



# ICAO

**Twenty-Second Meeting of the AFI Planning and Implementation Regional Group  
(APIRG/22)  
(Accra, Ghana, 29 July – 2 August 2019)**

**Agenda Item2:**

**OUTCOME OF THE THIRTEENTH AIR NAVIGATION CONFERENCE (AN-CONF/13)**

*(Presented by the Secretariat.)*

<b>SUMMARY</b>	
This working paper presents the outcome of the Thirteenth Air Navigation Conference (AN-Conf/13)	
Action by the Meeting to note the information presented; and b) take action as in para 2.4.	
<i>Strategic Objectives</i>	Safety and Air Navigation

## **1 INTRODUCTION**

1.1 The Thirteenth Air Navigation Conference (AN-Conf/13), held in Montréal from 9 to 19 October 2018, discussed eight agenda items under two Committees: Committee A (Air Navigation Capacity and Efficiency) discussed Agenda Items 1, 2, 3, 4 and 5 and Committee B (Safety) discussed Agenda Items 6, 7 and 8. The meeting was attended by a total of 1022 participants from 116 Contracting States and 37 International Organizations.

1.2 A total of fifty-two Recommendations were adopted by the Conference and are published in the Report of the Thirteenth Air Navigation Conference (AN-Conf/13) (Doc 10115)1.

1.3 The Council of ICAO approved all AN-Conf/13 Recommendations on 27 February 2019, Appendix A is the Supplement No. 12 to the AN-Conf/13 Report, which details suggested follow-up actions on each of the Recommendations, was published.

## **2. DISCUSSION**

2.1 The AN-Conf/13 set the foundation for the future of Aviation Safety, as well as Capacity and Efficiency covering traditional areas in addition to new and emerging ones (Doc 10115 refers). During the Conference a wide range of subjects were considered: Air Traffic Management (ATM); Communications, Navigation, and Surveillance (CNS); Aeronautical Meteorology; Information Management; Aerodromes, Human Factors; Civil-Military Collaboration; Implementation; Remotely Piloted Aircraft System (RPAS); Search and Rescue (SAR); Cyber Resiliency, New Operations Types; Global Aviation Safety Oversight System (GASOS); Safety Management; Universal Safety Oversight Audit Programme (USOAP)

**Attachment**

Continuous Monitoring Approach (CMA); and Regional Safety Oversight Organizations (RSOO).

2.2 The Conference agreed with strategies to guide the development and implementation of initiatives outlined in the Global Aviation Safety Plan (GASP) and the Global Air Navigation Plan (GANP), and several recommendations will be used to update the GANP and GASP. The updated GANP and GASP will also be presented to the Assembly for endorsement.

2.3 As an outcome of the AN-Conf/13 the aviation community agreed with Recommendations in the field of Safety and Air Navigation Capacity and Efficiency that have been reviewed by the Council and considered relevant for inclusion in the Organization Work Programme. The resources required to address these recommendations were identified and the Work Programme was reviewed in preparation of the budget discussions prior to the Assembly.

2.4 Following the approval by the Council of ICAO (paragraph 1.3 refers) of the AN- Conf/13 Recommendations, States are now urged to appropriately address the Recommendations directed to States (Supplement No. 1 to Doc 10115 refers).

### 3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information presented; and b) take action as in para 2.4.

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\* The Report of the Thirteenth Air Navigation Conference (AN-Conf/13) (Doc 10115) is available at : <https://portal.icao.int/icao-net/Pages/Doc10115.aspx>  
2 Supplement No. 1 to the Report of the Thirteenth Air Navigation Conference (AN-Conf/13) (Doc 10115) is available at : <https://portal.icao.int/icao-net/Pages/Doc10115.aspx>

**Attachment**

## Attachment

**INTERNATIONAL CIVIL AVIATION ORGANIZATION****THIRTEENTH AIR NAVIGATION CONFERENCE (2018) Montréal, Canada, 9 to 19  
October 2018  
SUPPLEMENT NO. 1**

1. The Council, at the xxx meeting of its 216th Session on xx February 2019, and the Air Navigation Commission at the second meeting of its 210th Session on 29 January 2019, under authority delegated by the Council, took action as indicated hereunder on the recommendations of the Thirteenth Air Navigation Conference (2018).

2. **RECOMMENDATIONS FOR SPECIFIC AMENDMENT OF  
STANDARDS AND RECOMMENDED PRACTICES**

2.1 The Conference made no recommendations for specific amendment to Annexes.

3. **RECOMMENDATIONS OTHER THAN FOR STANDARDS AND  
RECOMMENDED PRACTICES AND PROCEDURES**

3.1 The Council noted that the following will be the allocation of follow-up responsibility for other than specific amendment to Annexes recommendations made under Agenda Items 1 to 8:

RECOMMENDATIONS ADOPTED BY AN-CONF/13	SUGGESTED FOLLOW-UP ACTION	
	COUNCIL	AIR NAVIGATION COMMISSION (ANC)

**Agenda Item 1: Air navigation global strategy** — 1.1: Vision and overview of the sixth edition of the GANP; 1.2: Air navigation performance improvement and measurement through the aviation system block upgrades (ASBUs) and basic building blocks (BBBs) framework; 1.3: Air navigation roadmaps; and 1.4: Air navigation business cases

<p><b>Recommendation 1.1/1 — Vision and overview of the Sixth Edition of the Global Air Navigation Plan (Doc 9750, GANP)</b></p>		
<p>That States:</p> <p>a) agree that the future Global Air Navigation Plan (Doc 9750, GANP), based on the outcome of the Thirteenth Air Navigation Conference (AN Conf/13), be available as a web-based platform, including a concise executive summary (printable) which outlined its key policies, priorities and strategies to ensure that the GANP was easily accessible to all States and key decision makers;</p> <p>b) agree with the proposed multilayer structure for the Sixth Edition of the GANP;</p> <p>c) welcome the proposed vision, performance ambitions and conceptual roadmap for the Sixth Edition of the GANP, with the inclusion of the civil-military dimension;</p> <p>d) recognize the importance of a separate but aligned GANP and Global Aviation Safety Plan (Doc 10004, GASP);</p>	<p>a) to d): Approve, and request the Secretary General to take appropriate actions and bring to the attention of States.</p>	<p>a) to d): Note.</p>



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<p>j) continue to work with States, international organizations, air traffic management (ATM) modernization programmes and other stakeholders on the development of the Sixth Edition of the GANP, as required for subsequent endorsement at the 40th Session of the ICAO Assembly.</p> <p><b>Recommendation 1.2/1 — Global technical level of the Sixth Edition of the Global Air Navigation Plan (Doc 9750, GANP)</b></p> <p>That States:</p> <p>a) agree with the proposed change management process to maintain an up-to-date aviation system block upgrade (ASBU) framework with the formal involvement of the ASBU Panel Project Team (ASBU PPT) to improve transparency, consistency and stability;</p> <p>b) welcome the updated ASBU framework and consider the initial version of the basic building block (BBB) framework;</p> <p>That ICAO:</p> <p>c) map the global technical level of the <i>Global Air Navigation Plan</i> (Doc 9750, GANP) to the strategic level;</p> <p>d) make available the ASBU and proposed BBB frameworks in an interactive and simplified</p>	<p>a) and b): Approve and request the Secretary General to bring to the attention of States.</p> <p>c) to k): Note.</p>	<p>a) and b): Note.</p> <p>c) to k): Approve and include in the AN work programme, request the Secretary General to take the appropriate actions related to the continuation of the update of the ASBUs based on the proposed change management process and the development of the BBBs and continue the development of the</p>

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<p>format, as part of the web based GANP Portal, emphasizing the relationship between both frameworks, and between the frameworks and the regional air navigation plan (ANP) elements;</p> <p>e) enable the capability, within the GANP Portal, to upload relevant information related to the development and deployment of the ASBU and proposed BBB frameworks in order to allow States, regions and industry to share information;</p> <p>f) incorporate a flexible framework for emerging air navigation concepts, such as unmanned aircraft systems (UAS), UAS traffic management (UTM), Big Data and the aviation Internet, into future editions of the GANP;</p> <p>g) include a Global Aeronautical Distress and Safety System (GADSS) thread in the Sixth Edition of the GANP in line with ICAO provisions;</p> <p>h) consider designing a thread for a Global Aviation Internet Network in the GANP, in coordination with aviation and non-aviation-related industries;</p> <p>i) emphasize and enhance a human-centric approach to system design and processes for change management;</p> <p>j) support the conducting of trials for new air navigation concepts as outlined in the ASBU framework within the GANP; and</p> <p>k) continue to work with States, international organizations, air traffic management (ATM) modernization programmes and other</p>		

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<p>stakeholders on the development of the global technical level of the Sixth Edition of the GANP for subsequent endorsement at the 40th Session of the ICAO Assembly.</p> <p><b>Recommendation 1.3/1 – Air navigation roadmaps</b></p> <p>That States:</p> <p>a) provide ICAO with timely information on their modernization plans and the equipage plans of airspace users;</p> <p>That States and ICAO:</p> <p>b) work collaboratively to adopt a performance-based approach for developing performance requirements and acceptable means of compliance to support the implementation of the <i>Global Air Navigation Plan</i> (Doc 9750, GANP) while considering the need for global interoperability;</p> <p>That ICAO:</p> <p>c) provide air navigation roadmaps, linked to the aviation system block upgrade (ASBU) elements, within the GANP which support:</p> <p>1) new airspace users and emerging technologies;</p> <p>2) greater flexibility where possible in the choice of technologies, based on performance needs; and</p>	<p>a) and b): Approve and request the Secretary General to bring to the attention of States.</p> <p>c) to e) : Note.</p>	<p>a): Note.</p> <p>b): Note and request the Secretary General to take the appropriate actions related to the work on progressively adopting a performance-based approach in the development of future roadmaps for the GANP, and provide guidance to relevant expert groups to ensure that the development of ICAO provisions is aligned with this recommendation.</p> <p>c): Approve, include in the AN work programme and request the Secretary General to take appropriate actions related to the collection of information on modernization plans or programmes as inputs to update the GANP, and modify the roadmaps in the GANP to support the identified needs.</p>

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<p>3) earlier adoption of new technologies and operational capabilities as they emerge, linked to the performance needs;</p> <p>d) continue to explore practical means to make use of international standards, in particular through the Standards Roundtable work with recognized standards-making organizations, to expedite the efficient development of ICAO provisions; and</p> <p>e) expedite the work on the Global Data Link Implementation Strategy and develop harmonized solutions to support air-ground data link communications.</p> <p><b>Recommendation 1.4/1 — Cost-benefit analysis (CBA) in support of assets deployment</b></p> <p>That States:</p> <p>a) perform a cost-benefit analysis (CBA) as part of all required impact assessments, in coordination with air navigation services providers (ANSPs) and among other relevant stakeholders, when defining optimum solutions for improvements in the performance of the air navigation system through the use of the aviation system block upgrades (ASBU) framework;</p> <p>b) use a simplified mechanism, if they do not have a process already in place, such as the checklist available on the Global Air Navigation Plan</p>	<p>a) to c): Approve and request the Secretary General to take the appropriate actions and bring to the attention of States.</p>	<p>d): Approve, include in the AN work programme and request the Secretary General to take the appropriate actions related to the monitoring of the development of international standards and provide guidance to relevant expert groups to make use of these where they are of practical benefit in the development of ICAO provisions.</p> <p>e): Approve and continue to monitor the progress of the existing item in the AN work programme and request the Secretary General to take the appropriate actions related to the development of a framework to expedite the work and provide continuing support to the relevant expert groups.</p> <p>a) and b): Note.</p>

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<p>(GANP) Portal, for CBA of air navigation infrastructure investment projects to support improvements as described in the ASBU framework; and</p> <p>That ICAO:</p> <p>c) support the implementation of applicable CBA methodologies through dedicated workshops.</p>		<p>c): Note and request the Secretary General to take the appropriate actions related to the organization of events on the subject linked to the GANP developments.</p>

**Agenda Item 2: Enabling the global air navigation system** — 2.1: Aerodrome operations and capacity; 2.2: Integrated CNS and spectrum strategy; and 2.3: Future provision of aeronautical meteorological service **Recommendation 2.1/1 — Aerodrome capacity and efficiency enhancement**

<p>That States:</p> <p>a) review, as needed, all options to increase aerodrome capacity, including increasing the efficiency of existing aerodrome infrastructure, reviewing the need for investment in new infrastructure and mitigating restrictions in surrounding airspace;</p> <p>b) establish a plan for the certification of aerodromes under their jurisdiction, in accordance with their national regulations, incorporating the identification of gaps and implementation of solutions to overcome those gaps, including the assessment and development of mitigation measures in areas of non-compliance;</p> <p>That ICAO:</p> <p>c) progress the work on the development of</p>	<p>a) and b): Approve and request the Secretary General to bring to the attention of States.</p> <p>c) to f): Note</p>	<p>a) and b): Note.</p> <p>c): Approve, include in the AN work</p>
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RECOMMENDATIONS ADOPTED BY AN-CONF/13	SUGGESTED FOLLOW-UP ACTION	
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<p>provisions related to aerodrome design and operations in support of aerodrome capacity and efficiency enhancement;</p> <p>d) explore new areas for enhancing aerodrome capacity and efficiency, including total airport management (TAM), reduced separation Standards, joint civil military aerodromes and other new initiatives and technologies such as folding wing tip (FWT);</p> <p>e) continue to provide assistance to States in the area of aerodrome certification; and</p> <p>f) monitor developments such as New Experience Travel Technologies (NEXTT) and consider the formulation of provisions, where necessary, to support their implementation.</p> <p><b>Recommendation 2.1/2 — Total airport management (TAM) and airport throughput</b></p> <p>That States:</p> <p>a) implement airport collaborative decision-making (A CDM) and, when appropriate, extend A CDM to incorporate total airport management (TAM);</p>	<p>a): Approve and request the Secretary General to bring to the attention of States.</p>	<p>programme and request the Secretary General to take appropriate actions to continue supporting on-going work by the Aerodrome Design and Operations Panel (ADOP) as well as the work with expert groups to incorporate work items on aerodrome design and operations for aerodrome capacity and efficiency.</p> <p>d): Approve, include in the AN work programme and request the Secretary General to take appropriate actions to support the relevant expert groups to ensure that the development of enhanced aerodrome capacity and efficiency measures are aligned with this recommendation.</p> <p>e): Approve, include in the AN work programme and request the Secretary General to take appropriate actions to continue supporting the on-going work and the update guidance material.</p> <p>f): Approve, include in the AN work programme and request the Secretary General to take appropriate actions to monitor industry’s developments and engage the ADOP for the formulation of provisions, as necessary.</p> <p>a): Note.</p>



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<p>b) ensure through the implementation of a safety oversight programme that the designated competent authorities are involved in safety case assessments of the radio frequency environment so as to adequately protect the operational availability of aeronautical CNS systems;</p> <p>That ICAO:</p> <p>c) launch a study, built on a multi-disciplinary view of the C, N and S elements and frequency spectrum, to evolve the required CNS and frequency spectrum access strategy and systems roadmap in the short, medium and long term, in a performance based and service-oriented manner, to ensure that CNS systems remain efficient users of the spectrum resource; and</p> <p>d) develop provisions, in collaboration with States and regional modernization programmes, to support increased civil-military interoperability and synergies with the optimum reutilization opportunities from State and military aviation technologies and to take advantage of opportunities arising from new entrants, such as unmanned aircraft systems (UAS) and suborbital vehicles.</p> <p><b>Recommendation 2.2/2 — Global navigation satellite system (GNSS) evolution</b></p> <p>That States:</p> <p>a) when defining their air navigation strategic plans, take advantage of the improved robustness and performance offered by dual-frequency, multi constellation (DFMC) global navigation satellite</p>	<p>c) to d) : Note</p>	<p>b): Note and request the Secretary General to take the appropriate actions related to exploring methods to facilitate safety oversight of the radio frequency environment through the State safety programmes</p> <p>c) and d): Approve, include in the AN work programme and request the Secretary General to take appropriate actions, to establish an ad hoc group consisting of suitable CNS and spectrum experts to launch a study; and consider developing provisions based on the results of the study.</p>

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<p>system (GNSS) to deliver incremental operational benefits and encourage related industry developments;</p> <p>b) avoid, in principle, prohibiting the use of available GNSS elements if they perform according to ICAO Standards and Recommended Practices (SARPs) and can meet all safety and regulatory requirements for the intended operations;</p> <p>c) avoid mandating equipage or use of any particular GNSS core constellation or augmentation system unless clear operational benefits are offered in return and appropriate consultations have been made with the relevant airspace users;</p> <p>d) ensure implementation of ICAO provisions for publication of information related to the use of GNSS elements in aeronautical information publications (AIP);</p> <p>e) take timely action to meet the long-term goal whereby every State accepts for lateral navigation use all GNSS elements that are compliant with SARPs, thus creating a positive environment for DFMC GNSS.</p> <p>That ICAO:</p> <p>f) continue the development of SARPs and guidance material for existing and future GNSS elements in coordination with recognized standards-making organizations;</p> <p>g) further develop provisions intended for States and organizations that provide GNSS services regarding publication of service performance</p>	<p>f) to h): Note</p>	<p>f) to h): Approve, include in the AN work programme and request the Secretary General to take appropriate actions to support the updates to the work items of the Navigation Systems Panel (NSP), as required, to implement the recommendations.</p>

RECOMMENDATIONS ADOPTED BY AN-CONF/13	SUGGESTED FOLLOW-UP ACTION	
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<p>standards, regular performance assessment and timely notification of events that may affect the service; and</p> <p>h) develop additional guidance addressing technical and regulatory aspects to assist States in their acceptance and use of existing and future GNSS elements.</p> <p><b>Recommendation 2.3/1 — Future provision of aeronautical meteorological service</b></p> <p>That States:</p> <p>a) and international user organizations ensure that adequate expert capacity is applied in the collaborative management and development of aeronautical meteorological services for international air navigation;</p> <p>That ICAO:</p> <p>b) ensure it has sufficient capacity and expertise to progress the work on the development of provisions related to aeronautical meteorology, including the foreseen impact on international air navigation due to climate change, to be described in the Sixth Edition of the <i>Global Air Navigation Plan</i> (Doc 9750, GANP); and</p> <p>c) develop implementation assistance, including guidance material, for space weather information service, the provision of globally consistent, phenomena-based hazardous meteorological information, the meteorological component of system-wide information management (SWIM), cost-recovery solutions for regional and global systems, and potential new initiatives to address</p>	<p>a): Approve and request the Secretary General to bring it to the attention of States.</p> <p>b) and c) : Note</p>	<p>a) : Note.</p> <p>b) and c): Approve, include in the AN work programme and request the Secretary General to take appropriate actions regarding to implementation assistance as well as to support updates to the work items of the Meteorology Panel (METP), as required, to implement the recommendations.</p>

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<p>issues such as the impact of climate change on aviation, including provision of meteorological services to the air traffic management (ATM) community in the context of increased tropical convective systems.</p> <p><b>Recommendation 2.3/2 — Further Development of IWXXM for the Exchange of Aeronautical Meteorological Information</b></p> <p>That States:</p> <p>a) provide ICAO with their ICAO Meteorological Information Exchange Model (IWXXM) implementation plans before 2020;</p> <p>That ICAO:</p> <p>b) promote the importance of exchanging meteorological information for aeronautical purposes in compliance with the IWXXM;</p> <p>c) in close coordination with the World Meteorological Organization (WMO);</p> <p>1) ensure that the IWXXM format is the only standard exchange format by 2026;</p> <p>2) develop the policies and procedures necessary to ensure a smooth transition from traditional alpha numeric code (TAC) format to IWXXM format for the purpose of data exchange to support international air navigation, as an interim step toward full IWXXM implementation;</p> <p>3) promote awareness of the changes brought about by the IWXXM data format, production, dissemination and data exchange among</p>	<p>a) Approve and request the Secretary General to bring to the attention of States.</p> <p>b) and c): Note</p>	<p>a): Note.</p> <p>b) and c): Approve, include in the AN work programme and request the Secretary General to take appropriate actions to support the updates to the work items of the Meteorology Panel (METP), as required, to implement the recommendations.</p>

RECOMMENDATIONS ADOPTED BY AN-CONF/13	SUGGESTED FOLLOW-UP ACTION	
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<p>operators; and</p> <p>4) monitor the status of implementation of IWXXM at State and regional levels.</p> <p><b>Recommendation 2.3/3 — Provision of space weather information service meeting the operational needs of users</b></p> <p>That States:</p> <p>a) encourage the research into operational impacts of space weather phenomena on civil aviation using performance-based approaches and establish requirements for the use of space weather information for civil aviation;</p> <p>That ICAO:</p> <p>b) continue to facilitate coordination between the space weather information service providers and aeronautical users to clarify the needs and solutions for improved safety and efficiency of civil aviation through the provision of space weather information and training on the use of the information; and</p> <p>c) coordinate with other international organizations, such as the International Telecommunication Union - Radio communication Sector (ITU-R) and the World Meteorological Organization (WMO), to facilitate research into operational impacts of space weather phenomena on civil aviation using performance-based approaches and develop requirements and/or guidance for the use of space weather information for civil aviation.</p>	<p>a): Approve and request the Secretary General to bring to the attention of States.</p> <p>b): Note</p> <p>c): Approve and request the Secretary General to take the appropriate actions.</p>	<p>a): Note.</p> <p>b): Approve, include in the AN work programme and request the Secretary General to take appropriate actions to support the updates to the work items of the Meteorology Panel (METP), as required, to implement the recommendation.</p> <p>c): Note.</p>

RECOMMENDATIONS ADOPTED BY AN-CONF/13	SUGGESTED FOLLOW-UP ACTION	
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<p><b>Recommendation 2.3/4 — Development of cost-recovery mechanisms for the provision of aeronautical meteorological information</b></p> <p>That ICAO:</p> <p>a) support the need to expeditiously identify how aeronautical meteorological service provision has changed, how it will continue to evolve, and how these changes (including those arising from the impact of climate change on aviation) may affect the recovery of relevant costs associated with service provision on a global, multi-regional, regional, and sub-regional basis; and</p> <p>b) in close coordination with the World Meteorological Organization (WMO);</p> <p>1) review deficiencies in the current cost- recovery systems;</p> <p>2) identify new cost-recovery challenges that have arisen (taking into consideration the issues described in a) above); and</p> <p>3) identify possible mechanisms to recover these costs in a manner consistent with <i>ICAO’s Policies on Charges for Airports and Air Navigation Services</i> (Doc 9082).</p>	<p>a) and b): Approve and request the Secretary General to take the appropriate actions.</p>	<p>a) and b): Note and request the Secretary General to take the appropriate actions related to supporting the updates to the work items of the Meteorology Panel (METP), as required, to implement the recommendations, and take appropriate action as directed by the Secretary General.</p>

RECOMMENDATIONS ADOPTED BY AN-CONF/13	SUGGESTED FOLLOW-UP ACTION	
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**Agenda Item 3: Enhancing the global air navigation system** — 3.1: System-wide information management (SWIM); 3.2: Flight and flow information for a collaborative environment (FF-ICE) and trajectory-based operations (TBO); 3.3: Air traffic flow management (ATFM); 3.4: Civil/military cooperation; and 3.5: Other ATM issues

<p><b>Recommendation 3.1/1 — System-wide information management (SWIM)</b></p> <p>That States:</p> <p>a) support developments and implementation of system-wide information management;</p> <p>b) via the mechanism of the planning and implementation regional groups (PIRGs), showcase regional system-wide information management (SWIM) demonstrations, highlighting the operational and economic benefits of SWIM, and evaluate possible transition and mixed-mode scenarios;</p> <p>c) share information, lessons learned and observations regarding SWIM development and implementation;</p> <p>d) develop national implementation plans in alignment with regional strategies and priorities and in accordance with the strategy outlined in the <i>Global Air Navigation Plan</i> (Doc 9750, GANP) which would include SWIM;</p> <p>That ICAO:</p> <p>e) while making use of already developed Standards and best practices, continue the development of provisions related to information services, while including relevant guidance, governance aspects, information content and related information exchange models and supporting technical infrastructure and governance for SWIM in</p>	<p>a) to d) approve and request the Secretary General to bring it to the attention of States.</p> <p>with regional strategies and priorities and in accordance with the strategy outlined in the <i>Global Air Navigation Plan</i> (Doc 9750, GANP) which would include SWIM;</p> <p>e) to h): Note. programme and request the Secretary General to take appropriate actions to continue the SWIM developments through the Information Management Panel (IMP) and develop specific provisions to be included in the GANP.</p>	<p>a) to d): Note.</p> <p>mixed-mode scenarios;</p> <p>e) to h): Approve, include in the AN work programme and request the Secretary General to take appropriate actions to continue the SWIM developments through the Information Management Panel (IMP) and develop specific provisions</p>
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RECOMMENDATIONS ADOPTED BY AN-CONF/13	SUGGESTED FOLLOW-UP ACTION	
	COUNCIL	AIR NAVIGATION COMMISSION (ANC)
<p>sufficient detail to ensure safe, efficient and secure globally seamless operations;</p> <p>f) consider the concept of a global SWIM framework as part of the GANP and the aviation system block upgrades (ASBUs);</p> <p>g) consider security-by-design principles when developing interconnected trusted global SWIM frameworks;</p> <p>h) develop provisions related to the harmonization of information exchange models and globally interconnected registries;</p> <p>i) through regional events, and in collaboration with States and industry, promote SWIM and its benefits, as described in the <i>Manual on System-wide Information Management</i> (Doc 10039), as well as implementation best practices to the aviation community; and</p> <p>j) provide assistance to States to support the implementation of Annex 15 — <i>Aeronautical Information Services and Procedures for Air Navigation Services — Aeronautical Information Management</i> (Doc 10066, PANS-AIM).</p> <p><b>Recommendation 3.2/1 — Trajectory-based operations (TBO)</b></p> <p>That States:</p> <p>a) along with stakeholders, continue to provide ICAO with the developments and lessons learned from air traffic management (ATM) modernization programmes;</p>	<p>i) and j): Approve and request the Secretary General to take the appropriate actions.</p>	<p>i) and j): Note.</p>

RECOMMENDATIONS ADOPTED BY AN-CONF/13	SUGGESTED FOLLOW-UP ACTION	
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<p>b) along with stakeholders, work through ICAO to identify and address, not only potential issues, but also opportunities such as the improved management of global traffic flows through a global network-centric approach to ensure the successful development and implementation of trajectory based operations (TBO);</p> <p>c) along with stakeholders, through the mechanism of the planning and implementation regional groups (PIRGs), integrate current implementation efforts with regional transition plans for flight and flow information for a collaborative environment (FF ICE), system-wide information management (SWIM) and TBO;</p> <p>That ICAO:</p> <p>d) finalize the global TBO concept and its elements in the Sixth edition of the <i>Global Air Navigation Plan</i> (Doc 9750, GANP) and the aviation systems block upgrade (ASBU) framework; and</p> <p>e) develop guidance on transitioning to a globally interoperable TBO environment in the context of ongoing ATM initiatives while addressing all domains of ATM systems and taking into consideration existing and new types of airspace users.</p>	<p>d) and e): Note</p>	<p>d): Approve, continue to monitor the progress of the existing item in the AN work programme and request the Secretary General to take the appropriate actions related to providing continuing support to Air Traffic Management Requirements and Performance Panel (ATMRPP).</p> <p>e): Approve, refer to an appropriate expert group and request the Secretary General to take the appropriate actions related to working with expert groups to incorporate work items on TBO and execute the work as approved by ANC</p>

RECOMMENDATIONS ADOPTED BY AN-CONF/13	SUGGESTED FOLLOW-UP ACTION	
	COUNCIL	AIR NAVIGATION COMMISSION (ANC)
<p><b>Recommendation 3.2/2 — Flight and flow information for a collaborative environment (FF-ICE)</b></p> <p>That States:</p> <p>a) along with stakeholders, work through ICAO to finalize ICAO provisions and guidance material, in support of the initial implementation of flight and flow information for a collaborative environment (FF-ICE) by providing the results of operational and technical performance validation and cost-benefit analysis (CBA);</p> <p>That ICAO:</p> <p>b) develop a robust transition strategy to minimize any potential negative impacts during the mixed mode operations of current ICAO flight plan processing and FF ICE; and</p> <p>c) continue its work concerning the investigation of necessary information exchange content and supporting processes for the next evolution of FF ICE.</p> <p><b>Recommendation 3.3/1 — Network operations (NOPS)</b></p> <p>That States:</p> <p>a) implement collaborative decision-making (CDM) processes in support of effective airspace management in the provision of air navigation services, including cross border operations and resource management;</p>	<p>a): Approve and request the Secretary General to bring to the attention of States.</p> <p>b) and c): Note</p> <p>a) and b): Approve and request the Secretary General to bring to the attention of States.</p>	<p>a): Note.</p> <p>b) and c): Approve and continue to monitor the progress of the existing items in the AN work programme, and request the Secretary General to take the appropriate actions related to providing continuing support to the Air Traffic Management Requirements and Performance Panel (ATMRPP).</p> <p>a) and b): Note</p>



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<p>That ICAO:</p> <p>c) identify potential opportunities for civil-military collaboration, develop a mechanism to collaborate with the military community early in the development of global provisions and guidance, and establish guidance for collaboration with the military community at global and regional levels;</p> <p>d) incorporate the military dimension, including civil military cooperation and collaboration, in future editions of the <i>Global Air Navigation Plan</i> (Doc 9750, GANP);</p> <p>e) consider, with urgency and in collaboration with the military community, the interoperability and governance principles for the military community in system-wide information management (SWIM) and in the development of the ICAO trust framework; and</p> <p>f) consider, where possible, the inclusion of civil-military cooperation and collaboration subjects at ICAO events, and highlight the participation of military authorities in relevant State letter invitations.</p> <p><b>Recommendation 3.4/2 — Civil-military cooperation implementation</b></p> <p>That States:</p> <p>a) encourage their military authorities to cooperate and coordinate with civil aviation authorities and air navigation services providers (ANSPs) on airspace use, including airspace access</p>	<p>c) to f): Note</p> <p>a): Approve and request the Secretary General to bring to the attention of States.</p>	<p>c) and e): Approve, include in the AN work programme and request the Secretary General to take appropriate action related to the development of a framework for undertaking collaboration with the military community and provide continuing support to the relevant expert group.</p> <p>d): Approve and request the Secretary General to take appropriate actions as part of the ongoing work to develop the Sixth Edition of the GANP.</p> <p>f): Approve and request the Secretary General to take the appropriate actions to consider the recommendation during the planning and organization of ICAO events on a global and regional level.</p> <p>a): Note</p>

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<p>requirements, to achieve the most efficient use of airspace based on actual needs and, when possible, avoid permanent airspace segregation;</p> <p>That ICAO:</p> <p>b) promote civil-military coordination and cooperation of best practices, and provide forums and other opportunities, such as regional symposiums, for States to exchange best practices; and</p> <p>c) explore opportunities to provide guidance to enhance safety at joint civil-military aerodromes and to assist States in the promulgation of clear procedures for airspace access requirements.</p>	<p>b) and c): Note</p>	<p>b): Approve, include in the AN work programme and request the Secretary General to take appropriate actions related to convening regional events to promote the implementation of civil/military coordination and cooperation and the exchange of best practices.</p> <p>c): Approve, include in the AN work programme and request the Secretary General to take the appropriate actions related to incorporation of work items related to civil-military coordination and cooperation or update existing work items. Also, request the Secretary General to take the appropriate actions related to developing guidance materials, and provide continuing support to ADOP to progress this action, and further provide guidance to expert groups to ensure that development of guidance on airspace access promulgation is aligned with this recommendation.</p>
<p><b>Recommendation 3.5/1 — ICAO location indicator system and database of significant points</b></p> <p>That States:</p> <p>a) and industry stakeholders, urgently complete the population of the ICAO International Codes and Routes Designators (ICARD) database with all five letter name codes (5LNC) used worldwide to</p>	<p>a) and b): Approve and request the Secretary General to take appropriate action.</p>	<p>a) and b): Note</p>

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<p>ensure the accuracy of the database;</p> <p>b) and industry stakeholders, ensure that whenever a 5LNC that is used for military purposes is published in an ICAO Aeronautical Information Publication (AIP) and consequently coded into aircraft flight management system (FMS), such 5LNCs are coordinated through the ICARD process; That ICAO:</p> <p>c) continue to address the limitations of both location indicator and 5LNC availabilities in the short term and determine a long term solution;</p> <p>d) consider, when developing such solutions, the need for global harmonization and interoperability;</p> <p>e) continue with its efforts to improve awareness and training on the use of ICARD in the regions that do not actively use ICARD;</p> <p>f) continue to work towards removing duplicated 5LNCs and sound-like conflicts; and</p> <p>g) implement improvements to the ICARD database functionality, including the use of maps depicting flight information regions (FIRs), more information regarding 5LNC history and sound- like proximity checks for codes held in reserve but not yet allocated to a region.</p> <p><b>Recommendation 3.5/2 — Coordinated crisis management</b></p> <p>That States:</p>	<p>c) to g): Note</p>	<p>c) to g): Approve, include in the AN work programme and request the Secretary General to take appropriate actions related .to continuing the work on location indicators and 5LNC to ensure sustainable solutions for global harmonization and interoperability.</p>

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<p>a) along with industry stakeholders, engage in an active and coordinated manner when dealing with crisis management, enhanced preparedness for disasters, contingency planning and post crisis reviews; and</p>	<p>a): Approve and request the Secretary General to bring to the attention of States.</p>	<p>a): Note</p>
<p>That ICAO:</p>		
<p>b) develop guidance on a coordinated approach to crisis management, including subjects such as business continuity, the role of air traffic flow management (ATFM) in support of crisis management and the importance of post crisis reviews.</p>	<p>b): Note</p>	<p>b): Approve, include in the AN work programme and request the Secretary General to take appropriate actions to support the appropriate expert group in the development of the guidance material.</p>
<p><b>Recommendation 3.5/3 — Certification of ANSPs</b></p>		
<p>That ICAO investigate the potential benefits, balanced against the associated costs, of the development of provisions and guidance material for certification of air navigation services providers (ANSPs).</p>	<p>Note</p>	<p>Approve and refer to an appropriate expert group, as well as request the Secretary General to take the appropriate actions related to facilitating the assessment and incorporate work items into the AN work programme, as necessary, and execute the work as approved by ANC.</p>
<p><b>Recommendation 3.5/4 — True North</b></p>		
<p>That ICAO conduct a detailed study into the technical, operational, and economic feasibility of changing to a “True North” reference system.</p>	<p>Note</p>	<p>Approve and refer to an appropriate expert group as well as request the Secretary General to take the appropriate actions related to facilitating the assessment and incorporate work items into the AN work programme, as necessary, and execute the work as approved by ANC.</p>

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<p><b>Agenda Item 4: Implementing the global air navigation system and the role of planning and implementation regional groups (PIRGs)</b> — 4.1: The economic benefits brought by aviation; 4.2: Implementing BBBs and minimum service Standards; 4.3: Implementing ASBUs for performance improvement; and 4.4: Implementing search and rescue (SAR) processes and procedures</p>		
<p><b>Recommendation 4.1/1 — State National</b> <b>Development Plans</b></p> <p>That States:</p> <p>a) establish a defined connection between their air navigation and safety plans, as well as other relevant national plans;</p> <p>b) include clear references to the United Nations Sustainable Development Goals (UN SDGs) in their air navigation and safety plans, as well as in other relevant national plans, with the objective of showcasing the contribution of aviation to the UN SDGs and national economies;</p> <p>That ICAO:</p> <p>c) engage with States to promote the importance of aviation development, taking into consideration environmental and socio-economic aspects, and to include aviation within their relevant national plans, and, as necessary, national budgeting, which might be vital to unlocking funding for aviation needs; and</p> <p>d) develop guidance for States to include aviation within their relevant national plans taking into consideration global and regional planning.</p> <p><b>Recommendation 4.2/1 —</b> <b>Implementation of essential air navigation services</b></p> <p>That States:</p> <p>a) consider the use of more advanced technologies and procedures, in coordination with</p>	<p>a) and b): Approve and request the Secretary General to bring to the attention of States.</p> <p>c) and d): Approve, and request the Secretary General to take appropriate action.</p> <p>a) and b): Approve and request the Secretary General to bring to the attention of States.</p>	<p>a) and b): Note</p> <p>c) and d): Note.</p> <p>a) and b): Note</p>

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<p>international organizations and industry stakeholders, to provide the essential air navigation services for international civil aviation, taking into account the principles of global interoperability and performance specification compliance;</p> <p>b) include planning for the implementation of the essential services outlined in the proposed basic building blocks (BBB) framework within their national air navigation plans;</p> <p>That ICAO:</p> <p>c) in coordination with the planning and implementation regional groups (PIRGs) and by making use of existing reporting mechanisms, verify the provision of the essential air navigation services for international civil aviation, as outlined in the proposed BBB framework, through the methodology for the identification of air navigation deficiencies against the regional air navigation plans;</p> <p>d) develop the necessary tools to support the PIRGs in the verification of the provision of the proposed basic building block (BBB) services at the regional and national levels;</p> <p>e) coordinate the interoperability of systems and harmonization of procedures at a regional level, through the PIRGs, in relation to the use of advanced technologies and concepts of operations, taking into account global requirements;</p> <p>f) in line with the No Country Left Behind (NCLB) initiative, provide the necessary technical</p>	<p>c) to g): Approve, and request the Secretary General to take appropriate action.</p>	<p>c) to g): Note.</p>

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<p>assistance to States for the provision of essential air navigation services as identified by the PIRGs and as reflected in State national air navigation plans; and</p> <p>g) urge the aviation manufacturing industry to create a testing environment for States to justify procurement decisions which guarantee interoperability and system functionality within local specific environments, as a follow-up to the provision of essential air navigation services.</p> <p><b>Recommendation 4.3/1 — Improving the performance of the air navigation system</b></p> <p>That States:</p> <p>a) adopt and adapt as needed, the six step performance management process for the planning and implementation of air navigation improvements and reflect this process in their national air navigation plans;</p> <p>b) align their national air navigation plans with regional plans to attain a globally harmonized performance management process and support the achievement of global performance objectives;</p> <p>c) support ICAO in promoting the No Country Left Behind (NCLB) initiative and reaffirm their commitment to the development of timely and accurate national air navigation plans aligned with regional and global plans;</p>	<p>a) to c): Approve and request the Secretary General to bring to the attention of States.</p>	<p>a) to c): Note, and request the Secretary General to take the appropriate actions when addressing a), in the communication of the actions addressed to States, to reference the six step performance management process described in the <i>Manual on Global Performance of the Air Navigation System</i> (Doc 9883).</p>

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<p>That ICAO:</p> <p>d) encourage the planning and implementation regional groups (PIRGs) to embrace a performance-based approach for implementation and adopt the six step performance management process, as described in the <i>Manual on Global Performance of the Air Navigation System</i> (Doc 9883), by reflecting the process in Volume III of all regional air navigation plans;</p> <p>e) continue to expedite the work on performance indicators related to the <i>Global Air Navigation Plan</i> (Doc 9750, GANP), including their review by an appropriate group of performance experts, and consider establishing such an expert group under the Global Air Navigation Plan (GANP) Study Group; and</p> <p>f) examine possible operational incentives in the development of new air traffic management (ATM) concepts.</p> <p><b>Recommendation 4.3/2 — Regional and national collaboration and implementation initiatives</b></p> <p>That States:</p> <p>a) adhere to the implementation commitments agreed at the regional level, and reflected in the regional air navigation plans, in order to effectively deploy regional initiatives;</p> <p>b) cooperate among themselves and with the industry to strengthen State implementation</p>	<p>d): Approve, and request the Secretary General to take appropriate action.</p> <p>e) and f): Note.</p> <p>a) to f): Approve and request the Secretary General to bring to the attention of States.</p>	<p>d): Note and request the Secretary General to take the appropriate actions related to updating the eANP Vol III template to reflect the six-step performance management process as described in the <i>Manual on Global Performance of the Air Navigation System</i> (Doc 9883) and brief the Regional Offices.</p> <p>e) and f): Approve, include in the AN work programme and request the Secretary General to take appropriate actions to establish a group of experts to continue the development of GANP performance framework under the GANP SG and task the ASBU Panel Project Team (PPT) to identify possible operational incentives to promote the implementation of operational improvements to modernize the ATM system.</p> <p>a) to f): Note.</p>

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<p>provisions within the framework of the No Country Left Behind (NCLB) initiative;</p> <p>c) plan the modernization of their air navigation system together with all stakeholders, based on local needs and available resources, taking into account regional and global commitments;</p> <p>d) recognize the important contribution being provided by the Africa-Indian Ocean (AFI) Plan towards the implementation of an effective regional framework for the African Air Navigation Services Provider (ANSP) Peer Review Programme to enhance the safety and efficiency of air transport operations in Africa;</p> <p>e) support the implementation of ICAO initiatives to improve the efficiency and effectiveness of regional processes;</p> <p>f) encourage the participation of high level authorities in the decision making process for planning and implementation;</p> <p>That ICAO:</p> <p>g) encourage States, regions and international organizations to support cross-border, interregional and intra-regional collaborative planning, activities and projects, supporting effective, efficient and expeditious harmonization;</p> <p>h) continue to provide support to the African air navigation services provider (ANSP) Peer Review Programme;</p>	<p>g) and h): Note</p>	<p>g) and h): Approve and request the Secretary General to take appropriate actions to continue supporting States and regions on the implementation of air navigation operational improvements and encouraging collaboration and coordination among States, regions and stakeholders.</p>

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<p>i) urge States, in coordination with the industry, to support the implementation of regional priorities;</p> <p>j) support the implementation of an action plan for the development of aviation infrastructure in Africa under the Comprehensive Regional Implementation for Aviation Safety in Africa (AFI Plan);</p> <p>k) encourage States and organizations to continue sharing surveillance data to improve safety and efficiency in air traffic management;</p> <p>l) encourage regional collaboration and coordination as well as the use of incentives when planning the implementation of operational improvements to enable all stakeholders to achieve the benefits expected from the implementation; and</p> <p>m) encourage African States and industry to continue to work together within the African Flight Procedure Programme (AFPP).</p> <p><b>Recommendation 4.4/1 — Search and rescue (SAR) and the Global Aeronautical Distress and Safety System (GADSS)</b></p> <p>That States:</p> <p>a) through the planning and implementation regional groups (PIRGs), examine the possibilities of combining their respective</p>	<p>i) and j): Approve and request the Secretary General to take appropriate action.</p> <p>k): Note.</p> <p>l) and m): Approve and request the Secretary General to take appropriate action.</p> <p>a) to c): Approve and request the Secretary General to bring to the attention of States.</p>	<p>i) and j): Note.</p> <p>k): Approve and request the Secretary General to take the appropriate actions related to supporting States and regions on the implementation of air navigation operational improvements and encouraging collaboration and coordination among States, regions and stakeholders.</p> <p>l) and m): Note.</p> <p>a) to c): Note.</p>

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<p>capabilities to improve search and rescue (SAR) effectiveness;</p> <p>b) take advantage of the PIRGS to actively promote the establishment of bilateral or multilateral SAR agreements;</p> <p>c) support regional initiatives to implement SAR by organizing high-level conferences in coordination with ICAO, industry and international partners;</p> <p>That ICAO:</p> <p>d) complete the development of Standards and Recommended Practices (SARPs) and Procedures for Air Navigation Services (PANS) provisions related to GADSS, as necessary, and support their implementation;</p> <p>e) organize regional SAR seminars and/or workshops to facilitate implementation of the Global Aeronautical Distress and Safety System (GADSS);</p> <p>f) emphasize to States the importance of implementing Standards and Recommended Practices (SARPs) and Procedures for Air Navigation Services (PANS) provisions which support GADSS, related to aircraft tracking and to the location of an aeroplane in distress;</p> <p>g) invite the appropriate expert groups to provide advice on the implementation of GADSS;</p>	<p>d), g) and h): Note.</p> <p>e) and f): Approve, request the Secretary General to take the appropriate actions.</p>	<p>d) and h): Approve and continue to monitor the progress of the existing items in the AN work programme, and request the Secretary General to take the appropriate actions related to continue, through the respective group of experts, the development of SAR provisions including GADSS, and provide continuing support to the relevant expert groups involved in the implementation of the GADSS.</p> <p>e) and f): Note.</p> <p>g): Approve and continue to monitor the progress of the existing items in the AN</p>

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<p>h) review the need for a requirement for a performance-based Standard to accurately determine the location of the end of flight, particularly over terrain, in the scope of efficient SAR operations; and</p> <p>i) include the general organization of SAR in future editions of the GANP.</p>	<p>i): Note.</p>	<p>work programme.</p> <p>i): Approve, include in the AN work programme and request the Secretary General to take the appropriate actions related to inclusion of GADSS as a thread in the GANP.</p>

**Agenda Item 5: Emerging issues** — 5.1: Operations above Flight Level 600; 5.2: Operations below 1000 feet; 5.3: Remotely piloted aircraft system (RPAS); 5.4: Cyber resilience; and 5.5: Other emerging issues impacting the global air navigation system including unmanned aircraft systems (drones), and supersonic and commercial space operations

**Recommendation 5.1/1 — Operations above flight level 600**

That States:

a) with relevant experience in higher airspace operations, share, through ICAO where appropriate, their experience and expertise with other States and provide assistance to other States on the regulatory aspects of these operations;

b) expected to benefit from higher airspace operations, agree to consider risk based operational trials in their airspace;

That ICAO:

c) support ongoing higher airspace operations by providing guidance and, as necessary, other provisions on the regulatory aspects of these operations;

a) and b): Approve and request the Secretary General to bring to the attention of States.

c) to g): Note. programme and request the Secretary General to take appropriate actions related to the development of guidance material as

a) and b): Note.

c): Approve, include in the AN work programme and request the Secretary General to take appropriate actions related to the development of guidance material as

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<p>d) work with States and industry to share information on current and forecasted needs for higher airspace operations, to identify issues affecting the global air navigation system and to proactively address harmonization for these operations;</p> <p>e) consider establishing a multidisciplinary group of experts to consider needed criteria, operational issues, and operator and provider responsibilities for operations in higher airspace;</p> <p>f) develop a performance based global framework for higher airspace operations considering current and future work in emerging technologies, for example, in the areas of information management and sharing, strategic planning, separation and environmental Standards, situational awareness and security; and</p> <p>g) ensure that the framework includes flights transitioning through controlled airspace and to and through airspace above FL600, as necessary.</p> <p><b>Recommendation 5.2/1 — Very low altitude operations</b></p> <p>That States:</p> <p>a) collect and share information regarding very low altitude operations, including on unmanned aircraft systems traffic management (UTM) systems, autonomous operations initiatives and tactical risk assessment models;</p>	<p>a) and b): Approve and request the Secretary General to bring to the attention of States.</p>	<p>necessary.</p> <p>d): Approve, include in the AN work programme and request the Secretary General to take the appropriate actions related to launching an online platform for sharing information.</p> <p>e), f) and g): Approve, include in the AN work programme and request the Secretary General to take the appropriate actions related to putting forward for ANC consideration a proposal on form and terms of reference for the group including the development of the performance-based framework for higher airspace operations.</p> <p>a) and b): Note.</p>

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<p>b) ensure that UTM systems are interoperable with existing air traffic management (ATM) systems; That ICAO:</p> <p>c) contribute to the development of operational solutions and guidance, including on UTM systems, autonomous operations and tactical risk assessment models, to support the safe and coordinated implementation of aviation activities at very low altitude, particularly in urban and suburban environments, including in the vicinity of, and into, aerodromes;</p> <p>d) continue serving as the global and regional facilitator and forum for States, industry, academia and other interested stakeholders in the development of UTM systems, including developing guidance for the identification, structuring and implementation of necessary financing mechanisms such as public-private partnerships (PPPs);</p> <p>e) continue developing provisions and guidance material for the development, harmonization and implementation of UAS regulations, consistent with the key policy principles set forth in the Global Air Navigation Plan (GANP);</p> <p>f) develop a solution to enable States to authorize operations of non-certificated UAS over the high seas, using parameters to be defined in a transparent manner, including investigating the maximum altitude at which these operations would be allowed;</p> <p>g) develop Standards and Recommended Practices (SARPs), guidance or “best practices” related to</p>	<p>c) to l): Note.</p>	<p>c) to e): Approve, include in the AN work programme and request the Secretary General to take appropriate actions to organize an annual DRONE ENABLE symposia with focus on prioritized topics; and to review the TORs of the expert group as well as to advance the UTM framework document online..</p> <p>f): Approve, include in the AN work programme and request the Secretary General to take the appropriate actions related to convening an expert group to draft Annex 2 Standards and supporting guidance material.</p>

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<p>UTM, including autonomous operations, after States and regions have had sufficient time to test and validate concepts;</p> <p>h) encourage UTM providers to implement the highest level of cyber security standards that are consistent with aviation community expectations and guidelines for very low altitude airspace operations;</p> <p>i) support and coordinate the implementation of core airspace management services including, but not limited to, geofencing and geo-referencing, as well as ensuring ATM and UTM interfaces;</p> <p>j) actively cooperate with States at the regional level for the development and implementation of UTM;</p> <p>k) continue the development of a global aircraft registration network (ARN); and</p> <p>l) continue conducting awareness and educational activities amongst users, and facilitate the exchange of information amongst States regarding their UAS regulations.</p>		<p>General to take the appropriate actions related to monitoring UTM and autonomous operations demonstrations, with a view to produce Standards and Recommended practices when sufficient maturity is achieved.</p> <p>h): Approve, include in the AN work programme and request the Secretary General to take the appropriate actions related to progressing the work on the trust framework and focus on cyber threats in upcoming DRONE ENABLE symposium.</p> <p>i): Approve, include in the AN work programme and request the Secretary General to take the appropriate actions related to progressing the work on the UTM framework document online.</p> <p>l): Approve, include in the AN work programme and request the Secretary General to take the appropriate actions related to encouraging regional activities and task forces related to UTM.</p> <p>k): Approve, include in the AN work programme and request the Secretary General to take the appropriate actions related to continuing the development and deployment of the ARN.</p> <p>l): Approve, include in the AN work programme and request the Secretary General to take the appropriate actions related to the organization of symposia and workshops.</p>

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<p><b>Recommendation 5.3/1 — Remotely piloted aircraft systems (RPAS)</b></p> <p>That States:</p> <p>a) collect and share information on remotely piloted aircraft systems (RPAS) operations;</p> <p>b) actively engage industry stakeholders to collect and provide technical data to ICAO on RPAS operations needed to support the development of SARPs for RPAS, including those SARPs required for detect and avoid (DAA) and C2 Link;</p> <p>c) support the cross-disciplinary development of RPAS-related SARPs and guidance material across expert groups of ICAO;</p> <p>That ICAO:</p> <p>d) continue development of the regulatory framework necessary to support the integration of RPAS into non-segregated airspace and aerodromes, and facilitate related implementation roll-out activities;</p> <p>e) continue developing guidance material to support safe RPAS operations, to facilitate implementation through regional training activities, to conduct awareness and educational activities amongst users, and to facilitate the collection and sharing of information amongst States regarding their RPAS operations and</p>	<p>a) to c): Approve and request the Secretary General to bring to the attention of States.</p> <p>d) to i): Note.</p>	<p>a) to c): Note.</p> <p>d) and e): Approve, and continue to monitor the progress of the existing item in the AN work programme, and request the Secretary General to take the appropriate actions related to continuing support to the work of the RPAS Panel and update the RPAS workshop content, develop licensing/training guidance material and roll-out activities and conduct symposia.</p>

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<p>regulations;</p> <p>f) assess the work underway in its expert groups and identify additional activities required to implement RPAS-related SARPs and guidance such as DAA and C2 Link;</p> <p>g) provide an update on a fully integrated approach for ICAO’s RPAS-related work programme to the 40th Session of the Assembly in 2019;</p> <p>h) in coordination with States and military stakeholders, propose the best selection for the establishment of a secondary surveillance radar (SSR) code for lost C2 Link events within appropriate Annexes, Procedures for Air Navigation Services (PANS), regional air navigation plans and other relevant documents; and</p> <p>i) consider the use of gender-neutral RPAS-related terminology, following appropriate research.</p> <p><b>Recommendation 5.4/1 — Cyber resilience</b></p> <p>That States:</p> <p>a) in coordination with stakeholders, provide the necessary support for ICAO to evolve the global trust framework as an enabler of flight operations in a digitally connected environment;</p> <p>b) recognize that the cyber resilience of the aviation system depends on continued coordination amongst all relevant aviation and non-aviation stakeholders;</p>	<p>a) to e): Approve and request the Secretary General to bring to the attention of States.</p>	<p>f) and g): Approve, include the AN work programme and request the Secretary General to take appropriate actions to coordinate with the ICAO expert groups and provide information during the 40th Session of the ICAO Assembly.</p> <p>h): Approve, include the AN work programme and request the Secretary General to take the appropriate actions related to conducting a State survey on use of 7400 or alternate SSR code.</p> <p>i): Approve, and request the Secretary General to take the appropriate actions related to considering conducting the appropriate research.</p> <p>a) to e): Note.</p>

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<p>c) recognize the need to be prepared to respond to cyber events;</p> <p>d) in coordination with industry and international organizations, work with ICAO to increase awareness of cyber threats and system resilience processes, and coordinate cyber-related incident information sharing and training activities;</p> <p>e) recognize the need to share information related to cyber events with other States and international organizations through appropriately designated channels;</p> <p>That ICAO:</p> <p>f) establish a formal project involving States, international organizations and relevant stakeholders for the urgent and transparent development of a globally harmonized aviation trust framework through a group of experts. Priority should be given to governance principles;</p> <p>g) coordinate with both aviation and non-aviation technical experts in the development of the trust framework, and in particular with the governing bodies of the Internet;</p>	<p>f) to n), except h): Approve, and request the Secretary General to take appropriate action.</p>	<p>f) to n), except h): Note, and request the Secretary General to take the appropriate actions related to:</p> <ul style="list-style-type: none"> <li>- Develop the scope and terms of reference aiming the establishment of a group of experts to continue the development of the trust framework concept with participation of aviation and non-aviation experts from other industries influencing the aviation ecosystem such as the Internet;</li> <li>- Develop a strategy for cyber resilience and the sharing of information related to cyber incidents;</li> <li>- Promote tabletop exercises to prepare aviation stakeholders to face disruptive cyber incidents; and</li> <li>- Develop an integrated risk management approach to cyber resilience and respective</li> </ul>

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<p>h) incorporate the trust framework into the <i>Global Air Navigation Plan</i> (Doc 9750) in an appropriate manner to highlight its urgent need, its importance and to improve its visibility;</p> <p>i) develop, as a matter of priority, and promote high-level policies and management frameworks for cyber resilience to help mitigate cyber threats and risks to civil aviation based on international industry standards and preferably aligned or integrated with existing management systems;</p> <p>j) recognize the need for the aviation community to be prepared for and be able to respond to cyber events;</p> <p>k) encourage States and international organizations to facilitate information sharing through appropriately designated channels at the global and regional levels;</p> <p>l) promote multidisciplinary State and relevant aviation and non-aviation stakeholder collaboration on cyber information sharing;</p> <p>m) promote tabletop exercises and maintain a repository of lessons learned and scenarios available to Member States; and</p> <p>n) promote a unified framework for an integrated risk management approach (safety, security, environment, financial, etc.) to cyber resilience, taking into account all hazards and threats to the air navigation system.</p>	<p>h): Note.</p>	<p>training material.</p> <p>h): Approve, include in the AN work programme and request the Secretary General to take appropriate actions to support the development of appropriate material.</p>

RECOMMENDATIONS ADOPTED BY AN-CONF/13	SUGGESTED FOLLOW-UP ACTION	
	COUNCIL	AIR NAVIGATION COMMISSION (ANC)
<p><b>Recommendation 5.5/1 — Supersonic transport (SST)</b></p> <p>That States:</p> <p>a) monitor the developments related to the re-emergence of the supersonic transport (SST) sector and, when necessary, engage their regulatory mechanisms to ensure that the necessary policies are in place before supersonic operations become routine;</p> <p>That ICAO:</p> <p>b) note the developments related to the re-emergence of the SST sector, including the work related to Appendix G of Assembly Resolution A39-1, <i>Consolidated statement of continuing ICAO policies and practices related to environmental protection — General provisions, noise and local air quality</i>; and</p> <p>c) monitor the developments and, when necessary, engage regulatory mechanisms to ensure that the necessary policies are in place before supersonic operations become routine.</p> <p><b>Recommendation 5.5/2 — Commercial space transport (CST)</b></p> <p>In recognizing the issues related to commercial space transport (CST) operations potentially affecting international civil aviation, including the safe accommodation of CST operations in airspace and the joint use of aerodromes and other aviation</p>	<p>a): Approve and request the Secretary General to bring to the attention of States.</p> <p>b): Approve, and request the Secretary General to take appropriate action.</p> <p>c): Note.</p>	<p>a): Note</p> <p>b): Note.</p> <p>c): Approve and continue to monitor the progress of the existing item in the AN work programme, and request the Secretary General to take the appropriate actions related to monitoring the developments in this sector and provide information to the relevant ANC Panels which may initiate the Job Card process.</p>

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<p>infrastructure:</p> <p>That States:</p> <p>a) and stakeholders support ICAO activities in the CST field through the sharing of relevant expertise;</p> <p>b) share guidance material, best practices and national provisions related to commercial space operations through controlled airspace, including risk models and the application of relevant safety management principles;</p> <p>That ICAO:</p> <p>c) coordinate its work related to CST operations with the United Nations Office for Outer Space Affairs; and</p> <p>d) establish a means to facilitate the sharing of information as applicable to the interaction between aviation and commercial space transport.</p> <p><b>Recommendation 5.5/3 — Standard-making processes</b></p> <p>ICAO should review and enhance its Standard-making processes in order to meet the requirements of the rapid pace of technological developments.</p>	<p>a) and b): Approve and request the Secretary General to bring to the attention of States.</p> <p>c): Approve, and request the Secretary General to take appropriate action.</p> <p>d): Note.</p> <p>Note.</p>	<p>a) and b): Note.</p> <p>c): Note, and request the Secretary General to take the appropriate actions related to launching a web site for collaboration and organize a Joint ICAO/UNOOSA workshop.</p> <p>d): Approve, include in the AN work programme and request the Secretary General to take appropriate actions to put forward a proposal to ANC for consideration on form and terms of reference for a Joint Working Group on this subject with UNOOSA.</p> <p>Approve, include in the AN work programme and request the Secretary General to take appropriate actions to provide a proposal to ANC for consideration.</p>

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	COUNCIL	AIR NAVIGATION COMMISSION (ANC)
<p><b>Agenda Item 6: Organizational safety issues - 6.1 Strategic plan</b> — 6.1.1: Vision and overview of the Global Aviation Safety Plan (GASP), 2020 2022 edition; 6.1.2: Enabling safety performance monitoring; goals, targets and indicators in the 2020-2022 edition of the GASP; and 6.1.3: Global Aviation Safety Oversight System (GASOS)</p>		
<p><b>Recommendation 6.1/1 — Draft 2020-2022 Edition of the <i>Global Aviation Safety Plan</i> (Doc 10004, GASP)</b></p>		
<p>That States:</p> <p>a) agree in principle with the draft 2020-2022 edition of the <i>Global Aviation Safety Plan</i> (GASP, Doc 10004), with the inclusion of GASP goals and targets; and</p> <p>That ICAO:</p> <p>b) take into consideration input from the Conference, the questionnaire and the future work of the GASP Study Group for subsequent endorsement of the 2020-2022 edition of the GASP at the 40th Session of the ICAO Assembly.</p>	<p>a): Approve and request the Secretary General to bring to the attention of States.</p> <p>b): Note.</p> <p>b): Note. programme and request the Secretary General to take the revision by the GASP-SG of draft GASP (Doc 10004) endorsement.</p>	<p>a): Note.</p> <p>b) Approve, include in the AN work appropriate actions, which should include the before ANC review, Council adoption and A40</p>
<p><b>Recommendation 6.1.3/1 — The global aviation safety oversight system (GASOS)</b></p>		
<p>That States:</p> <p>a) support the development of a global aviation safety oversight system (GASOS);</p> <p>That ICAO:</p> <p>b) continue developing an ICAO GASOS comprised of voluntary and standardized competency assessments of safety oversight organizations for recognition of safety oversight</p>	<p>a): Approve and request the Secretary General to bring it to the attention of States.</p> <p>b) to f): Note. programme and request the Secretary General to take continuation of the</p>	<p>a): Note.</p> <p>b): Approve, include in the AN work appropriate actions, including the</p>

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<p>functions provided to States, including its legal framework and assessment mechanisms while ensuring those States maintain their obligations and responsibilities under the <i>Convention on International Civil Aviation</i> (Doc 7300);</p> <p>c) develop appropriate guidance for States to support the delegation of safety oversight functions and monitoring of safety oversight organizations accepting delegations;</p> <p>d) design adequate interfaces between GASOS and other ICAO programmes and to avoid duplication of activities between GASOS and the Universal Safety Oversight Audit Programme Continuous Monitoring Approach (USOAP CMA);</p> <p>e) present GASOS for endorsement at the 40th Session of the ICAO Assembly if the liability, governance and cost-benefit analysis issues and other concerns raised by the Conference have been addressed; and</p>		<p>development of GASOS in accordance with the implementation plan.</p> <p>c): Approve, include in the AN work programme and request the Secretary General to take the appropriate actions, which should include continuing the development of the GASOS manual and deliver GASOS related workshops to support the delegation of safety functions by States.</p> <p>d): Approve, include in the AN work programme and request the Secretary General to take the appropriate actions, including documenting interfaces with other ICAO programmes in the GASOS processes and procedures.</p> <p>e): Approve, include in the AN work programme and request the Secretary General to take appropriate actions, subject to addressing the issues and concerns in the Recommendation, and request the Secretary General to take the appropriate actions related to the following:  <i>Regarding Liability and legal issues:</i>  Legal Bureau to complete a review of the GASOS legal framework through an ad hoc group and provide a report, with support from the GASOS-SG, as needed.</p> <p><i>Regarding Governance issues:</i>  The GASOS-SG breakout group on “Risks” to review the GASOS Manual addressing this issue.</p>

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<p>f) encourage safety oversight organizations, including regional safety oversight organizations (RSOOs), State civil aviation authorities (CAAs) and other regional State-based mechanisms, to participate in GASOS in order to expand and enhance the safety oversight support provided to States.</p>		<p>Regarding Cost-benefit analysis: Using the results of the GASOS business case and survey, ICAO is to undertake a cost-benefit analysis considering different scenarios.</p> <p>f): Approve, include in the AN work programme and request the Secretary General to take the appropriate actions, which should include continuing to communicate strategies as per the GASOS communications strategies plan, including a GASOS website, flyers, videos, regional workshops and seminars etc.</p>

**Agenda Item 6: Organizational safety issues - 6.2 Implementation of safety management** — 6.2.1: State safety programmes (SSPs); 6.2.2: Safety management systems; and 6.2.3: Developing safety intelligence

**Recommendation 6.2/1 — Supporting effective safety management implementation**

That States:

a) and international organizations identify focal points for the submission of practical examples and tools to be reviewed, validated and posted on the ICAO safety management implementation (SMI) website as a means of sharing successful experiences with the aviation community;

b) and international organizations support the ICAO SMI website by providing practical examples of their respective safety management practices, methodologies and tools for the purpose of sharing with other Member States;

That ICAO:

c) commit to the ongoing development, promotion

a) and b): Approve. a) and b): Note.

c) to i), except, e), g) and h): Note. c): Approve, include in the AN work

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<p>and maintenance of the safety management implementation (SMI) website in order to ensure active use of the tool and relevance of content to the aviation community;</p> <p>d) devise strategies to support the submission and validation of practical examples for the SMI website in the six ICAO working languages (English, Arabic, Chinese, French, Spanish, and Russian ) and ensure the translation of the content posted on the website into the six ICAO working languages;</p> <p>e) develop initiatives tailored to each region with inputs from the regional aviation safety groups (RASGs) in support of the goals and targets of the Global Aviation Safety Plan (GASP) and Global Air Navigation Plan (GANP) with a focus on the effective implementation of State safety programmes (SSPs) and safety management systems (SMSs) at the State and service provider levels, respectively, including the development of the required safety management competencies and/or the delegation to States, regional safety oversight organizations (RSOOs) and regional accident and incident investigation organizations (RAIOs);</p> <p>f) further support the development of appropriate harmonized safety performance indicators (SPIs) at the regional, State and service provider levels and explore the development of means to monitor the effectiveness of SSP and SMS on a more real-time basis;</p>	<p>e), g) and h): Approve, and request the Secretary General to take appropriate action.</p>	<p>programme and request the Secretary General to take appropriate actions, which should include updating the development plan for the SMI website to include feedback from the AN-Conf/13.</p> <p>d): Approve, include in the AN work programme and request the Secretary General to take appropriate actions, which should include devising a strategy, process and plan both administrative and for translation.</p> <p>e): Note and request the Secretary General to take the appropriate actions related to the coordination with regional offices to develop tailored initiatives.</p> <p>f): Approve, include in the AN work programme and request the Secretary General to take appropriate actions, which should include continuing to work with expert groups for the development of SPIs and to develop a project initiation document for the monitoring of SSP and SMS on a more real-time basis.</p>

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<p>g) in collaboration with States, RSOOs and industry explore more powerful methods of identifying hazards and managing risk, suitable for complex socio-technical systems such as aviation and adaptable, regardless of the type of risk;</p> <p>h) in collaboration with States, RSOOs and industry explore the benefits of a unified framework for integrated risk management (safety, security, environment, etc.) taking into account the evolution of ISO management standards; and</p> <p>i) update, for adoption by the 40th Session of the ICAO Assembly, Assembly Resolutions related to safety management to reflect Amendment 1 to Annex 19 — <i>Safety Management</i>, as well as Amendment 15 to Annex 13 — <i>Aircraft Accident and Incident Investigation</i>, with consideration given to an overarching safety management Assembly Resolution to complement Assembly Resolution A39 12, Appendices A and B, related to the <i>Global Aviation Safety Plan (GASP)</i> and <i>Global Air Navigation Plan (GANP)</i> in order to focus the attention of States on key aspects of achieving effective SSP implementation.</p> <p><b>Recommendation 6.2.1/1 — State safety programmes (SSPs)</b></p> <p>That States:</p> <p>a) identify and address the need to build capacity at the State level for the management of change; and</p> <p>b) share their experiences in civil-military</p>		<p>g): Note and request the Secretary General to take the appropriate actions related to working with the Safety Management Panel (SMP) to explore advanced methods of hazard identification and risk management.</p> <p>h): Note and request the Secretary General to take the appropriate actions related to internal coordination between the Air Navigation Bureau and the Air Transport Bureau, and work with the SMP to explore the benefits of a unified framework for integrated risk management.</p> <p>i): Approve, include in the AN work programme and request the Secretary General to take the appropriate actions which should include draft updated Assembly Resolutions related to safety management for adoption by the 40th Session of the ICAO Assembly.</p> <p>a) and b): Note.</p>

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<p>cooperation for State safety programmes (SSPs) implementation in conferences, meetings and/or on the safety management implementation (SMI) website;</p> <p>That ICAO:</p> <p>c) review the acceptable level of safety performance (ALoSP) concept taking into consideration the experience of States;</p> <p>d) review the need for additional guidance on the management of change at the State level; and</p> <p>e) ensure that appropriate emphasis is placed on safety management in the update of Appendix I, Coordination and cooperation of civil and military air traffic, of Assembly Resolution A38/12, <i>Consolidated Statement of continuing ICAO policies and associated practices related specifically to air navigation.</i></p> <p><b>Recommendation 6.2.3/1 — Developing safety intelligence</b></p> <p>That States:</p> <p>a) and international organizations collaborate on the development of trust sharing networks and adhere to the protective provisions as provided in Amendment 1 to Annex 19 — <i>Safety Management</i>; and</p>	<p>c) to e): Note.</p> <p>a): Approve and request the Secretary General to bring it to the attention of States.</p>	<p>c) and d): Approve, include in the AN work programme and request the Secretary General to take appropriate actions, which should include working with the SMP to execute the work as approved and include management of change as a topic in the development of material for workshops and training.</p> <p>e): Approve, include in the AN work programme and request the Secretary General to take the appropriate actions, which should include updating the Appendix I of Assembly Resolution A38/12 related to coordination and cooperation of civil and military air traffic for adoption by the 40th Session of the ICAO Assembly.</p> <p>a): Note.</p>

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<p>That ICAO:</p> <p>b) support States with right-to-know laws in addressing the provisions for the protection of safety data, safety information and related sources in Amendment 1 to Annex 19.</p>	<p>b): Note.</p>	<p>b): Approve, include in the AN work programme and request the Secretary General to take appropriate actions, which should include working with Safety Information Protection Implementation Group (SIP-IG) to identify and develop appropriate support initiatives.</p>

Agenda Item 6: Organizational safety issues - 6.3: Monitoring and Oversight — 6.3.1: The evolution of the Universal Safety Oversight Audit Programme (USOAP) continuous monitoring approach (CMA); and 6.3.2: Support and the USOAP CMA Online Framework (OLF)

**Recommendation 6.3/1 — Universal Safety Oversight Audit Programme (USOAP) Continuous Monitoring Approach (CMA)**

<p>That States:</p> <p>a) continue to engage fully in the Universal Safety Oversight Audit Programme (USOAP) Continuous Monitoring Approach (CMA);</p> <p>b) complete their self-assessments of the USOAP Protocol Questions (PQs) in a detailed and reliable manner and keep them up-to-date as needed;</p> <p>c) enhance cooperation and sharing of experiences in the implementation of USOAP CMA, in particular at the regional level;</p> <p>That ICAO:</p> <p>d) continue to evolve the USOAP CMA methodology, processes and tools;</p>	<p>a) to c): Approve and request the Secretary General to bring to the attention of States..</p> <p>d) to i): Note. programme and request the Secretary General to take appropriate actions, which should include presenting a working paper with GEUSR recommendations to the 40th Session of the ICAO Assembly, requesting</p>	<p>a) to c): Note.</p> <p>d) to h): Approve, include in the AN work programme and request the Secretary General to take appropriate actions, which should include working with Safety Information Protection Implementation Group (SIP-IG) to identify and develop appropriate support initiatives.</p>
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**Agenda Item 7: Operational safety risks** — 7.1: Facilitation of data-driven decision-making in support of safety intelligence to support safety risk management; 7.2: Operational safety risks at the global, regional and national levels, and the role of RSOOs and RASGs in achieving the GASP goals; and 7.3: Other implementation issues

**Recommendation 7.1/1 — Data-driven decision making**

That States:

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| <p>a) implement data-driven decision-making processes, taking into account the ICAO safety and air navigation indicators, within their safety and air navigation activities to build data analysis capacity;</p> <p>b) consider using ICAO’s air navigation analysis solutions, especially during the initial development of their State safety programmes (SSPs), and joining the ICAO Safety Information Monitoring System (SIMS) project to better utilize their stored data;</p> <p>c) exchange safety and air navigation information with other Member States through data analysis tools such as SIMS in support of safety risk management;</p> <p>d) continue joint development of safety risk assessment models that support and enable baseline risk quantification, safety risk assessment and forecasting to support risk based decision making, accident and incident modeling, barrier analysis, sensitivity, and “what if?” analyses to ensure that primary safety considerations are addressed within the integrated safety risk assessment models;</p> <p>e) together with industry stakeholders, support regional mechanisms and platforms for greater</p> | <p>a) to e): Approve and request the Secretary General to bring to the attention of States.</p> | <p>a) to e): Note.</p> |
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<p>data sharing and alignment of safety priorities;</p> <p>That ICAO:</p> <p>f) further develop and promote iSTARS and SIMS and other analysis solutions, and conduct regular iSTARS User Group Meetings so as to continually adapt to the changing safety environment;</p> <p>g) encourage activities that facilitate global reporting of safety events and vulnerabilities to assure that the necessary safety data is available;</p> <p>h) review and develop guidance to further facilitate the sharing of safety data between operators and those responsible for the type design and manufacture of aircraft;</p> <p>i) raise awareness in States on the importance of initiating SSP and SMS implementation with simple processes that optimize resources to demonstrate benefits and develop momentum required to achieve the needed change in the organizational culture;</p> <p>j) take action to foster the creation of uniform processes in States that promote the sharing of safety data;</p>	<p>f) to l): Note.</p>	<p>f) and g): Approve, include in the AN work programme and request the Secretary General to take appropriate actions, which should include continuing to develop and promote iSTARS and SIMS and add new applications as needed and conduct iSTARS User Group Meetings on a regular basis.</p> <p>h): Approve, include in the AN work programme and request the Secretary General to take appropriate actions, which should include continuing to support coordination between the AIRP and the SMP to provide content for the SMI website to further facilitate the sharing of safety data between operators and those responsible for the type design and manufacture of aircraft.</p> <p>i): Approve, include in the AN work programme and request the Secretary General to take appropriate actions, which should include addressing this through the Safety Management Capacity Building Workshops being delivered in 2019 and incorporate in ICAO SSP course.</p> <p>j): Approve, include in the AN work programme and request the Secretary General to take appropriate actions, which should include delivering workshops and training courses to raise awareness and promote uniform approaches by States for</p>

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<p>k) encourage States to use the ICAO Safety Management Implementation website as an information sharing platform to facilitate the exchange of experience in regional data sharing among regional groups; and</p> <p>l) support regional mechanisms and platforms that enable States and industry stakeholders to share and align safety priorities in support of the RASGs.</p> <p><b>Recommendation 7.1/2 — Standardized risk-based decision making policies and best practices for validation of foreign products</b></p> <p>That States:</p> <p>a) support ICAO’s work, through the appropriate group of experts to determine the need for developing new materials to support further reduction in duplicated certification activity, by conducting a feasibility study for developing common standards and recommended best practices for recognizing the capabilities of States of Design (SoD) certification systems (including design approvals/design organization</p>	<p>a) and b): Approve and request the Secretary General to bring to the attention of States.</p>	<p>sharing of safety data.</p> <p>k): Approve, include in the AN work programme and request the Secretary General to take appropriate actions, which should include continuing to highlight the use of the ICAO Safety Management Implementation (SMI) website for the sharing and exchange of practical examples and experience in briefings and working papers to be presented at RASG and PIRG meetings.</p> <p>l): Approve, include in the AN work programme and request the Secretary General to take appropriate actions, which should include continuing to provide data, indicators and analysis tools that would allow States and participating industry stakeholders to identify and highlight their safety priorities and align them with RASG goals and targets.</p> <p>a) and b): Note.</p>

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<p>recognition);</p> <p>b) support the development of ICAO Standards and Recommended Practices (SARPs), guidance material and manuals that Member States use to issue certificates for products, and complement them with guidance for best practices in conducting validation activities;</p> <p>That ICAO:</p> <p>c) continue to encourage the reduction of duplicate certification action conducted by Member States that offers no commensurate increase in safety; and</p> <p>d) review and develop materials for inclusion in the <i>Airworthiness Manual</i> (Doc 9760), <i>Safety Management Manual (SMM)</i> (Doc 9859), Annex 8 — <i>Airworthiness of Aircraft</i> and/or Annex 19 — <i>Safety Management</i>, for States of Registry (SoR) to determine the appropriate level of involvement in validation/recognition principles for States of Design (SoD) approvals.</p> <p><b>Recommendation 7.2/1 — Strengthening RSOOs</b></p> <p>That States:</p> <p>a) further support the strengthening of regional safety oversight organizations (RSOOs) by engaging actively in the development of their RSOOs, by securing adequate and sustainable RSOO funding mechanisms, and, as appropriate,</p>	<p>c) and d): Note.</p> <p>a): Approve and request the Secretary General to bring to the attention of States.</p>	<p>c) and d): Approve, and continue monitoring the on-going work. Request the Secretary General to take appropriate actions, which should include continuing to support the work of the Airworthiness panel (AIRP) in determining the need for and the development of new materials to support further reduction in duplicative certification activity.</p> <p>a): Note.</p>





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<p><b>Recommendation 7.3/1 — ICAO implementation strategies</b></p> <p>That ICAO:</p> <p>a) strengthen the linkage between the Global Air Navigation Plan (GANP), the Global Aviation Safety Plan (GASP) and the Global Aviation Security Plan (GASeP) to achieve an integrated implementation approach;</p> <p>b) take into account implementation support needs when developing provisions;</p> <p>c) support better alignment and harmonization between planning and implementation regional groups (PIRGs) and regional aviation safety groups (RASGs) while maintaining the safety framework of the RASGs through consultation with Member States;</p> <p>d) further improve the PIRG and RASG mechanisms to enhance the coordination and alignment of implementation between regions;</p> <p>e) consider the development of a global collaboration mechanism to facilitate interregional alignment, harmonization, and sharing of best practices and lessons learned;</p> <p>f) support the development of a flexible, progressive and risk-based strategy to improve global implementation of Standards and Recommended Practices (SARPs);</p>	<p>a) to e): Approve, and request the Secretary General to take appropriate action.</p> <p>f) to h): Note.</p>	<p>a): Note and request the Secretary General to take the appropriate actions, including the establishment of a mechanism for the strengthening of the relationship between the Global plans.</p> <p>b): Note and request the Secretary General to take the appropriate actions related to supporting the development of implementation working packages.</p> <p>c) and d) : Note and request the Secretary General to take the appropriate actions related to continuing the development of new terms of references (TORs) for PIRGs and RASGs.</p> <p>e): Note and request the Secretary General to take the appropriate actions related to conducting a global forum on PIRGs and RASGs regularly.</p> <p>f)): Approve, include in the AN work programme and request the Secretary General to take appropriate actions to explore alternatives to improve and create more awareness of the Standard making process and adoption of Standards.</p>

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<p>g) request an appropriate group of experts to further review and explore a process that would facilitate short-term (successive) aircraft interchange operations; and</p> <p>h) further develop risk management capabilities and facilitate implementation of multilateral arrangements for the sharing of risk information and (regional) contingency planning related with civil aircraft operations over or near conflict zones.</p> <p><b>Recommendation 7.3/2 — Aviation Safety Implementation Assistance Partnership (ASIAP)</b></p> <p>That ICAO:</p> <p>a) continue to develop the prioritization of States and areas of technical assistance criteria in order to achieve appropriate and transparent prioritization;</p> <p>That ASIAP Partners:</p> <p>b) strive for greater commitment to, and participation in, the Aviation Safety Implementation Assistance Partnership (ASIAP) Programme, and invite other States and international organizations that can provide technical assistance to States to join ASIAP;</p>	<p>a): Note.</p> <p>b) to e): Approve, and request the Secretary General to take appropriate action</p>	<p>g): Approve, include in the AN work programme and request the Secretary General to take the appropriate actions related to supporting updates to the work items of the Flight OPS Panel, as required.</p> <p>h): Approve, include in the AN work programme and request the Secretary General to take the appropriate actions related to supporting the development of risk management capabilities and facilitate implementation of multilateral arrangements for the sharing of risk information and (regional) contingency planning related with civil aircraft operations over or near conflict zones.</p> <p>a): Approve, include in the AN work programme and request the Secretary General to take appropriate action.</p> <p>b): Note and request the Secretary General to take the appropriate actions related to continuing the development of partnerships.</p>

RECOMMENDATIONS ADOPTED BY AN-CONE/13	SUGGESTED FOLLOW-UP ACTION	
	COUNCIL	AIR NAVIGATION COMMISSION (ANC)
<p>c) and other stakeholders providing technical assistance (including States, regional safety oversight organizations (RSOOs), international organizations, industry and financial institutions) coordinate their technical assistance activities and make use of the online Project Database (<a href="https://www.icao.int/safety/ASIAP/Pages/Tools.aspx">https://www.icao.int/safety/ASIAP/Pages/Tools.aspx</a>) in order to reduce duplication of activities and effort;</p> <p>d) apply the Project Outcome Indicators (POIs) to their projects and review the measurable results in coordination with each other; and</p> <p>e) including ICAO, States, international organizations, industry and financial institutions provide funding to support technical assistance activities.</p> <p><b>Recommendation 7.3/3 — State national planning framework</b></p> <p>That States:</p> <p>a) reaffirm support for the fundamental roles and responsibilities of Contracting States, Council and the Air Navigation Commission, as provided in the Convention on International Civil Aviation (Doc 7300), for the development of quality and timely Standards and Recommended Practices (SARPs);</p> <p>b) enhance their involvement in all stages of the provision development process and encourage RSOOs and other aviation stakeholders to do the same;</p>	<p>a) to d): Approve, and request the Secretary General to take appropriate action.</p>	<p>c): Note and request the Secretary General to take the appropriate actions related to coordinating the sharing of assistance information using a common platform.</p> <p>d): Note and request the Secretary General to take the appropriate actions related to continuing to apply the POIs to ICAO projects under ASIAP.</p> <p>e): Note and request the Secretary General to take the appropriate actions related to continuing to facilitate coordination and cooperation amongst stakeholders, on funding possibilities.</p> <p>a) to d): Note.</p>

RECOMMENDATIONS ADOPTED BY AN-CONF/13	SUGGESTED FOLLOW-UP ACTION	
	COUNCIL	AIR NAVIGATION COMMISSION (ANC)
<p>c) support the ICAO Next Generation of Aviation Professionals (NGAP) Programme in light of the international need to address the existing aviation personnel shortages and to ensure a competent workforce capable of meeting the needs and challenges of the global aviation community into the future; and</p> <p>d) share best practices on applied strategies to promote more productive recruitment, training and education, development and retention programmes.</p> <p><b>Recommendation 7.3/4 — Regional office resources for implementation activities</b></p> <p>That ICAO:</p> <p>a) give due consideration in the allocation of resources to regional offices for the support of implementation activities;</p> <p>b) recognize, and take appropriate measures to address, the particular challenges and growing workload of the Asia Pacific (APAC) Region; and</p> <p>c) support the APAC Region in the implementation of the Beijing Declaration and progress towards ICAO global targets.</p>	<p>a) to c): Approve and request the Secretary General to take appropriate action.</p>	<p>a) to c): Note and request the Secretary General to take the appropriate actions related to studying and giving due consideration to the needs for additional regional office resources</p>

RECOMMENDATIONS ADOPTED BY AN-CONF/13	SUGGESTED FOLLOW-UP ACTION	
	COUNCIL	AIR NAVIGATION COMMISSION (ANC)
<p><b>Recommendation 7.3/5 — Support for the continuation of the Comprehensive Regional Implementation Plan for Aviation Safety in Africa (AFI Plan)</b></p> <p>That States:</p> <p>a) support the continuation of AFI Plan activities and the project-based approach;</p> <p>b) request ICAO, international organizations and industry partners to support the AFI Plan and its associated projects;</p> <p>c) consider adopting an approach similar to the AFI Plan to address safety deficiencies and challenges in their region; and</p> <p>That ICAO:</p> <p>d) extend the AFI Plan in order to enable it to accomplish its objectives.</p>	<p>a) to d): Approve, and request the Secretary General to take appropriate action.</p>	<p>a) to c): Note.</p> <p>d): Note and request the Secretary General to take the appropriate actions related to integrating the requirements for the AFI Plan in close cooperation with the AFI Plan Steering</p>

**Agenda Item 8: Emerging safety issues — 8.1: Measures to proactively address emerging issues; and 8.2: Emerging safety issues**

<p><b>Recommendation 8.1/1 — Measures to proactively address emerging issues</b></p> <p>That ICAO:</p> <p>a) raise awareness and inform States of existing guidance on identifying and addressing emerging safety issues, including mitigation actions and balancing the integrated management of distinct risks (existing/emerging);</p> <p>b) urge the regional aviation safety groups (RASGs)</p>	<p>a) to i), except b) and c): Note programme and request the Secretary General to take appropriate actions, which should include developing a website on emerging safety issues.</p> <p>b) and c): Approve, and request the Secretary</p>	<p>a): Approve, include in the AN work</p> <p>b) and c): Note.</p>
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RECOMMENDATIONS ADOPTED BY AN-CONF/13	SUGGESTED FOLLOW-UP ACTION	
	COUNCIL	AIR NAVIGATION COMMISSION (ANC)
<p>or other regional organizations, including regional safety oversight organizations (RSOOs), to institute a process for addressing emerging safety issues based on a data-driven analysis;</p> <p>c) urge States, regional entities and industry to participate actively in regional and sub regional studies on emerging safety issues conducted by the RASGs;</p> <p>d) urge States, regional entities and industry to share information on emerging safety issues with other States and ICAO through the dedicated website;</p> <p>e) systematically collect information from States and regional organizations, for the purpose of assessing and monitoring their global safety impact, on the following: new concepts of operations and new technologies; new risk management concepts and methods for coping with the dynamics and complexity of the aviation system; as well as the initial implementation of such new concepts, methods and technologies;</p> <p>f) establish a holistic, performance-based process for the development of ICAO provisions in response to these emerging issues and risks to assess if the established provisions achieve the objectives for which they were designed;</p> <p>g) provide guidance for the implementation of risk and performance-based assessment and oversight at both State and regional levels;</p>	<p>General to take appropriate action.</p>	<p>d) and e): Approve, include in the AN work programme and request the Secretary General to take appropriate actions.</p> <p>f): Approve, include in the AN work programme and request the Secretary General to take appropriate actions, which should include developing a holistic, performance-based process for the development of ICAO provisions.</p> <p>g): Approve, include in the AN work programme and request the Secretary General to take appropriate actions, which should include developing guidance for the implementation of risk and performance- based assessment and oversight.</p>

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	COUNCIL	AIR NAVIGATION COMMISSION (ANC)
<p>h) provide a global, inclusive civil-military cooperation mechanism to move from a reactive situation to a proactive one by applying predictive, holistic risk management to emerging issues; and</p> <p>i) based on data from regional aviation safety groups and risk analysis, consider developing a study on the subject of objects falling from aeroplanes and guidance material on preventive measures.</p> <p><b>Recommendation 8.2/1 — Remotely piloted aircraft systems (RPAS) operations</b></p> <p>That ICAO continue developing Standards and Recommended Practices (SARPs), Procedures for Air Navigation Services (PANS) and guidance material to support safe remotely piloted aircraft systems (RPAS) operations, and continue facilitating implementation of RPAS related provisions through regional training activities.</p> <p><b>Recommendation 8.2/2 — Medical Standard for pilots of light aircraft</b></p> <p>That ICAO:</p> <p>a) review national medical certification protocols currently used by a number of States in order to identify commonalities; and</p>	<p>Note.</p> <p>a) and b): Note.</p>	<p>h): Approve, include in the AN work programme and request the Secretary General to take appropriate actions, which should include developing a global mechanism for proactive application of holistic risk management to emerging issues.</p> <p>i): Approve, include in the AN work programme and request the Secretary General to take appropriate actions, which should include performing a study on objects falling from aeroplanes, and the relevant guidance material on preventive measures.</p> <p>Approve, and continue to monitor the progress of the existing item in the AN work programme.</p> <p>a) and b): Approve, include in the AN work programme and request the Secretary General to take appropriate actions, which should include tasking an expert group such as the MSPG with the review and, based on the outcome, to propose a Standard for pilots flying light aircraft.</p>

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	COUNCIL	AIR NAVIGATION COMMISSION (ANC)
b) based on this review of commonalities among the various States' national medical certification protocols, develop a Standard specifically addressing pilots flying light aircraft.		

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