International Civil Aviation Organization

ELEVENTH SESSION OF THE STATISTICS DIVISION
(STA/11)

Montréal, Canada, 4 to 8 April 2022

REPORT

REPORT OF THE
ELEVENTH SESSION OF THE STATISTICS DIVISION

LETTER OF TRANSMITTAL

To: Chairperson, Air Transport Committee

From: Chairperson, Eleventh Session of the Statistics Division

I have the honour to submit herewith the Report of the Eleventh Session of the Statistics Division (STA/11) which was held virtually from 4 to 8 April 2022.

4/19/2022

X Roger Schaufele
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Roger Schaufele
Chairperson of the STA/11
Signed by: ROGER D SCHAUFELE JR

Montréal, 19 April 2022

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**ELEVENTH SESSION OF THE STATISTICS DIVISION
(STA/11)**

Montréal, Canada, 4 to 8 April 2022

HISTORY OF THE MEETING

1. **DURATION**

1.1   The Eleventh Session of the Statistics Division (STA/11) was opened by Mr. Juan Carlos Salazar, the Secretary General of ICAO, who delivered an opening remarks to all participants, followed by an address by Mr. Djibril Ahmed Coulibaly, the Chairperson of Air Transport Committee (ATC), at 0830 hours Eastern Daylight Time (EDT) on 4 April 2022 in a virtual setting. The meeting ended on 8 April 2022.

2. **ATTENDANCE**

2.1   The meeting was attended by 185 members and observers nominated by 72 Member States and 9 international organizations, as well as by advisers and others. A list of participants is in Appendix B.

3. **OFFICERS AND SECRETARIAT**

3.1   The Division elected Mr. Roger Schaufele, Jr, nominated participant from the United States, to serve as the Chairperson. Ms. Althea Roper (Jamaica) as the Vice-Chairperson of the meeting.

3.2   Mr. Sainarayan A, Chief, Aviation Data and Analysis (ADA) Section, Air Transport Bureau was the Secretary of the meeting. Officers from the ADA section: Mr. Antonin Combes, Ms. Jessica Diaz de Leon Gomez, and Mr. Behzad Taghipour, and Ms. Xin Xu, Programme Assistant, all provided support and assistance to the meeting. Ms. Sijia Chen of the Economic Development Branch also provided support to the meeting.

4. **AGENDA OF THE MEETING**

4.1   The agenda for the meeting shown hereunder was approved by the Council on 27 October 2021. And presented by the Secretary in WP/1 *Administrative Arrangements*.

Agenda Item 1:   ICAO Air Transport Reporting Forms

Agenda item 2:   Big data analytics

Agenda Item 3:   Long-term air traffic forecasts

Agenda Item 4:   Aviation Satellite Account (ASA) methodological framework

Agenda Item 5:   Report of the on-going analytical projects

Agenda Item 6:   Any other business

5.   **OPENING REMARKS**

5.1   **The Secretary General of ICAO, Mr. Juan Carlos Salazar**

Good day everyone,

It's my great pleasure to welcome you to this Eleventh Session of the ICAO Statistics Division; the first such gathering since 2009.

The air transport sector has evolved tremendously during these last 12 years, with advances in information technology driving nothing short of a revolution in data-driven policy and decision making.

This speaks to the importance of your virtual work together here over the next four days, and to how it will help us assure that civil aviation progress continues to benefit from reliable and rapidly-accessible data and information.

Something we must acknowledge from the onset is that your task here will not be a simple one.

Statisticians are now faced with an unprecedented capability to collect and analyze increasingly large amounts of big data, and a first key priority before you is to resolve how related technologies can serve States and aviation stakeholders in realizing more targeted and scalable policies and strategies.

Innovation and adaptability will be key considerations here, especially with respect to the latest advances in Machine and Deep Learning and the wave of Artificial Intelligence solutions now occurring.

Blockchain, too, provides a highly secured environment, and an outstanding option for numerous Big Data applications.

Aviation needs to join the finance, retail, and other sectors in leveraging these capabilities for maximum benefit.

Beyond this, and among many other related developments, we need to recognize and adjust to how cloud-based applications can provide the scalable solutions demanded today for managing the huge volumes of data being generated by the Internet of Things (IoT).

As we survey the world of civil aviation today, I think we should be tremendously encouraged by recent increases in air travel demand.

These are largely being driven by the alleviation of travel and border restrictions in many parts of the world, and are returning some much needed optimism to many air transport and tourism markets.

This recovery also reminds us, however, that we will need timely and reliable data, analyses, and forecasts, both to support authorities in their recovery strategies and to strengthen our resilience against future crises.

Meeting these challenges of aviation's recovery is your second key priority going forward, and in fact, "Resilience", along with "Innovation", are the leading themes of the upcoming 41st Session of the Assembly to be held in September in Montreal.

I invite you to take full advantage of this 11th Session of the Statistics Division to deliver clear and forward-looking recommendations to the Assembly.

The aim here should be to elevate the performance of the ICAO Aviation Data and Statistics Programme, but also to anticipate the emerging data landscape and assure we have everything in place to manage this coming decade of incredible change.

You will accordingly be invited to consider the recommendations of the last meeting of the Aviation Data and Analysis Panel (ADAP/3), including with respect to long-term traffic forecasts, methodologies to measure the economic impact of civil aviation, on-going analytical projects, and the development of an aviation competitiveness index.

Many of these and other items on your agenda are cross-cutting in nature, and it's essential they be considered in that light.

In concluding today, I would like to recall that previous meetings have emphasized ICAO's position as the leading international forum for aviation statistical issues.

We are also the custodian UN agency of the SDG indicator number 9.1.2 on passengers and freight volumes, by mode of transport.

As I now leave you with your ambitious agenda, and in the capable hands of Mr. Sainarayan, your Meeting Secretary, I wish you very productive and engaging deliberations.

Thank you.

5.2   **Chairperson of the Air Transport Committee, Mr. Djibril Ahmed Coulibaly**

Good morning, good afternoon, Ladies and Gentlemen,

On behalf of the Air Transport Committee of the ICAO Council, I would like to extend you all a warm welcome to this Eleventh Session of the Statistics Division.

As the ICAO Secretary General, Mr. Salazar, mentioned in his speech, informed decision-making is the foundation for policymakers to achieve targeted, flexible and scalable strategies. States, industries and all stakeholders count on reliable aviation data and analysis to guide their day-to-day operations as well as to support the determination of strategic directions.

The importance of a data-driven approach has been furthered heightened during the COVID-19 pandemic. We have heard the alarming figures, which have been wreaking havoc on aviation since 2020. The capability of monitoring the evolving impact of the crisis and basing decisions on these analyses has proven crucial throughout the past two years to compensate, to the extent possible, for the uncertainty and the unprecedented fallouts of the aviation industry.

During these times, ICAO has been working with States, other UN agencies, development banks, the industry and other partners, to deliver data and analysis that supports decision-making.

The United Nations recognizes ICAO as the central agency responsible for the collection, analysis, publication, standardization, improvement and dissemination of statistics pertaining to civil aviation. In this regard, I must congratulate ICAO for its contribution to the Committee for the Coordination of Statistical Activities (CCSA) of the United Nations to promote data-driven policymaking during and after the crisis.

It is well recognized that the air transport industry is a driver of economies, world trade and tourism worldwide. Aviation creates jobs and contributes to the social well-being of people around the world. It is also an essential enabler for access to foreign supplies and markets, for cultural and social exchange and, among others, for enhanced emergency and humanitarian response capabilities. In order to be able to quantify these benefits and far-reaching impacts of aviation, we rely on data.

Therefore, ICAO's leadership in the economic development of air transport, such as the promotion of adequate funding for aviation in national planning strategies or removing regulatory impediments to market access, can only be achieved with precise and accurate aviation data. Similarly, other areas of civil aviation, such as updates of the Global Aviation Safety Plan (GASP) and the Global Air Navigation Plan (GANP), will rely on comprehensive data, forecasts, and analyzing tools provided by ICAO.

Needless to say, the expectations of ICAO Member States and the world aviation community on the work of the Division are high. You have for your consideration the recommendations of the Third Meeting of the Aviation Data Analysis Panel pertaining to the ICAO Air Transport Reporting Forms, the Long-term air traffic forecasts and the Aviation Satellite Account (ASA) methodological framework.

In addition, under Agenda Item 2, the Division is requested to provide guidance on the integration of big data and computing technologies into the aviation data and analysis work programme. Innovation – technological as well as societal and procedural - will be key to keeping up with and adapting to new realities and to better meet the requirements of aviation regulators and other stakeholders.

Finally, Agenda Item 5 will review the progress of on-going analytical projects with other UN agencies and international organizations, including the progress of the Aviation Competitiveness Index Working Group (ACWG).

In short, ladies and gentlemen, the challenge that lies before you this week is to adapt the ICAO Aviation Data and Statistics Programme to an ever evolving and demanding reality. As recovery takes hold, pressure will mount for ensuring the safety, security and sustainability of air transport operations worldwide. A strong and robust Aviation Data and Statistics Programme will be the cornerstone to making the right decisions at the right time.

Before I give the floor to your Chairman. I wish you success in your deliberations and I look forward to the outcomes of this Meeting. Mr Chairman, the Meeting is yours.

Thank you.

6.   **CLOSING REMARKS**

6.1   Mr. Mohamed Rahma, Director, Air Transport Bureau delivered the closing remarks at 09450 hours Eastern Daylight Time (EDT) on 8 April 2022.

6.2   Director of Air Transport Bureau, Mr. Mohamed Rahma

Mr. Chairman, Mr. Secretary, Representatives from States and Observers,

I wish to begin by thanking you all for your participation in this 11th Meeting of the Statistics Division. Twelve years have gone by since the last time the Division met, and this year's meeting was timelier than ever – in light of the evolution in the data landscape, but also in light of the current state of the aviation industry.

As air traffic demand warms up and restrictions progressively lift in certain parts of the world, the air transport sector will more than ever rely on data-driven policy- and decision-making.

In fact, direct access to reliable, accurate and comprehensive data will be the key component for authorities worldwide to design flexible, scalable and forward-looking national and regional aviation strategies to recover from this pandemic and to build resilience in the long term.

In recognition of this, ICAO is pleased by the Division's agreement to support more frequent updates of long-term air traffic forecasts through the integration of official reported data and big data. I would personally encourage Member States to access the continuously updated traffic forecasts through the iCADS platform to meet their post pandemic planning and implementation needs.

At the core of this Division is the mission to gain consensus and guide the development of aviation data and analysis to meet the evolving needs of Member States. This is being constantly pursued and achieved by ICAO through the collection of new and/or additional aviation data contained in the ICAO Air Transport Report Forms.

Similarly, ICAO will continue its cooperation with the CAEP to further improve the collection of fuel consumption under Form M as well as its work with IATA to analyse the impact of the changes of the statistics definition of non-scheduled all cargo traffic.

During this past week, you have been faced with a very challenging question – how to leverage big data applications to develop and implement more targeted and scalable policies and strategies.

Latest advances in Machine and Deep Learning and the adoption of Artificial Intelligence solutions have precipitated our capabilities to collect and analyse exponentially growing amounts of data. I was delighted to follow the discussions and the presentation of the ICAO big data dashboards, which will considerably contribute to States' decision- and policy-making.

In this regard, I would like to re-iterate that Member States have a free access to these dashboards and are encouraged to utilize them as often and as much as possible.

ICAO will continue to collaborate with Member States, the United Nations, international organizations and other stakeholders, on big data analytics and related projects.

Your decision related to treatment of manufacturing in the work of ICAO on aviation satellite account will provide a path forward for the Secretariat to deliver a methodological framework that will significantly benefit Member States.

Finally, you considered the recommendation of the last Aviation Data and Analysis Panel (ADAP/3) related to the development of an aviation competitiveness index. As the scope of the work of the Aviation Competitiveness Working Group (ACWG) advances, it will be guided by the Division's encouragement to continue and its recommendation to consider in its future work the Contestable Market Approach to the Aviation Competitiveness Index.

Dear aviation colleagues, throughout this week you have worked towards elevating the performance of the ICAO Aviation Data and Statistics Programme, but also to anticipate the emerging data landscape and assure we have everything in place to manage this coming decade of incredible change.

You have delivered clear and forward-looking recommendations to the 41st Session of the ICAO Assembly, which will take place in September. The theme of this Assembly will be "Resilience" and "Innovation". These two capabilities have also been the cornerstone of this Division meeting, be it through your dedication and commitment in these uneasy times or through the results we seek to achieve through the constant improvement of the ICAO Aviation Data and Statistics Programme.

I would also like to express my sincere appreciation to the Chairman, Mr. Roger Schaufele, for the efficient manner in which he has conducted this meeting. I also wish to thank you, the participants, for your commitment and concise contributions. This greatly assisted in speeding up the proceedings of this meeting. I believe we also all owe much thanks to the members of the Aviation Data Analysis Panel who did the ground work for this meeting.

I would like to thank as well all the members of the Secretariat from the various Bureaus especially the technicians, interpreters and other colleagues who, during the last week, have literally worked day and night to ensure the success of this meeting, and in particular, the STA Division Secretary, Mr. Sainarayan and his team of dedicated experts.

Thank you.

7.   **WORKING ARRANGEMENTS**

7.1   The Division met as a single body, with ad hoc drafting groups as required. Discussions in the main meeting were conducted in Arabic, Chinese, English, French, Russian and Spanish. Some working papers were presented in English only. The report was issued in Arabic, Chinese, English, French, Russian and Spanish. A list of the documentation prepared for the meeting appears in Appendix A.

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Agenda Item 1: ICAO Air Transport Reporting Forms

WP/2 Air Transport Reporting Forms

WP/9 Statistical Definition of Non-Scheduled All-Cargo Traffic

1.1 **DOCUMENTATION**

1.1.1 In WP/2, the Secretariat presented the recommendations of the Third Meeting of the Aviation Data and Analysis Panel (ADAP/3) on the collection of new and/or additional aviation data ICAO Air Transport Report Forms and surveys. The recommendations were related to the collection of fuel consumption data through Form M; the collection of data on cybersecurity incidents; the survey on the licensed aviation personnel by gender; and the statistical definition of non-scheduled all-cargo traffic.

1.1.2 In WP/9, IATA presented the current definitions on non-scheduled flights in relevant ICAO manuals and their application by States on reporting traffic statistics. IATA outlined the differences in the reporting, particularly for non-scheduled all-cargo traffic, due to the lack of understanding or different interpretation of the definitions.

1.2 **DISCUSSION**

1.2.1 With regard to the survey on licensed aviation personnel by gender, a suggestion was made to include a third gender category (marked as "X") in addition to male and female genders. The Secretariat explained that since the survey presented in the Appendix of WP/2 was developed in consultation with the United Nations (UN) and the International Labour Organization (ILO), the proposed inclusion of additional gender "X" in the future surveys will be coordinated with the UN and relevant international organizations.

1.2.2 Concerning the improvement to the collection of fuel consumption under Form M, support was provided to the coordination between the Secretariat and the Committee on Aviation Environment Protection (CAEP) on this aspect.

1.2.3 In introducing WP/9, the Observer from IATA delivered a presentation on the differences of the statistical and regulatory definitions of non-scheduled all-cargo, and how it could lead to inconsistencies and distortion, as the same operation may be classified in different categories by different States. It thus proposed to change the definition of non-scheduled all-cargo by limiting it to chartered operations.

1.2.4 Several concerns were raised on this proposal, particularly on the potential complications and difficulties on reporting. For example, it was noted that changes in definition may result in a situation where passengers will be considered as scheduled while cargo will be considered as non-scheduled on the same flight, leading to operational issues. It was also noted that the proposal may lead to the possibility of discrepancy in the reporting of cargo traffic between airport operators and air carriers due to the different approach in the characterization of non-scheduled cargo traffic. Further concerns were raised on the difficulties to segregate scheduled from non-scheduled cargo flights and the need for such segregation for statistical purposes. In addition, while it can be easier to characterize non-scheduled flights for passenger operations as reservation systems are accessible, in the case of cargo, its marketing and consolidation is difficult to trace.

1.2.5 In response to the questions and concerns, IATA explained that its proposed statistical definition of non-scheduled cargo applies only to all-cargo services, and the distinction between the

reporting of scheduled and non-scheduled operations was mainly for regulatory purposes and due to ease of collecting and reporting scheduled traffic data in accordance with a published time tables.

1.2.6   A clarification was sought on whether the delivery of packages by drones be considered as an air cargo flight. The Secretariat explained that such operations are not presently considered in the statistical definition of air cargo flights.

1.2.7   In light of the above concerns, the Secretariat stressed that any change to the statistical definition of the non-scheduled cargo traffic would take into account the potential impacts, including those on reporting, and the feasibility of implementing such change.

1.3   **CONCLUSION**

1.3.1   The Division welcomed the work of the Secretariat on the collection of new and/or additional aviation data through ICAO Air Transport Report Forms and surveys pursuant to the recommendations adopted by ADAP/3.

1.3.2   Noting the comments received on the survey of licensed aviation personnel by gender, the Division agreed that the Secretariat should coordinate with the UN and relevant organizations on the proposed inclusion of a gender "X" in the future surveys.

1.3.3   The Division agreed that coordination between the Secretariat and the CAEP should continue to further improve the collection of fuel consumption under Form M.

1.3.4   The Division supported the continuation of work by ICAO and IATA to analyze the impact of the changes of the statistics definition of non-scheduled all cargo traffic

RECOMMENDATION

          The Division adopted the following Recommendations

          RECOMMENDATIONS STA/11.1

          The Division Recommends that:

     a)   the Secretariat should coordinate with the UN and relevant international organizations on the proposed inclusion of a gender "X" in the future surveys of licensed aviation personnel;

     b)   the Secretariat should coordinate with CAEP to improve the collection of fuel consumption data under Form M; and

     c)   the Secretariat should continue its work with IATA to analyze the impact of the change of the statistics definition of non-scheduled all cargo traffic and report the results of the analysis to ADAP.

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Agenda Item   2:   Big data analytics

WP/3   Big Data Analytics

2.1   **DOCUMENTATION**

2.1.1   In WP/3, the Secretariat reported on the on-going big data activities at ICAO, including the collaboration with the United Nations (UN) and international organizations, as well as the provision of dashboards to Member States and aviation stakeholders to support their current and post COVID-19 pandemic planning and implementation efforts. It also reported on activities in accordance with the recommendations of the Third Meeting of the Aviation Data and Analysis Panel (ADAP/3).

2.2   **DISCUSSION**

2.2.1   The Secretariat provided an overview and details of the items covered under WP/3, i.e. sources of big data, provision of big data and dashboards to Member States and aviation stakeholders and the on-going collaboration with the UN and other international organizations on big data analytics.

2.2.2   A question was raised on the collaboration between ICAO and the Organisation on Economic Co-operation and Development (OECD) in the area of System of Economic Environment Accounting (SEEA). The Secretariat explained that the SEEA is a statistical framework adopted by the UN Statistical Commission as the international standard for environmental-economic accounting. It puts statistics on the environment and its relationship to the economy at the core of official statistics, and thus provides better understanding of the interaction between the economy and the environment.

2.2.3   It was further noted that the details on the collaboration between ICAO and the OECD on the SEEA was presented to ADAP/3 in June 2021 (recommendation ADAP/3.10 refers).. The OECD also delivered a presentation on how it is using the ICAO ADS-B big data in its work under the UN SEEA.

2.2.4   With regard to the use of big data for analyzing passenger flow during public health emergencies, a question was raised on the level of details of information of air travellers contained in the connectivity data provided by ICAO to the World Health Organization. It was clarified that the data was provided at a high level primarily on origin, destination and the transiting point, without the possibility of identifying individual passenger involved in their itinerary.

2.2.5   To provide a better understanding on the work of ICAO on processing and analyzing big data, the Secretariat delivered a presentation on the big data architecture and process flow using Automatic Dependent Surveillance-Broadcast (ADS-B) and Market Intelligence Data Transfer (MIDT) data. The presentation provided detailed information on the system architecture and cloud-based technologies used by ICAO to store, process, analyze and visualize big data.

2.2.6   In its effort to facilitate the use big data by Member States, the Secretariat has developed a series of interactive dashboards to visualize the big data along with a draft guidance document for the use of big data. To provide a better understanding of how ICAO leverages big data, the Secretariat delivered a detailed demonstration of these dashboards. The Division expressed a broad support and its appreciation to this work and in the granting of licences to Member States for accessing the dashboards.

2.2.7   The UN Statistics Division (UNSD) delivered a presentation on the use of big data titled "Automatic Identification System (AIS) for Official Statistics and Experimental Indicators". It illustrated the usage and coverage of AIS data and gave an overview of the big data curriculum under the UN Global Platform which provide States and stakeholders with a platform for accessing learning techniques for exploring, analyzing and leveraging big data.

2.2.8   The Secretariat also provided information about the provision of data to the UN as ICAO is the custodian agency for Sustainable Development Goals (SDGs) indicator 9.1.2 Passenger and freight volumes, by mode of transport. The Secretariat showed how to access the online UN platform[1] for monitoring the progress towards the SDGs and the metadata.

2.3   **CONCLUSION**

2.3.1   The Division suggested Member States to access the ICAO big data dashboards and draft guidance document for their data driven decision making, planning and implementation needs.

2.3.2   The Division agreed to support and facilitate the on-going collaboration on big data analytics with Member States, UN, international organizations and other stakeholders.

2.4   **RECOMMENDATION**

The Division adopted the following Recommendations:

RECOMMENDATIONS STA/11.2

The Division Recommends that:

a)   Member States should access the big data dashboards and draft guidance document for their data driven decision making, planning and implementation needs; and

b)   ICAO should continue its collaboration on big data analytics with Member States, UN, international organizations and other stakeholders.

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[1] https://unstats.un.org/sdgs/dataportal/database

Agenda Item   3:   Long-term air traffic forecasts

WP/4   ICAO Long-term Traffic Forecasts and Post-Covid-19 Scenarios

3.1   **DOCUMMENTATION**

3.1.1   In WP/4, the Secretariat reported on activities in the area of air traffic forecasts and planning in accordance with Assembly Resolution A40-9, which requested the Council to update the single set of long-term traffic forecasts (LTF) from which customized and/or more detailed forecasts can be produced. The LTF has been updated with 2018 baseline and the post-COVID-19 forecast scenarios were developed through the Multi-Disciplinary Working Group on Long-term Traffic Forecasts (MDWG-LTF). The Secretariat presented the need for and the methodology to increase the update frequency of the forecasts by integrating data reported under the ICAO Statistics Programme with big data sources such as the Automatic Dependent Surveillance — Broadcast (ADS-B) and Market Intelligence Data Transfer (MIDT).

3.2   **DISCUSSION**

3.2.1   The Secretariat provided an overview of the updated LTF using 2018 baseline and the development of the COVID-19 recovery scenarios leading to the post-COVID-19 LTF as presented in the appendices of WP/4. Aiming at providing more frequent updates for States to better align capacity with expected demand, the Secretariat explained the planned use of big data sources to reduce the gap of the base year in generating future forecasts.

3.2.2   With regard to the upcoming update of LTF in 2022, a question was raised on the end year of such forecasts. It was clarified that the time horizon of the forecasts will be kept to a shorter period not exceeding ten years primarily to facilitate the post-pandemic planning and implementation needs of States. The Secretariat further indicated that the work on updating the forecasts will be conducted through the MDWG-LTF.

3.3   **CONCLUSION**

3.3.1   The Division supported more frequent updates of LTF through the integration of official reported data and big data to enable the timeline of such update with a shorter duration to facilitate planning and implementation needs of States.

3.4   **RECOMMENDATION**

            The Division adopted the following Recommendations:

RECOMMENDATIONS STA/11.3

The Division Recommends that:

a)   the Secretariat conduct more frequent updates of LTF to reduce the lag between baseline and current year through the integration of official reported data and big data sources; and

b)   Member States access the continuously updated LTF through the iCADS platform for their post pandemic planning and implementation needs.

Agenda Item 4: Aviation Satellite Account (ASA) methodological framework

      WP/5   Aviation Satellite Account

4.1 DOCUMMENTATION

4.1.1   In WP/5, the Secretariat presents the development of the methodological framework of the Aviation Satellite Account (ASA) for measuring the economic contribution of aviation to national economy. A summary of the draft ASA methodological framework document along with the recommendations of the 40th Session of the ICAO Assembly is included. The paper also presents the validation of the methodology using available data on aviation's economic impact and national accounts of States, with special focus on the assessment of the inclusion of aircraft manufacturing in the scope of civil aviation measurement.

4.2 DISCUSSON

4.2.1   To set the context for discussion, the national account expert from the United Nations Statistical Division (UNSD) made a presentation on the background of Aviation Satellite Account, including the measurement of economic performance by sectors through the System of National Account (SNA) adopted by the UN, the linkage between Satellite Account and SNA, the concept and scope of Aviation Satellite Account, and how it can measure the economic contribution of aviation to national economy.

4.2.2   When introducing WP/5, the Secretariat explained the process of the development of the ASA methodological framework in accordance with the recommendation of the ICAO Assembly Resolutions, and the work of the Expert Advisory Group (EAG-ASA) established by the Aviation Data Analysis Panel (ADAP). It highlighted that the one remaining issue preventing the finalization of the methodological framework is whether to include the aircraft manufacturing in the scope of measurement of civil aviation industry's contribution to national economy. It further explained that its reconciliation exercise has revealed several challenges to measure precisely the economic contribution of aircraft manufacturing, for example, the constraint of data availability and the difficulty in separating the defence component from the civilian production. In this regard, the Secretariat stressed the need for the Division to make a decision so that further work can be carried out to finalize the ASA methodological framework.

4.2.3   Divergent views were expressed on the inclusion of aircraft manufacturing as civil aviation industry. Some were of the view that aircraft manufacturing is a critical component of aviation industry, and thus presenting it as capital formation instead of including it in the scope of aviation will result in the loss of the information on value added and jobs generated by aircraft manufacturing. On the other hand, some were of the opinion that the civil aviation activities, which are services oriented, are different from those of aircraft manufacturing, which have a different nature and include the production for defence.

4.2.4   Further debate was made on whether the scope of ASA should focus on aviation transportation services or broader aviation. While some felt that focusing on transportation only may be narrow, other views were expressed that the primary focus of civil aviation is to provide aviation transportation and service, and many other industries such as fuel supply companies also contribute to aviation, and thus the measurement of civil aviation contribution to the economy cannot encompass all these industries. There were also concerns that the inclusion of aircraft manufacturing may result in larger economic contribution of aviation than all modes of transportation as a whole.

4.2.5   Considering the divergent views expressed and different use of the ASA by States, the Secretariat proposed a solution to create a chapter dedicated to aircraft manufacturing in the ASA methodological framework document. Through this way, the main framework for measuring of civil aviation focusing on services can be maintained while States will have the flexibility to capture the economic contribution of aircraft manufacturing depending on their needs. A question was raised on the feasibility to develop an additional chapter and finalize the document for the adoption by the 41st Session of the ICAO Assembly. It was clarified that if the Division decides to take this path forward as proposed by the Secretariat, more work will need to be undertaken by the EAG-ASA to address this new development and the revised draft will need to be approved by the Council. Due to the tight deadline for submitting working paper for A41, the final draft will not be able to be presented for the adoption by this Assembly.

4.2.6   Questions were asked on the accessibility of the draft ASA methodological framework and the future guidance to States in applying the framework. The Secretariat confirmed that the draft methodological framework document is available through the link provided in WP/5, and plans will be made on providing support and guidance to States to develop their own ASA using the agreed ICAO methodological framework

4.3   **CONCLUSION**

4.3.1   Acknowledging the divergent views on the inclusion of aircraft manufacturing in the scope of measurement of civil aviation as well as the different use of the ASA by States, the Division agreed that the ASA methodological framework should provide flexibility for States to capture the economic contribution of aircraft manufacturing depending on their needs.

4.3.2   The Division agreed that the main ASA framework focusing on services should be maintained and an additional chapter be developed in the methodological framework document to capture the economic contribution of aircraft manufacturing.

4.3.3   The Division agreed that the EAG-ASA should undertake the above task and continue its work to finalize the ASA methodological framework document.

4.4   **RECOMMENDATION**

        The Division adopted the following Recommendations:

        RECOMMENDATIONS STA/11.4

        The Division Recommends that:

        a) the current scope of civil aviation in the draft ASA methodological framework should be maintained without the inclusion of aircraft manufacturing;

        b) an additional chapter in the ASA methodological framework document should be developed to capture the economic contribution of aircraft manufacturing ; and

        c) the EAG-ASA should undertake the task listed in b) and continue its work to finalize the ASA methodological framework document.

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Agenda Item   5:   Report of the on-going analytical projects

> WP/6   Application of a Contestable Market Approach to the Aviation
>   Competitiveness Index
>
> WP/7   Aviation Competitiveness Working Group (ACWG)

5.1   DOCUMMENTATION

5.1.1   In WP/7, the Secretariat reported on the work of the Aviation Competitiveness Working Group (ACWG) established by the Third Meeting of the Aviation Data and Analysis Panel (ADAP/3) in June 2021. The ACWG is tasked with the development of methodologies and data sources to arrive at a Global Aviation Competitiveness Index, which will be used to measure the ability of a State to create and maintain value from its civil aviation sector. The Secretariat explained the scope of the work of the ACWG and the progress of the development of definitions of aviation competitiveness and the methodologies for the measurement of competitiveness.

5.1.2   In WP/6, Brazil proposed the application of a Contestable Market Approach to the Global Aviation Competitiveness Index, taking into consideration the incorporation of the Services Trade Restrictiveness Index of the Organisation for Economic Cooperation and Development (OECD/STRI) for air transport services. Brazil described the main pillars for market contestability and the drivers for Total Factor Productivity growth, which is crucial for the Global Competitiveness Index (GCI), described in the World Economic Forum (WEF)'s Global Competitiveness Report (2019).

5.2   DISCUSSION

5.2.1   The Secretariat provided an overview of the work conducted by the ACWG and the agreed term of reference (TOR) of the group and the definition of competitiveness in aviation.

5.2.2   With regard to the concept of "perfectly contestable market" presented in WP/6, a question was raised on whether the inherent differences between commercial firms providing air transport services will pose a challenge in applying the contestable market approach proposed in the paper. A second question was raised on the possibility to monitor fair and unfair competitions in the air transport sector, and particularly in the case of airlines operating below costs. While acknowledging these questions, it was clarified that the proposal and feasibility of applying the approach presented in the paper will have to be discussed, measured and evaluated by the ACWG.

5.2.3   The Universal Postal Union (UPU) delivered a presentation on the joint research project with ICAO on analyzing international logistics constraints for e-commerce, under the Memorandum of Understanding between the Organizations. It was noted that the big data sources of both ICAO and UPU are planned to be used for this project. The Division welcomed this joint project and encouraged the ongoing collaboration between the two organizations.

5.3   CONCLUSION

5.3.1   The Division took note of the scope and progress of the work on the development of the Global Aviation Competitiveness Index, including the agreed definition on the aviation competitiveness.

5.3.2   The Division agreed that the proposal on Contestable Market Approach to the Aviation Competitiveness Index will need to be presented to and considered by the ACWG.

5.4   **RECOMMENDATION**

The Division adopted the following Recommendations:

RECOMMENDATIONS STA/11.5

The Division Recommends that:

a) the ACWG advances its work in accordance with the agreed definition of aviation competitiveness and the tasks in its TOR; and

b) the ACWG should consider the feasibility of applying the Contestable Market Approach to the Aviation Competitiveness Index.

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APPENDIX A

LIST OF WORKING PAPERS

WP NO.	TITLE	PRESENTED BY
1	Administrative Arrangements	Secretary
2	Air Transport Reporting Forms	Secretary
3	Big Data Analytics	Secretary
4	ICAO Long-Term Traffic Forecasts and Post-COVID-19 Scenarios	Secretary
5	Aviation Satellite Account	Secretary
6	Application of a Contestable Market Approach to the Aviation Competitiveness Index	Brazil
7	Aviation Competitiveness Working Group (ACWG)	Secretary
8	(CANCELLED)	
9	Statistical Definition of Non-Scheduled All-Cargo Traffic	IATA

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APPENDIX B

(English only)

LIST OF PARTICIPANTS

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