

INTERNATIONAL FEDERATION OF AIR TRAFFIC CONTROLLERS' ASSOCIATIONS

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Agenda item: B.4.1.8 INFORMATION PAPER WP No:82 IFATCA'25

Report of the IFATCA Representative on the ICAO Remotely Piloted Aircraft Systems Panel (RPASP)

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SUMMARY

Report on the activities of the IFATCA Representative on the ICAO Remotely Piloted Aircraft Systems Panel (RPASP).

1. INTRODUCTION

- 1.1. This information paper summarises the activities of the IFATCA Representative on the ICAO Remotely Piloted Aircraft Systems Panel (RPASP). Specifically, it refers to RPASP/WGWHL2 (21-25 October 2024, Montreal, Canada) and the preparatory activities for RPASP/WGWHL3 (17-21 March 2025, Montreal, Canada).
- 1.2. The RPASP is developing and amending Standard and Recommended Practices (SARPs) to integrate international IFR RPAS operations into the ATM environment.
- 1.3. ICAO has decided to postpone the applicability date of SARPs related to RPAS from November 2026 to November 2028 to provide a more complete and clearer regulatory framework. To ensure this, a task force (called "Tiger Team" see 2.4) was created with the aim of performing consistency check on all developed materials and to perform stress-test to reduce the possibility of the regulations being incomplete or unclear. IFATCA is leading the Stress Test activities.
- 1.4. A heartfelt thanks to Mrs Sylvie Lemay, Mr Christoph Gilgen, and Mr Nicholus Siele for their hard and continuous work and support. Thanks also to the former and present IFATCA Liaison Officer to the ICAO Air Navigation Commission Mr. Jean-François Lepage and Mr David Perks for supporting the proposed resolutions and actions at the ICAO ANC level.

2. DISCUSSION

2.1. This paper will only report the main elements and events that occurred during the period covered by the report. To have full details and understanding of all topics, readers are kindly invited to refer to the full reports available or to contact eugenio.diotalevi@ifatca.org.

- 2.2. RPASP scope and structure
- 2.2.1. The Remotely Piloted Aircraft Systems Panel (RPASP) coordinates and develops ICAO Standards and Recommended Practices (SARPs). Procedures and Guidance material for remotely piloted aircraft systems (RPAS), to facilitate safe, secure, and efficient integration of remotely piloted aircraft (RPA) into non-segregated airspace and aerodromes. The RPASP, in collaboration with other ICAO expert groups, undertakes specific studies and subsequently develops provisions to facilitate the safe, secure and efficient integration of RPA into non-segregated airspace and aerodromes while maintaining the existing level of safety for manned aviation. The panel which is part of ICAO's voluntary workforce, is composed of experts, nominated by States and international organizations. The RPASP coordinates their work with the various groups of experts responsible for other Annexes and disciplines, as appropriate (e.g. Airworthiness Panel (AIRP), Communications Panel (CP), Surveillance Panel (SP), Air Traffic Management Operations Panel (ATMOPSP) Flight Operations Panel (FLTOPSP), Flight Recorder Working Group (FLIREC-WG), Dangerous Goods Panel (DGP), Safety Management Panel (SMP), Aerodrome Design and Operations Panel (ADOP), Accident Investigation (AIGP)). These collaborative efforts extend beyond panels of the Air Navigation Commission (ANC) to include the Legal Committee, Committee on Aviation Environmental Protection (CAEP), Aviation Security Panel (AVSECP), Air Navigation Services Economics Panel (ANSEP) and the Aerodromes Economics Panel (AEP), Advance Air Mobility Study Group.
- 2.2.2. The RPASP meets twice a year, in the form of a Panel or as a Working Group of the Whole, with the following schedule:

RPASP Meeting	Date	WP/IP Deadline
RPASP/23	18-22 March 2024	16 February 2024
PASP-WGWHL/3	17-21 March 2025	21 February 2025
RPASP/24	20-24 October 2025	26 September 2025
RPASP-WGWHL/4	16-20 March 2026	20 February 2026

2.2.3. The RPASP is composed by working groups (WGs), task forces (TFs), ad hoc working groups (AHWGs) and, due to the cross-panel nature of RPAS, joint task forces (JTFs). The detailed structure and IFATCA's participation are reported in the following table:

	Name	IFATCA member
WG1	Airworthiness	
WG2	C2 Link	Eugenio Diotalevi, Sylvie Lemay

WG3	Detect and Avoid	Christoph Gilgen, Nicholus Siele
WG4	Personnel Licensing	
WG5	RPAS Operations	
WG6	ATM Integration	Eugenio Diotalevi, Sylvie Lemay
WG7	Human In The System	
WG8	RPAS Manual	
AHWG-A	Ad Hoc Working Group on Assumptions	Eugenio Diotalevi
AHWG-OSP	Ad Hoc Working Group on Oversight Of Service Provision	
RA-JTF	RPASP and ATMOPSP Joint Task Force	Eugenio Diotalevi, Rick Taylor (ATMOPSP, co- rapporteur of the RA-JTF)
RLP-TF	Required Link Performance Task Force	Eugenio Diotalevi
RPASP/SMP- JTF	RPASP and SMP Joint Task Force	Eugenio Diotalevi
RPASP/ADOP- JTF	RPASP and ADOP Joint Task Force	Nicholus Siele
RPASPTF-I	RPASP Interception Task Force	Eugenio Diotalevi (co- rapporteur TF-I)
TT -AFSTG	Tiger Team – Assurance Framework Stress Test Group	Eugenio Diotalevi (rapporteur)

2.3. <u>IFATCA proposal for a global change management assessment</u>

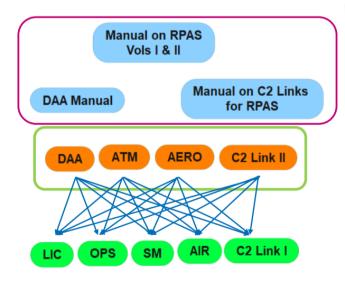
2.3.1. At RPASP19, IFATCA proposed WP/6 "Facilitation of a global, system-wide, change management assessment to support the safe and efficient integration of RPAS into the aviation operational environment". It was (and it is) the IFATCA RPASP representative's opinion that States and service providers would take advantage of assessing any aviation system changes prior to adopting SARPs. The paper was in general well received and the panel agreed to create a dedicated expert group (AHWG-A Ad Hoc Working Group on Assumptions) to assess and analyse possible gaps between the RPAS-related SARPs/PANS and the RPAS Panel assumptions. The

RPASP Assumptions' gap analysis work took about 9 months and results were presented at RPASP 21 (13-17 March 2023) with WP/5. Several changes have been made to the original Assumptions list, some major and several minor. This is to confirm that IFATCA's concerns about possible deviations from that list were concrete. In endorsing the conclusions of WP/5, IFATCA recommended the Assumptions review process become structural to the Panel's working activities and the Panel agreed on that. Unfortunately, this process has never been adopted: for this reason, as part of the recommendations provided by the Tiger Team — Assurance Framework Stress Test Group, the activity will be restarted and completed by RPASP/24 (October 2025).

- 2.3.2. As a way forward to the global, system-wide, change management assessment, at RPASP/22 IFATCA and Israel presented WP/3 -"Multidimensional matrix to facilitate a system-wide overarching change management assessment supporting the safe and efficient integration of RPAS into the operational environment". The scope of the proposed matrix was to propose a standardized method capable, on the one hand, of verifying the absence of gaps within and the consistency of all SARPs developed for RPAS and, on the other hand, of providing guidance to States for the implementation of RPASP operations (the Multidimensional matrix is available in Appendix I to this IP). Despite highlighting the absolute necessity to perform such exercises. RPASP Members were cautious about addressing WP/3 because of uncertainties related to the workload connected to the matrix. On the contrary, the paper was very well received by the ICAO Safety Management Panel Chief who was attending the discussion and proposed to support IFATCA in improving the proposed matrix and insress searching for alternative safety methodologies to conduct the analysis. As a conclusion of the discussion, the Panel asked IFATCA to liaise with the ICAO SMP to validate the matrix and, as an alternative, to provide different methodologies to continue the management of change process.
- 2.3.3. Via the RPASP/SMP-JTF (RPASP and SMP Joint Task Force) IFATCA presented the methodology with IP/08 at the SMP/WGs/8 meeting. It was considered "innovative and appropriate with regard to the dimension and impact of the RPAS introduction in the long run" and the SMP was in general supportive of the idea of further developing the methodology.
- 2.3.4. Considering results from the SMP consultation, IFATCA has drafted a new working paper for RPASP/23 (WP/9) proposing, in coordination with the ICAO SMP Secretariat, the creation of dedicated working groups to conduct hazards analysis and to draft guidance materials. Unfortunately, it was Panel's opinion that these activities might fall out of the mandate of the Panel and that, due the scarce workforce, such activities might have distract the Panel form more urgent activities. However, the ICAO Secretariat has coordinated with both the SMP and the ANC to have further information on the way forward. Results are not delivered yet

2.4. Assurance Framework

- 2.4.1. At RPAS/23, the RPASP Chair recognised a lack in project management: materials are still under development (SARPs & PANS & GM on ATM, DAA, C2 Link II, Aerodromes, Manual on RPAS, DAA Manual, Manual on C2 Links for RPAS) and it was recognised the need for a snapshot of the current position of all materials (provisions and manuals) that have not been endorsed yet (to be completed by co-rapporteurs).
- 2.4.2. The conclusion is that the 2026 deadline is no longer feasible, and the new date (2028) requires all materials to be ready by October 2025. Usually, SARPs take 3 years from delivery to get through ANC/Council processes.
- 2.4.3. IFATCA has always been very critical on the global harmonisation of all provisions developed by the Panel. Despite the potential of the actions proposed by IFATCA in all the above-mentioned WPs related to the change and safety management have been somehow defused, it has become clear to everybody that actions were needed to ensure completeness and applicability of all materials delivered. For this reason, IFATCA has favourably welcomed the decision from the Panel to develop an Assurance Framework ensuring integration and cohesiveness of all packages (as a whole). Activities performed are:
 - Vertical Consistency: ensuring the topic/Annex specific work aligns with foundational packages (Annexes 1, 6, 8, 10)
 - Horizontal Consistency: consistency between remaining packages (ATM, DAA, C2 Link, Aerodrome) → IFATCA involved.
 - Stress test: to ensure completeness and understandability of concepts.



Packages include SARPs & PANS:

- Horizontal: ATM-C2 II-DAAaerodromes coherent amongst each other
- Vertical: ATM-C2 II-DAA-Aerodromes should be coherent with the basic blocks (LIC-OPS-SM-AIR-C2 I)
- Manuals information must also be consistent
- 2.4.4. IFATCA Member has been asked to lead the Stress Test Activity and, as a result, RPASP/WGWHL-3/WP11 has been produced. Weekly meetings have been held and results have identified some items requiring further

developed or clarification. Most of them are minor items. However, the task was not performed as a safety analysis on the materials but, on request from ICAO Secretariat, as a tabletop exercise without questioning the effective safety of the provision developed but only checking the applicability and possible gaps on regulations.

2.5. C2 Link Manuals

2.5.1. Manuals on C2 Link has been proposed at RPASP/WGWHL2 and, after adjudication of over 350 comments, the revised version will be presented at the RPASP/WGWHL4 for the final approval. IFATCA has submitted 23 comments (plus a number of online and in-person discussions): 2 has been rejected, 16 has been accepted and other 5 are pending waiting for the development of the RLP concept. These comments try to ensure that the additional node created by the relay of ATC communications via the RPA will not degrade the safety of the airspace and the provision of ATS by ATCOs.

2.6. DAA Manuals

2.6.1. Manual on DAA has been presented and endorsed at RPASP/23. Despite the approval, there are a series of items related to C2 Link which are not completely developed, and the ICAO Secretariat has expressed numerous comments. Those comments have been assessed by WG3 that will present a new version at RPASP/WGWHL-3. Updates will be provided during the conference.

2.7. RLP-TF (Required Link Performance Task Force)

- 2.7.1. The Required Link Performance concept is the basic concept on which the C2 link has been developed so far by the WG2. The RLP expresses the safety parameters State Competent Authority requires to be met by the RPAS Operator for operations in specific portions of airspace. IFATCA represents RPASP WG6 (ATM integration) in the RLP-TF.
- 2.7.2. The RLP-TF has met regularly with a total of more than 25 meetings since March 2024. IFATCA is involved in all activities, including the RLP Stresstest Group which is dealing with the development of RLP use cases and parameters.
- 2.7.3. After reaching consensus on 4 principles governing the RLP concept related to the Target Level of Safety of the airspace and the possibility of using telecommunication parameters (i.e. continuity, availability, latency, corruption) in determining the RLP value, the concept received very negative comments from some ANC member during an open meeting at

RPASP/WGWHL-2. This has generated several reactions, sometimes very harsh, on the possibility to adopt or not the RLP principle inside Annex 10 Vol. 6. As a result, the ICAO Secretariat has decided that the term "RLP" will be replaced in existing documents by "Required Link Performances". This, as can be easy understood, has not solved any of the issues and a new WP will be presented at RPASP/WGWHL-3 for discussion on the way forward. Updates will be provided during the conference.

2.7.4. It has to be noted that IFATCA, together with some other States, promoted since the beginning the involvement of other Panels or expert groups in the RLP discussion. Such proposal has always been rejected by the ICAO Secretariat because the involvement of people not used to the RPAS world might have delayed the activities. However, IFATCA has always expressed concerns on this because the isolated work, also inside the RPASP itself, has always brought to limited harmonisation and to the need of remedial actions. For example, there is the concrete risk that the RLP concept won't be accepted by other Panels or that fundamental assumptions, like separation minima, won't be valid anymore.

2.8. RPASPTF-I (RPASP Task Force Interception)

- 2.8.1. The IFATCA Member is the co-rapporteur of the TF together with an Advisor from Germany. The interception by military/state aircraft of an unmanned aircraft (UA) is a transversal issue because of the unique characteristic of not having the pilot on board. This issue requires clarification and SARPs to ensure a consistent approach is facilitated. Current Annex 2 Rules of the Air provisions present significant challenges for UA interception as they place heavy reliance on visual signals from both the intercepting and intercepted aircraft to confirm intent, etc. It is further noted that the DAA system of the intercepted aircraft could trigger avoidance manoeuvres upon detection of the intercepting aircraft. RPASP-WGWHL/1 (22 26 June 2020) agreed on establishing a dedicated Task Force (RPASPTF-I) to facilitate a multi-disciplinary approach to this issue.
- 2.8.2. TF-I, as part of the inter-Panel coordination, has received requests from the ICAO ATMOPSP and the ICAO FLTOPS to perform a safety assessment on the risk introduce by intercepting an RPA, especially in the case of Lost C2 Link state. TF-I, in cooperation with SASP-MSG, has proposed a dual approach to the issue and the methodology is described in RPASP/WGWHL-3/WP6. Updates will be presented at the conference.

3. CONCLUSION

3.1. The work on RPAS is continuing with the new main goal-line od October 2025. At this point, all work related to SARPs and Manuals need to be completed and delivered to ICAO to undergo the multi-annual review process that should ensure applicability by 2028.

- 3.2. IFATCA has always proposed and supported a comprehensive management of change process. Thanks to the work of IFATCA, such process is continuing, especially with the activities of the Stress Test Group led by IFATCA.
- 3.3. RLP, C2 link and Detect and Avoid (DAA) are still the most complex and discussed items.

4. **RECOMMENDATIONS**

It is recommended that this report is accepted.