or initialling of some 420 agreements and arrangements. By the end of 2017, a total of 142 States (representing 74 per cent of ICAO membership) have utilized this facility at least once. This year, ICAN2018 will take place in Nairobi, Kenya, from 10 to 14 December 2018, and will be hosted by the Kenyan Civil Aviation Authority (<https://www.icao.int/Meetings/ICAN2018/Pages/default.aspx>).

2.4 AVIATION DATA AND ANALYSIS

2.4.1 The ICAO Statistics Programme has been modernized as part of the Enterprise Data Management (EDM) initiative, which aims to harmonize different sources of data at the organizational level, using standard reference tables and taxonomies by creating a holistic repository of cross functional data.

2.4.2 At the same time, ICAO has established a joint venture, at the specific project level, in partnership with UN agencies, international organizations and academia. For example, several joint projects with the Universal Postal Union (UPU), the UN Conference on Trade and Development (UNCTAD) and the International Transport Forum (ITF) at the Organization for Economic Co-operation and Development (OECD) were initiated to evaluate linkages of e-commerce, liner shipping and air cargo, and to identify regulatory and other constraints that contribute to the low share of air cargo in the rapidly growing e-commerce market.

2.4.3 **Big data.** In recent years, data sets are becoming increasingly large and complex, making them unmanageable for traditional data processing applications. For example, aircraft movements data captured in real time using Automatic Dependent Surveillance – Broadcast (ADS-B) System or global traffic flows data coming from Market Intelligence Data Transfer (MIDT) cannot be processed under the existing applications. ICAO is a member of the UN Statistical Commission global working group, which is tasked to establish standards on the technical and policy aspects of big data.

2.4.4 **Business analysis tools.** Since mid-2014, various business analysis tools have been developed to analyze and visualize ICAO data thereby assisting in the decision-making process (<https://www4.icao.int/etools/>). The following are examples of the tools: air service agreement maps, aeronautical treaty maps, traffic and financial trends, air traffic mapping, airports and air navigation services tariffs evaluation. The latest available business tool measures the expected economic benefits of implementing safety-related Standards and Recommended Practices (SARPs). Progress has also been made in the use of modern analytical and forecasting tools to reduce time and improve the efficiencies of the analytical process.

2.4.5 **ICAO single set of long-term traffic forecasts.** The multi-disciplinary group, including States, international organizations and the Committee of Aviation Environmental Protection (CAEP) working groups, developed the new forecasting models and methodologies. The estimated results indicate that global passenger traffic will grow at +4.3 per cent annually to 2035. Twenty route groups outpace the global growth, including seven route groups involving NACC States. The fastest growing route group in NACC is North America – Pacific South East Asia, which is estimated to grow at around +4.4 per cent annually. Global freight traffic is expected to grow at +3.9 per cent annually over the same time period as passenger forecasts. The North America region is expected to grow at around +2.8 percent annually trailing the global estimate by +1.1 percentage point.

2.4.6 The Secretariat has also developed an advanced traffic forecast application which enables States to visualize detailed traffic forecasts under various scenarios, including forecasts by country of departure, forecasts at country-pair level or the number of movements by Flight Information Region (FIR). This application is made available, on request, to States along with appropriate training being provided.

2.4.7 Regarding the need for licenced personnel, ICAO projected globally that 620,000 pilots¹ and 123,000 air traffic controllers will be needed in 2036, representing a need for 492,000 new pilots and 94,000 new air traffic controllers to be trained.

2.4.8 **Aviation satellite account.** The Secretariat is currently preparing the draft methodological framework document on the Aviation Satellite Account (ASA) to measure the economic contribution of aviation such as, for example, the size of aviation-related direct gross domestic product (GDP) and jobs created. The first draft was discussed at ICAO's Aviation Data and Analysis Panel (ADAP) held in March 2017. As per the recommendation of the ADAP and under the guidance of the UN Statistics Division (UNSD), an expert advisory group (EAG) was established to refine the ASA methodology framework document and conduct activities leading to the endorsement of the document by the UN Statistics Commission (UNSC). The membership of EAG consists of aviation data and national accounts specialists nominated by Member States, observers from International Organizations, and satellite account experts of UNSD.

¹ Pilots needed to fly aircraft above 100 seats.

2.4.9 **Airport reporting form.** ICAO, with Airports Council International (ACI), is jointly collecting airport traffic data, starting from January 2016, by replacing the ICAO Air Transport Reporting Form I, and is developing an online analytical tool of airport charges contained in *Tariffs for Airports and Air Navigation Services* (Doc 7100).

2.4.10 **Collection of aviation personnel data by gender.** Under the *ICAO Gender Equality Programme*, endorsed during the 39th Session of the ICAO Assembly, a new ICAO Air Transport Reporting Form was introduced to collect aviation licensed personnel (pilots, maintenance personnel and air traffic controllers) data divided by gender and age. ICAO is collaborating with the International Labour Organization (ILO), the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women) for the collection of data using this new air transport reporting form.

2.4.11 **Global indicator for UN SDGs.** In order to measure the progress of the SDGs, the 47th Session of the UN Statistical Commission, held in March 2016, endorsed the initial global indicator framework submitted for approval by the UN General Assembly. ICAO is a custodial agency responsible for collecting traffic data and sharing the information with the UN system to support the agreed global indicator (passenger and freight volumes by mode of transport) of the SDG target 9.1 – *Develop quality, reliable, sustainable and resilient infrastructure with a focus on affordable and equitable access for all*. This global indicator helps States to take a data-driven approach and address infrastructure gaps through appropriate policy and financing interventions. The comprehensive data on this indicator can be downloadable from: <https://unstats-undesa.opendata.arcgis.com/datasets?t=SDG%209>.

2.5 AIR TRANSPORT FUND

2.5.1 The Air Transport Fund, established in 2014 by ICAO (State letter 2014/32 refers), serves as a mechanism for the collection and use of voluntary contributions from States and other donors to support ICAO's activities in the air transport field: <http://www.icao.int/sustainability/Pages/TRAF.aspx>

2.5.2 The outstanding projects to be possibly undertaken by ICAO under the voluntary contributions of the Air Transport Fund include the "Air Transport Eliminating Poverty: ICAO's Essential Services and Connectivity Improvement (ESCI) Scheme", "iPLAN: Planning for Travel Disruptions", "Business Aviation: A Productive Booster", "Air Freight Indices", and "Targeting Cargo Theft and Delay".

2.6 CASE STUDY: DOMINICAN REPUBLIC

2.6.1 As part of ICAO's continuing efforts to assist SIDs for aviation development, ICAO is working closely with stakeholders in the Dominican Republic to develop a new air transport case study to quantify the economic and social benefits of aviation connectivity in the Dominican Republic. The case study will focus on the positive socio-economic impacts of air transport for Dominican Republic, using data and analysis from the past two decades. It will also seek to demonstrate more generally the benefits seen by national economies when States choose to make aviation a priority sector in their national development planning and policies.

2.6.2 It is anticipated that the eventual results of the study will help attract further investments and financing for the air transport sector development given the forecasted growth in air traffic now projected in the tourism-intensive State. The results will also serve as a template for other SIDs to consider and act upon in order to optimize their own air transport benefits.

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2.6.3 A workshop was held in April 2018 in Santo Domingo, to kick-off the work and to forge the parameters of the case study. Further face-to-face meetings are planned to be held before the finalization of the study by the 40th Session of the Assembly. The opportunity to convene a workshop would be extended to other interested States.

— END —