



**INTERNATIONAL CIVIL AVIATION ORGANIZATION
ASIA AND PACIFIC OFFICE**

**REPORT OF
ICAO COMMON AERONAUTICAL VIRTUAL
PRIVATE NETWORK OPERATIONS (CRV OG) SEMINAR FOR PACIFIC
STATES**

*Denarau Island, Fiji
(22 January 2024)*

The views expressed in this Report should be taken as those of
the Meeting and not the Organization.

Approved by the Meeting and published by the ICAO Asia and Pacific Office, Bangkok

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NIL

LIST OF ATTACHMENTS

NIL

1. Introduction

1.1 The Common aeRonautical Virtual Private Network Operations Seminar for Pacific States was held on 22 January 2024 in Denarau Island, Fiji.

2. Attendance

2.1 The Seminar was attended by **46** participants from **15** Member States/Administration namely Australia, Cook Island, Fiji, France, Hong Kong China, Kiribati, New Zealand, Pakistan, Philippines, Republic of Korea, Samoa, Thailand, Tonga, USA, and Vietnam, and 1 telecommunication provider namely PCCW Global.

3. Opening of the Seminar

3.1 The Seminar was opened by Mr. Vaughan Hickford, Manager Enterprise Architecture and Network, Airways New Zealand, CRV OG Co-Chair (Asia) and Mr. Kelepi Dainaki, General Manager, Air Navigation Engineering Services, Fiji Airport Limited, CRV OG Co-Chair (Pacific). Mr. Vaughan Hickford shared his appreciation to Fiji Airports for hosting the Seminar and their active involvement and contributions to supporting Pacific States in CRV implementation. He also welcomed all participants, recalled the motivation to organize the Seminar, and encouraged members to participate actively in the discussion.

3.2 Mr. Kelepi Dainaki, General Manager, Assets & Infrastructure, Fiji Airport Limited, also warmly welcomed all participants and expressed gratitude for the efforts of all parties and the outstanding achievements made in the progress of CRV implementation. Hoping that this Seminar will bring the necessary support to overcome the burden faced by Pacific states in CRV Implementation, the CRV Co-chair (Pacific) suggested active participation and contribution in the discussion to help CRV OG understand the issues faced by Pacific States and propose solutions to Pacific States. He reminded CRV's importance in facilitating AMHS and other ground-to-ground communication for safe flight operations. He also mentioned additional CRV OG responsibilities for the CRV Network's smooth operation.

3.3 Ms. Soniya Nibhani, Regional Officer, ANS (CNS) Implementation, extended a warm welcome to all participants and expressed deep appreciation for the efforts of the CRV OG Co-Chairs for leading the group and providing necessary guidance and support for an effective CRV Implementation in APAC region. She expressed gratitude to Fiji Airports for organizing the CRV seminar for the Pacific States and requested all Pacific States to work towards CRV implementation promptly, as the deadline to join CRV was December 2023.

4. Officers and Secretariat

4.1 Mr. Vaughan Hickford, Manager, Enterprise Architecture and Network, Airways New Zealand, CRV OG Co-Chair (Asia) and Mr. Kelepi Dainaki, General Manager, Assets & Infrastructure, Fiji Airport Limited, CRV OG Co-Chair (Pacific), chaired the Meeting.

4.2 Ms. Soniya Nibhani, Regional Officer ANS (CNS) Implementation, acted as the Secretary of the Meeting with the support of Ms. Zhong Wenhan, Regional Officer CNS, and Ms. Varapan Meefuengsart, the Programme Assistant from ICAO Asia and Pacific Regional Office.

5. Organization, Working Arrangements and Language

5.1 The working language for the Seminar was English, inclusive of all documentation and this Report.

6. Summary of Presentations

6.1 A total of Four (4) presentations were delivered by CRV OG Co-chairs (Asia), CRV OG Co-chair (Pacific), ICAO PSIDS Liaison officer, and PCCWG. In addition to four presentations, Pacific States shared information about the current ATS infrastructure in their State along with challenges faced in CRV Implementation. The following link can access the seminar report, presentations, and other resources: <https://www.icao.int/APAC/Meetings/Pages/2024-CRV-Seminar-and-CRV-OG-12.aspx>.

6.2 The summaries of all discussions are as follows:

SP/01 - Pacific States CRV Implementation

6.3 Mr. Vaughan Hickford, Manager Enterprise Architecture and Network, Airways New Zealand and CRV OG Co-chair (Asia), presented information about CRV Implementation in the Pacific States under agenda items 2, 4, and 5. He explained the necessity of implementing CRV and briefed the history of the establishment of CRV OG in the APAC region since 2016. After sharing the current CRV implementation status in the APAC region and the CRV governance concept, CRV Common Packages were introduced. Furthermore, a World Bank initiative - PASNET, which can provide VSAT connectivity at each site to facilitate voice and data services across the Pacific, was highlighted. Considering no direct connection between PASNET and CRV, the technical plan for migrating from PASNET to CRV was shared with the Meeting. Therefore, PASNET is deemed not fit for the purpose of last-mile connection.

6.4 The Seminar discussed the difference between CRV and PASNET projects, the progress of PASNET projects, and the current working infrastructure. Additionally, the difference between processes for transitioning from PASNET to CRV or CRV joining of States with PCCWG directly was elaborated by the CRV OG Co-chair (Asia). The Meeting noted that the total timelines from initial contact with PCCWG for joining CRV to CRV implementation may take 6-7 months.

SP/02 - Current Status of Pacific Island ATS connectivity & Analysis of the ATS connectivity issues in Pacific Region - CRV Joining process illustration and CRV implementation experience of Fiji

6.5 Mr. Kelepi Dainaki, General Manager Assets & Infrastructure, Fiji Airport Limited and CRV OG Chair (Pacific), presented the current status of Pacific Island ATS connectivity and analysis of the ATS connectivity issues in the Pacific Region under agenda items 3, 4, and 6. He emphasized that the significant challenges for ATS connectivity in the Pacific Islands are the availability of reliable communication infrastructure and the operational cost. Lastly, he shared Fiji's experience in joining CRV on defining the CRV Services & Bandwidth Requirement, determining the right CRV Package, CRV Package C+ initial procurement, and upgrading to CRV Package B+. The Meeting appreciated the information provided by Fiji and its support to the Pacific States for CRV Implementation.

SP03- SWIM-enabled Network Support for ATM Operations- ICAO PSIDS Liaison Officer

6.6 Mr Shane Sumner, ICAO Pacific Small Island Developing States (PSIDS) Liaison Officer, presented issues and challenges of legacy communication systems along with solutions. He shared information about future operations such as Trajectory based operations (TBO) and Flight and flow information in a collaborative environment (FF-ICE) elements, their benefits, and their relationship with the ICAO Global Air Navigation Plan and ICAO APAC Seamless ANS Plan. Lastly, he emphasized the significance of SWIM implementation and encouraged States/Administrations to work actively towards this objective.

6.7 The Meeting discussed concerns about the retirement of existing ATS messaging provisions by 2030 and the necessary action expected from States/Administrations before that. Additionally, a dialogue about bandwidth requirements for SWIM services for CRV was initiated. Considering that the basic principle of information exchange in SWIM is publish/subscribe, the Meeting requested that the ICAO Secretariat share information about any discussion planned in SWIM TF on developing a ruleset to guide or instruct users about information should be subscribed to so systems and networks are not overloaded or crashed by excessive subscription. ICAO Secretariat informed that such discussion is not being done in SWIM TF. ICAO Secretariat will share information with SWIM TF for further information/action required on this matter. ACTION ITEM 12-1

SP04- Program for Pacific Islands to join CRV- PCCW Global (PCCWG)

6.8 PCCWG shared the list of Pacific Islands and PASNET project details. PCCWG presented the price for CRV packages for all Pacific Islands and shared their new offer and technical equipment details to encourage Pacific States to join CRV.

6.9 The Meeting noted that, in the new offer, there is a monthly cost reduction of about 50% and in three tiers, the cost will be reduced further based on the number of sites committed to joining CRV and signing service orders before 30 April 2024. PCCWG informed that they require an additional 6-7 months for CRV circuit installation as different sites have different requirements, such as import license or other regulations to comply.

6.10 The Meeting discussed whether the proposed deadline to share the decision with PCCWG and sign the service order before 30 April 2024 is acceptable and achievable by the Pacific States. Cook Island, Samoa, and Tonga shared their strong intention to join CRV and that they should be able to sign service orders with PCCWG before 30 April 2024. Additionally, ICAO has deployed a PSIDS Liaison officer who can support Pacific States throughout the CRV implementation process.

Pacific States CRV Implementation

6.11 Under this agenda item, a total of six States, namely Cook Island, France, Kiribati, Samoa, Tonga, and the USA, shared their current ATS infrastructure, constraints/issues, and desired enhancements. Tonga shared its strong desire to join CRV. Based on the information provided, it was concluded that Package D or Package D+ is the best option for the Pacific Islands for CRV Implementation. For states ' convenience, PCCWG summarized necessary information about the CRV joining process for Package D or Package D+.

6.12 Tonga shared information about its current network infrastructure by following the paper.

Current Network Infrastructure – Tonga (IP/01)

6.13 Tonga presented its current network infrastructure, the constraints/ issues encountered, and the desired enhancement. The Seminar noted that the existing network infrastructure utilized by Tonga Airports Limited (TAL) is the PASNET by Airways New Zealand and through the internet connection from a local ISP. Tonga summarized the constraints/issues of PASNET on limited connectivity, issues resolving and maintaining, and reliability and shared its intention to join the CRV.
