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Global updates and main outcome of A40 relevant to ATM And SAR

Elie El Khoury

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ATM SG/5 (Aqaba, Jordan, 1-4 December 2019)



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Outline

- ICAO Global Events
- ICAO Documents
- Coming soon
- 40th Session of ICAO Assembly



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Global ICAO Events related to ATM and SAR (2017 – 2019)

- RPAS/2 Symposium (Montreal, Canada, 19-21 September 2017)
- ICAO ATFM Global Symposium 2017 (Singapore, 20-22 November 2017)
- GANIS/2 and SANIS/1 (Montreal, Canada, 11-15 December 2017)
- ICAO APAC/MID Regional Safety Management Symposium (Singapore, 23-26 April 2018)
- ICAO EUR/MID/AFI Cybersecurity in Civil Aviation (Bucharest, Romania, 7-9 May 2018)
- RPAS/3 and Drone Enable/2 Symposiums (Chengdu, China, 10-14 September 2018)
- ICAO Thirteenth Air Navigation Conference (Montreal, Canada, 9-19 October 2018)
- 40th Session of the ICAO Assembly (Montreal, Canada, 24 September to 4 October 2019)
- Drone Enable, ICAO's Third Unmanned Aircraft Systems Industry Symposium (Drone Enable/3) (Montreal, Canada, 12 - 14 November 2019)



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New ICAO Documents in support of ATM and SAR

- Doc 9971 - Manual on Collaborative Air Traffic Flow Management (Published)
- Doc 10084 - Civil Aircraft Operations Over Conflict Zones (Published/under review)
- Doc 10056- Manual on Air Traffic Controller (Published Sep. 2017)
- Doc 10063 - Manual on Monitoring the Application of Performance-based Horizontal Separation Minima (Published 2017)
- Doc 10019 - Manual on Remotely Piloted Aircraft Systems (RPAS) (AMDT)
- Doc 10056 - Competency-based Training and Assessment (Published 2017)
- Doc 10037 - Global Operational Data Link (GOLD) Manual (Published in 2017)



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New ICAO Documents in support of ATM and SAR

- Doc 10088 - Manual on Civil/Military Cooperation (will be published soon)
- Doc 9731 - IAMSAR Manual volumes I, II, III (AMDT in 2019)
- Doc 9869 - PBCS Manual (AMDT)
- Doc 10039 - SWIM Manual (update in 2019)
- Doc (New) - TBO Concept (in 2019)
- Doc 9432 - Manual of Radiotelephony (AMDT 2020)
- Doc 9965 - Flight and Flow — Information for a Collaborative Environment (AMDT 2020)



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Highlight on some
provisions coming
soon





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Doc 4444 – PANS ATM (Nov 2020)

- Wake Turbulence
- Reduced separation minima,
- Special procedures for in-flight contingencies in oceanic airspace; and
- Strategic lateral offset procedures (SLOP).



Doc 4444 – PANS ATM (Nov 2020)

Wake Turbulence

4.9.1 Wake turbulence categories of aircraft

SUPER (J) — aircraft types specified as such in ICAO Doc 8643, *Aircraft Type Designators*

HEAVY (H) — all aircraft types of 136 000 kg or more, with the exception of aircraft types listed in Doc 8643 in the SUPER (J) category;

MEDIUM (M) — aircraft types less than 136 000 kg but more than 7 000 kg; and

LIGHT (L) — aircraft types of 7 000 kg or less.





Doc 4444 – PANS ATM (Nov 2020)

Wake Turbulence

- GROUP A — aircraft types of 136 000 kg or more, and a wing span less than or equal to 80 m but greater than 74.68 m
- GROUP B — aircraft types of 136 000 kg or more, and a wing span less than or equal to 74.68 m but greater than 53.34 m
- GROUP C — aircraft types of 136 000 kg or more, and a wing span less than or equal to 53.34 m but greater than 38.1 m
- GROUP D — aircraft types less than 136 000 kg but more than 18 600 kg, and a wing span greater than 32 m
- GROUP E — aircraft types less than 136 000 kg but more than 18 600 kg, and a wing span less than or equal to 32 m but greater than 27.43 m
- GROUP F — aircraft types less than 136 000 kg but more than 18 600 kg, and a wing span less than or equal to 27.43 m
- GROUP G — aircraft types of 18 600 kg or less (without wing span criterion).

Note.

- *Time-based wake turbulence separation minima is applied when using the wake turbulence groups.*
- *Guidance on the implementation of wake turbulence separation between wake turbulence groups can be found in the Manual on Implementation of Wake Turbulence Separation Minima (Doc 10122).*



Doc 4444 – PANS ATM (Nov 2020)

Wake Turbulence

4.11.3 Radiotelephony procedures for air-ground voice communication channel changeover

When so prescribed by the appropriate ATS authority, the initial call to an ATC unit after a change of air-ground voice communication channel shall contain the following elements:

- a) designation of the station being called;
- b) call sign and, for aircraft in the **SUPER** and **HEAVY** wake turbulence categories, the word “**super**” or “**heavy**” respectively;
- c) level, including passing and cleared levels if not maintaining the cleared level;
- d) speed, if assigned by ATC; and
- e) additional elements, as required by the appropriate ATS authority.



Doc 4444 – PANS ATM (Nov 2020)

Wake Turbulence

5.8.1 Applicability

5.8.1.1 The ATC unit concerned **shall not** be required to apply wake turbulence separation:

- a) for arriving **VFR** flights landing on the same runway as a **preceding** landing SUPER, HEAVY or MEDIUM aircraft; and
- b) between arriving **IFR flights** executing **visual approach** when the aircraft has **reported** the preceding aircraft in sight and has been instructed to follow and maintain **own separation** from that aircraft.



Doc 4444 – PANS ATM (Nov 2020)

Wake Turbulence

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Doc 4444 – PANS ATM (Nov 2020)

Wake Turbulence

5.8.2 Arriving aircraft

HEAVY aircraft landing behind **SUPER** aircraft — 2 minutes;

MEDIUM aircraft landing behind **SUPER** aircraft — 3 minutes;

MEDIUM aircraft landing behind **HEAVY** aircraft — 2 minutes;

LIGHT aircraft landing behind **SUPER** aircraft — 4 minutes;

LIGHT aircraft landing behind a **HEAVY** or **MEDIUM** aircraft — 3 minutes.



Doc 4444 – PANS ATM (Nov 2020)

Wake Turbulence

5.8.3 Departing aircraft

when the aircraft are using:

- a) the same runway (see Figure 5-42);
- b) parallel runways separated by less than 760 m (2 500 ft) (see Figure 5-42);
- c) crossing runways if the projected flight path of the second aircraft will cross the projected flight path of the first aircraft at the same altitude or less than 300 m (1 000 ft) below (see Figure 5-43);
- d) parallel runways separated by 760 m (2 500 ft) or more, if the projected flight path of the second aircraft will cross the projected flight path of the first aircraft at the same altitude or less than 300 m (1 000 ft) below (see Figure 5-43)



Doc 4444 – PANS ATM (Nov 2020)

Wake Turbulence

5.8.3 Departing aircraft

HEAVY aircraft taking off behind a **SUPER** aircraft — 2 minutes;

LIGHT or **MEDIUM** aircraft taking off behind a **SUPER** aircraft — 3 minutes;

LIGHT or **MEDIUM** aircraft taking off behind a **HEAVY** aircraft — 2 minutes;

LIGHT aircraft taking off behind a **MEDIUM** aircraft — 2 minutes.



Doc 4444 – PANS ATM (Nov 2020)

Wake Turbulence

8.7.3 Separation minima based on ATS surveillance systems

<i>Preceding aircraft</i>	<i>Succeeding aircraft</i>	<i>Distance-based wake turbulence separation minima</i>
SUPER	HEAVY MEDIUM LIGHT	5.0 NM 7.0 NM 8.0 NM
HEAVY	HEAVY MEDIUM LIGHT	4.0 NM 5.0 NM 6.0 NM
MEDIUM	LIGHT	5.0 NM



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Amendments to Annexes 11 and 15 (Nov 2020)

Related to contingency planning regarding conflict zones





Annexes 11 (Nov 2020)

The appropriate **ATS authority** shall ensure that a **safety risk assessment** is conducted, as soon as practicable, for activities potentially hazardous to civil aircraft and that appropriate risk mitigation measures are implemented.

Note 1.— Such risk mitigation measures may include, but would not be limited to, airspace restriction or temporary withdrawal of established ATS routes or portions thereof.

Note 2.— Guidance on safety risk management can be found in the Safety Management Manual (SMM) (Doc 9859).

2.19.3.1 States **shall establish procedures** to enable the organization or unit conducting or identifying **activities potentially hazardous** to civil aircraft to contribute to the **safety risk assessment** in order to facilitate consideration of all relevant safety-significant factors.

Note.— Guidance on collaborative decision making (CDM) processes for safety assessment and promulgation through NOTAM that could involve military authorities can be found in the Operations (Doc 9554) . Manual Concerning Safety Measures Relating to Military Activities Potentially Hazardous to Civil Aircraft



Annexes 15 (Nov 2020)

6.3.2 NOTAM

6.3.2.3 A NOTAM shall be originated and issued concerning the following information:

m) presence of hazards **outside promulgated sites** which affect air navigation (including obstacles, military exercises, displays, fireworks, sky lanterns, rocket debris, races and major parachuting events outside promulgated sites);

n) **conflict zones which affect air navigation** (to include information that is as specific as possible regarding the nature and extent of threats of that conflict and its consequences for civil aviation);

Note.— Guidance related to conflict zones is contained in the Risk Assessment Manual for Civil Aircraft Operations Over or Near Conflict Zones (Doc 10084).



Update IAMSAR Manual (2019)

- Additional guidance on
 - Multiple aircraft SAR operations
 - Mass rescue Operations (MRO)
 - Use of cell phone localization capabilities in location operations
 - Updated self assessment questionnaire on SAR
 - SAR in areas remote from SAR facilities
 - Medical guidance and medical information exchanges
 - Global Aeronautical Distress and Safety System



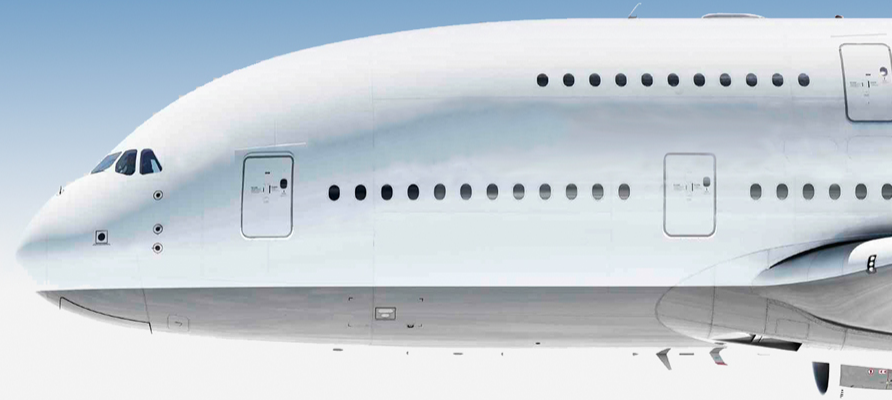
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Main outcomes from the 40th Session of the Assembly





A40 Attendance

DELEGATIONS	
Member States	184
Observer Delegations	55
Total	239

DELEGATES	
Member States	2015
Observer Delegations	387
Special Guest	1

MEDIA/PRESS	
MEDIA/PRESS	23
Total	2426



24 September – 4 October 2019
Montreal, Canada



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ANB - Agenda items

- Item 13: Audit Programmes - Continuous Monitoring Approach
- Item 20: No Country Left Behind Initiative
- Item 23: Technical Assistance Programme
- Item 25: ICAO Civil Aviation Training and Capacity Building
- Item 26: Other high-level policy issues to be considered by the Executive Committee
- Item 27: Annual Reports of the Council to the Assembly for 2016, 2017 and 2018
- Item 28: Aviation Safety and Air Navigation Policy
- Item 29: Aviation Safety and Air Navigation Regional Implementation Coordination Mechanisms
- Item 30: Other Issues to be considered by the Technical Commission



ANB – Main Outcomes from A40

- Endorsement of the GANP and the use of GANP Portal also the ongoing efforts to implement the Plan;
- Endorsement of the GASP 2020-2022 and ongoing efforts to implement the Plan;
- Reviewed the new PIRGs/RASGs TORs and agreed to amend TOR with meeting/reporting cycle to be annually;
- Long-term evolution of the Universal Safety Oversight Audit Programme (USOAP) Continuous Monitoring Approach (CMA) programme, in line with the recommendations of the GEUSR as agreed by the Council and the AN-Conf/13);
- Resolution on “New Entrants” that refers to higher airspace and unmanned aircraft system (UAS) traffic management (UTM) operations; and
- Urgently consider the establishment of a high-level body with the industry to regularly provide strategic advice to the Council concerning innovation in aviation;



ANB - Resolutions Adopted at A40

- A40-1: ICAO global planning for safety and air navigation.
- A40-2: Protection of accident and incident investigation records.
- A40-3: Protection of safety data and safety information collected for maintaining or improving safety and of flight recorder recordings in normal operations.
- A40-4: Consolidated statement of continuing ICAO policies and associated practices related specifically to air navigation.
- A40-5: Regional implementation support mechanisms.
- A40-6: Regional cooperation and assistance to resolve safety deficiencies, establishing priorities and setting measurable targets.
- A40-7: New entrants.



ANB - Resolutions Adopted at A40

- A40-8: Global provisions for design, certification and operations of water aerodromes.
- A40-10: Addressing Cybersecurity in Civil Aviation.
- A40-13: The Universal Safety Oversight Audit Programme (USOAP) Continuous Monitoring Approach (CMA)
- A40-14: Mitigation of the spread of disease through, inter alia, aircraft disinsection and vector control methods, and the importance of CAPSCA (Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation) for implementation.
- A40-26: Commercial space transport (CST).
- A40-27: Innovation in aviation.



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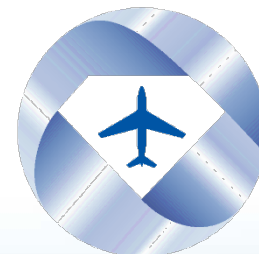
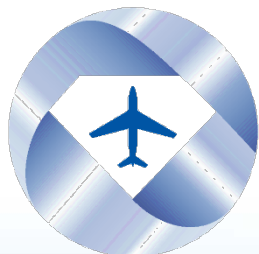
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