



# ICAO

International Civil Aviation Organization  
**Twenty-Sixth Meeting of the Regional Airspace Safety  
 Monitoring Advisory Group (RASMAG/26)**

Video Teleconference, 20 – 23 September 2021

## Agenda Item 5: Airspace Safety Monitoring Activities/Requirements in the Asia/Pacific Region

### RMAS' 'W' VERIFICATION OF STATE AIRCRAFT

(Presented by Chairperson)

#### SUMMARY

During the Fourteenth Regional Monitoring Agency Coordination Group Meeting (RMACG/14), NAARMO presented IP22 which contained a brief inspection of the history of State aircraft (defined as military and other government aircraft performing non-commercial, sovereign functions) and their relation to civil authorities. This paper addressed an action from the RMACG/14 which asked all RMAs to take IP22 to their respective PIRGs and request clarification on responsibility of the RMA with regards to verification on approval status of State aircraft.

## 1. INTRODUCTION

1.1 During the Fourteenth Regional Monitoring Agency Coordination Group Meeting (RMACG/14), NAARMO presented IP22 which contained a brief inspection of the history of State aircraft (defined as military and other government aircraft performing non-commercial, sovereign functions) and their relation to civil authorities. IP22 is provided as **Attachment** to this paper.

2.1 While State aircraft generally fall outside the easy or statutory reach of a civilian entity (such as an RMA seeking confirmation of airframe and operator compliance with RVSM requirements), RMAs in general have been happy to accept reports of State aircraft compliance, ever since the first RVSM implementation trials in 1997 and continuing to the present state of global implementation. IP22 presented contextual information regarding State aircraft which show what limits RMAs when dealing with State aircraft in RVSM airspace.

3.1 After some discussions, RMACG/14 decided to ask all Regional Monitoring Agencies (RMAs) to take IP22 to their respective PIRGs and request clarification on responsibility of the RMA with regards to verification on approval status of State aircraft.

## 2. DISCUSSION

2.1 For Asia Pacific (APAC) region, this matter could be first discussed in the RASMAG meeting, as it is the advisory body on airspace safety issues, before proposing a draft conclusion to APANPIRG.

### RVSM Implementation Regarding State aircraft in APAC States

2.2 During the introduction of RVSM, State aircraft have been assumed to mostly be non-RVSM approved due to the reasons explained in IP22. Specific phraseologies were designed for non-RVSM approved State aircraft ("NEGATIVE RVSM STATE AIRCRAFT"), then they will be provided with at least 2000-ft vertical separation in the RVSM airspace.

2.3 In reality, whether a State has instituted an RVSM approval process for their State aircraft or not may vary greatly. Some States may have an RVSM approval process that can satisfy all civil RVSM requirements, while some may not. In fact, some State aircraft operators, not fully aware of civil RVSM approval requirements, have been found to mistake the RVSM certificate from the aircraft manufacturer as a full RVSM approval that warrants filing ‘W’ in Item 10 of their flight plans.

APAC RMAs’ Current Practice

2.4 All APAC RMAs conduct monthly and/or annual audit of ‘W’ designator in the flight plans against the combined global snapshot of all RMAs’ approval records. The results are presented annually in the RASMAG meeting. The flight plans of State aircraft have been included in the audit.

2.5 APAC RMAs also include RVSM approvals of State aircraft in their databases, if the information is provided to the RMA by the State CAA or the relevant body. These State aircraft approval records are then shared globally along with those of civil aircraft.

2.6 The aircraft that use ‘W’ in its flight plans but do not have matching RVSM approval records in the combined global snapshot are generally called ‘rogue aircraft.’ The initial list of rogue aircraft will first be sent to the responsible RMAs so that they can follow up their relevant State CAAs. If approval records of rogue aircraft cannot be obtained within 30 days from the first notification (criteria adopted by EUR APAC regions), then the aircraft will be treated as non-RVSM approved.

2.7 As expected, rogue aircraft that persistently stay on the list are mostly State aircraft. In order for rogue State aircraft to be removed from the list:

- State aircraft’s approval data needs to be provided to the designated RMA; or
- the State aircraft operator needs to stop using ‘W’ in item 10 of the ICAO Flight Plan.

2.8 Given the context outlined in IP22, this practice has been quite challenging.

2.9 Currently, States with State aircraft that have been on RMAs’ rogue list for quite some time are India and Pakistan. State aircraft from Bangladesh and Myanmar were also recently added to the list.

Effects of Discontinuing RMAs’ Verification of State aircraft’s RVSM Approval Status

2.10 The following table summarizes the effects on each stakeholder if the process above is discontinued:

Stakeholder	Pros	Cons
State CAA	No requirement to try to liaise with its State aircraft operators regarding their RVSM approval status, which can be viewed as going beyond their scope of responsibilities.	Increased risk in the oversight airspace if any rogue State aircraft enter the airspace.
ATSP	Simpler procedure as there is no need to re-confirm RVSM approval status of rogue State aircraft.	Increased risk in its airspace if any rogue State aircraft enter the airspace.
Civil aircraft operators	-	Increased risk of mid-air collision from being provided with 1,000 ft separation near rogue State aircraft that <u>do not</u> satisfy all RVSM safety requirements.

Stakeholder	Pros	Cons
State aircraft operators	Less likely to be penalized by being treated as non-RVSM approved while they might genuinely satisfy all RVSM safety requirements	Increased risk of mid-air collision from being provided with 1,000 ft separation if they actually <u>do not</u> satisfy all RVSM safety requirements
RMA	Less workload associated with handling rogue State aircraft	-

Proposed Action for a Draft Conclusion for APANPIRG

2.11 To decide on what RASMAG should recommend to APANPIRG, two options can be considered:

- a) The meeting makes a decision now, then draft a Conclusion for APANPIRG; or
- b) APAC RMAs administer a short questionnaire to States’ POCs (after RASMAG/26), then summarize the findings and draft a Conclusion for the upcoming APANPIRG (November 2021).

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) discuss any relevant matters as appropriate; and
- c) decided on one of the options proposed in 2.10.

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International Civil Aviation Organization  
**INFORMATION PAPER**

**REGIONAL MONITORING AGENCIES (RMA)**  
**FOURTEENTH RMA COORDINATION GROUP MEETING**

**Las Palmas, Gran Canaria, 17 to 21 June 2019**

**Agenda Item 1: RVSM Approvals**

**REGIONAL MONITORING AGENCIES AND CONFIRMING RVSM COMPLIANCE OF STATE  
AIRCRAFT**

(Presented by NAARMO)

(Prepared by Wayne Smoot and Robert Miller Jr.)

**Summary**

A brief inspection of the history of State Aircraft and their relation to civil authorities shows that in the last 100 years international deliberations have dealt predominantly with civil aviation almost to the exclusion of State aircraft

**1. INTRODUCTION**

1.1. The defining of a category known as “State Aircraft” began in the early 1900’s as diplomats struggled to define this special situation in a way conforming to the peaceful missions of aircraft so characterized. While State Aircraft generally fall outside the easy or statutory reach of a civilian entity (such as an RMA seeking confirmation of airframe and operator compliance with RVSM requirements), RMAs in general have been happy to accept reports of State aircraft compliance, ever since the first RVSM implementation trials in 1997 and continuing to the present state of global implementation. In order to show what limits RMAs may face when dealing with State Aircraft in RVSM airspace, this paper will present information from (1) the pertinent history and (2) the definitional ICAO documents relevant to RMA duties.

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## 2. DISCUSSION

### 2.1. History of “State Aircraft” Concept

2.1.1. **Pre-1919:** Arguably, the first regulation of aircraft in an airspace may have been done by the Paris police, 21 Nov 1783, after Jean-Francois Pilâtre de Rozier and François Laurent d'Arlandes flew 9 km across Paris in a Montgolfier balloon for 25 minutes. The police shortly afterward issued an order banning balloon flights without prior police approval. Other efforts came and went into the late 1800's and early 1900's without achieving lasting agreements (see Reference 1), until the first important conference on an international air law code was convened in Paris in 1910 (“International Air Navigation Conference”), running from 18 May to 29 June, with 19 European States in attendance. The Conference's ambitious agenda chiefly treated 4 areas: laws of nations; administrative and technical; customs; and regulation of the aerial navigation. However, in the end States could not agree 1) whether airspace should be “open” to all (like the high seas) or whether States have sovereignty over airspace; or (2) whether there should be right of innocent passage or need for prior authorization. Further efforts at codification occurred in 1911, 1913, 1916, and 1917, but the first important international agreement awaited the end of World War I.

2.1.2. **1919 Paris Convention:** An Inter-Allied Aviation Committee had been established in September 1917 by France, Great Britain, Italy and the United States with the aim of considering the limits of commercial aviation, but it was dissolved after the War in 1918. Under the auspices of the Paris Peace Conference in 1919, an Aeronautical Commission was established with participation by 12 States. In 7 months, this Commission drew up a “Convention Relating to the Regulation of Aerial Navigation,” signed by 27 of the 38 States on 13 October 1919. [Reference 2]

2.1.3. The Convention recognized a distinction in public international law between "private aircraft" and "State aircraft" within the following articles, namely [Reference 3]:

2.1.4. Article 30 - The following shall be deemed to be State aircraft: (a) Military Aircraft; (b) Aircraft exclusively employed in a State service, such as posts, customs, and police. Every other aircraft shall be deemed to be a private aircraft. All State aircraft other than military, customs and police aircraft shall be treated as private aircraft and as such shall be subject to all the provisions of the present Convention.

2.1.5. Article 31 - Every aircraft commanded by a person in military service detailed for the purpose shall be deemed to be a military aircraft. i.e., “...each state granted, during peacetime, the freedom of innocent passage through its sovereign airspace to the aircraft of other contracting states.”

2.1.6. Article 32 "...no military aircraft of a contracting State shall fly over the territory of another contracting State nor land thereon without special authorization."

2.1.7. **1944 Chicago Convention** (aka Convention on International Civil Aviation): The 7 Dec 1944, signing led to the provisional International Civil Aviation Organization (ICAO), 6 June 1945 to 4 April 1947); and then to the permanent ICAO as a specialized agency of the United Nations, 4 April 1947 ff., presently (May 2019) ratified by 191 countries. The Chicago Convention is not only a source of normative aviation law, but also provides relevant background information about the applicability of civil requirements and state aircraft .

2.1.8. Article 3 of the Convention is of prime importance to international air transport, both civil and military. It reads as follows:

- (a) This Convention shall be applicable only to civil aircraft, and shall not be applicable to state aircraft.
- (b) Aircraft used in military, customs and police services shall be deemed to be state aircraft.
- (c) No state aircraft of a contracting State shall fly over the territory of another State or land thereon without authorization by a special agreement or otherwise, and in accordance with the terms thereof.
- (d) The contracting States undertake, when issuing regulations for their state aircraft, that they will have due regard for the safety of navigation of civil aircraft

2.1.9. In summary, Chicago Convention's Article 3 specifically exempts State Aircraft from the Convention's rules (sub-para. a), perhaps a reflection of the difficulty of attaining a consensus on those rules for the sensitive topic of State Aircraft. It also defines State aircraft (sub-para. 2) narrowly into 3 categories only: military, customs, and police. Such a definition clashes with current practice if one considers medical services, mapping or geological survey services, disaster relief, VIP Government transport, mail services, forest fire-fighting aircraft, or even privately owned aircraft rented by governments transporting military personnel, prisoners, etc.

## **2.2. Foundational ICAO document excerpts for RMAs**

**2.3.** ICAO documents that define the work of an RMA - Doc. 9937, Doc 9574, Doc. 7300, Annexes 2, 6, and 11 - are silent about RMAs enforcing any scrutiny on State Aircraft. The next paragraphs show how little direct mention of "State aircraft" exists in them.

**2.3.1. Doc. 9937**, Second Edition (advance unedited) — 2018: "Operating Procedures and Practices for Regional Monitoring Agencies in Relation to the Use of a 300 m (1 000 ft.) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive" (aka RMA Manual). Nowhere in this document is found the phrase "State aircraft." There are a handful of minor mentions of "military," mostly in reference to filling out flight plan forms or ASE monitoring forms. The Foreword itself refers to the ICAO documents below.

**2.3.2. Doc 9574**, AN/934 "Manual on a 300 m (1 000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive" 3<sup>rd</sup> edition, 2012, Chapter 4, 94-3 & 4-4, on "Military Operations:"

**2.3.2.1** 4.3.3 States are reminded of the recognized responsibility in regard to military traffic as specified in the Procedures for Air Navigation Services — Air Traffic Management (PANS-ATM, **Doc 4444**), Chapter 16. In this regard, procedures must be developed and periodically reviewed in order to accommodate military flight operations that do not meet the equipment requirements of RVSM MASPS (see Chapter 3, 3.1 to 3.2). These procedures must specify how military flight operations in RVSM airspace are to be accommodated, but segregated from air traffic being provided with a 300 m (1 000 ft) VSM above FL 290. Suggested methods of accomplishing this are:

- a) providing temporary airspace reservations;
- b) providing block altitudes; and

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c) providing special routes applicable only to the mass movement of military aircraft on a temporary basis.

-Sole uses of word ‘military’ in entire document; does not contain phrase “State aircraft”

2.3.3. **Doc. 7300** “Convention on International Civil Aviation,” 2006, p. 2

2.3.3.1. Article 3, “Civil and state aircraft” (Language below is directly taken from the Chicago Convention.)

a) This Convention shall be applicable only to civil aircraft, and shall not be applicable to state aircraft.

b) Aircraft used in military, customs and police services shall be deemed to be state aircraft.

c) No state aircraft of a contracting State shall fly over the territory of another State or land thereon without authorization by special agreement or otherwise, and in accordance with the terms thereof.

d) The contracting States undertake, when issuing regulations for their state aircraft, that they will have due regard for the safety of navigation of civil aircraft.”

2.3.4 **Annex 2**, to the Convention on International Civil Aviation, “Rules of the Air,” July 2005. Material following from Part 3 puts forward an emergency procedure for intercepting State aircraft. Its referenced Attachment A adds no information pertinent to this discussion, either.

3.8.1 Interception of civil aircraft shall be governed by appropriate regulations and administrative directives issued by Contracting States in compliance with the Convention on International Civil Aviation, and in particular Article 3(d) under which Contracting States undertake, when issuing regulations for their State aircraft, to have due regard for the safety of navigation of civil aircraft. Accordingly, in drafting appropriate regulations and administrative directives due regard shall be had to the provisions of Appendix 1, Section 2 and Appendix 2, Section 1.

Note.— Recognizing that it is essential for the safety of flight that any visual signals employed in the event of an interception which should be undertaken only as a last resort be correctly employed and understood by civil and military aircraft throughout the world, the Council of the International Civil Aviation Organization, when adopting the visual signals in Appendix 1 to this Annex, urged Contracting States to ensure that they be strictly adhered to by their State aircraft. As interceptions of civil aircraft are, in all cases, potentially hazardous, the Council has also formulated special recommendations which Contracting States are urged to apply in a uniform manner. These special recommendations are contained in Attachment A. [no different use of “State aircraft” phrase in Att. A]

2.3.5 **Annex 6**, “Operation of Aircraft” (Parts I, II, III, 10 Nov 2016)

-Document does not contain phrase “State aircraft” or “military.”

2.3.5 **Annex 11**, “Air Traffic Services and the Procedures for Air Navigation Service” (July 2018)

-Document does not contain phrase “State aircraft.”

2.3.6 **Doc. 4444** “Procedures for Air Navigation Services — Air Traffic Management (PANS-ATM, Nov 2016)

Suggested phraseology when state aircraft is not approved for RVSM: “Negative RVSM” (pp. 12-12, & p. 12-30)

**2.3.7** In closing this section, it is noteworthy to reread a paragraph from Doc. 9973’s Foreword, (with emphases added):

“In order to ensure that the overall safety objectives of the air traffic services (ATS) system can be met, *all aircraft* operating in airspace where RVSM is implemented *are required to hold an approval, issued by the State* of the Operator or *State* of Registry as appropriate, indicating that they meet all the technical and operational requirements for such operations. This requirement, and the *responsibility of States with regard to the issuance of these approvals*, are specified in 7.2.4 b) of **Annex 6**, Parts I and II.”

This squarely places responsibility on States alone to verify RVSM approvals, but when States do not or cannot report on State aircraft for any particular State in their region, an RMA may find itself in an awkward position for providing the most accurate approval data to other RMAs.

### 3. CONCLUSION

3.1. This paper has shown that the first international codification that mentions State Aircraft was in 1919 and was essentially confirmed almost verbatim in the 1944 Chicago Convention, which is reflected intact in all ICAO documents pertaining to the RVSM Regional Monitoring Agency work. That is to say, State Aircraft are defined as military and other government aircraft performing noncommercial, sovereign functions. The result of Articles 30 and 32 of the Paris Convention is that military aircraft are exempt from the application by other States of legal enforcement measures applicable to civil aircraft.

### 4. REFERENCES

4.1. The Paris Convention of 1910: The path to internationalism, “THE POSTAL HISTORY OF ICAO,” by Albert Pelsser - Last updated on 8 May 2019

([https://www.icao.int/secretariat/PostalHistory/1910\\_the\\_paris\\_convention.htm](https://www.icao.int/secretariat/PostalHistory/1910_the_paris_convention.htm))

4.2. The 1919 Paris Convention: The starting point for the regulation of air navigation, *Op. Cit.*

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4.3. Michel Bourbonniere, et al., Military Aircraft and International Law: Chicago Opus 3, 66 J. Air L. & Com. , pp. 885-978 (2001). <https://scholar.smu.edu/jalc/vol66/iss3/2>

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