



ICAO

*International Civil Aviation Organization*

**Twenty Sixth Meeting of the Communications/  
Navigation and Surveillance Sub-group (CNS SG/26) of  
APANPIRG**

*Video Tele-Conference, 5 – 9 September 2022*

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**Agenda Item 3:** Aeronautical Fixed Service (AFS)

3.1. Review Report of the Ninth Meeting of the Aeronautical Communications Services Implementation Coordination Group (ACSICG/9) including:

- Outcomes of Webinar on CRV Implementation;

**OUTCOMES OF ICAO ASIA PACIFIC IMPLEMENTATION OF CRV WEBINAR**

(Presented by the Secretariat)

**SUMMARY**

This paper presents the outcomes of the ICAO Asia Pacific Implementation of CRV Webinar held on *29 June 2022* via Video Tele-Conferencing (VTC).

**1. INTRODUCTION**

1.1 The ICAO Asia Pacific Implementation of CRV Webinar was held on *29 June 2022*. The webinar was organised via Video Tele-Conferencing (VTC) using Microsoft Teams.

1.2 The Webinar was attended by **61** participants from **15** States/Administrations, and **1** telecommunication provider from Australia, Bangladesh, Cambodia, Hong Kong China, Macao China, Fiji, France, India, New Zealand, Pakistan, Philippines, Singapore, Sri Lanka, USA, Viet Nam, PCCW and ICAO. The webinar report, presentations, and other resources can be accessed by following link:  
<https://www.icao.int/APAC/Meetings/Pages/2022-CRV-Webinar.aspx>

1.3 This paper summarized the key outcomes of ICAO Asia Pacific Implementation of CRV Webinar.

**2. DISCUSSION**

2.1 Total **Five** (5) presentations were delivered by CRV experts from Fiji, Hong Kong China, New Zealand, Singapore, and the USA. During the Webinar, Questions and Answers (Q & A) sessions were held at end of each presentation through the Pigeonhole tool. Throughout the Webinar, a total of **47 questions** were asked and *more than 15 feedbacks* for the Webinar were provided by Participants with **100% positive response**.

2.2 The summaries of all presentations are as follows:

**Agenda Item 3.1**

05-09/09/22

*SP101 – CRV Project and its Significance for Asia/Pacific Region*

2.4 Mr. Tran, Hoang (FAA), International Telecommunication Service, FAA, USA, ICAO APAC ACSICG Chair, presented a brief history of communication network infrastructure from Aeronautical Fixed Service (AFS) Enhancement Using ATN-Early 2000s to a common Internet Protocol (IP) Network - Common Aeronautical Virtual Private Network (CRV). The presentation provided the audience with required information about the motivation and necessity of the CRV Project in the APAC region by summarizing the existing issues faced by most Member States when communicating between ANSPs and the reasons for replacing/upgrading telecommunication service. It was concluded that CRV is an infrastructure for all ANSPs to inter-communicate and with a common infrastructure, while the network could be protected with safe and efficient air traffic services.

*SP102 – Challenges and Proposed Solutions for CRV Implementation in Pacific States*

2.5 Mr. Kelepi Dainaki, Manager Air Navigation Engineering Services, Fiji Airport Limited, CRV OG Chair (Pacific) presented challenges and proposed solutions for CRV implementation in Pacific States. The presentation provided the audience with the latest status of implementation of CRV in Pacific States along with challenges faced by them, including poor terrestrial connectivity, the high cost of the last mile connectivity, less traffic movement, etc. He recalled the CRV Cost Benefit Analysis (CBA) iteration for small Pacific States in 2015, and discussed proposed solutions for Pacific States and small ANSPs by sharing Fiji's experiences to ensure No Country Left Behind in CRV Implementation.

*SP201– Synthesis of CRV Operational Manual*

2.6 Mr. Vaughan Hickford, Team Leader Network Design, Airways New Zealand, CRV OG Chair (Asia) presented information about APAC CRV Operational Manual. With the introduction to the common package of the CRV network, he emphasized the CRV Operational Manual is a method of capturing the way the CRV OG operates. The presentation informed that CRV Operational Manual covers the description of the documents in the Common Package, the Terms of Reference, stages of implementation, and onboarding of new services and providers, etc. Participants noted the Common Package, Operations Manual and Implementation Plan were stored in the CRV portal hosted on Airways New Zealand's Office 365 instance.

<https://airwayscorporation.sharepoint.com/teams/APAC-CRV/SitePages/Home.aspx>

*SP202 – Synthesis of CRV Implementation Plan*

2.7 Mr. Augustine Lau, Principal Engineer (Communications), Civil Aviation Authority of Singapore, introduced the Synthesis of CRV Implementation Plan. He shared that the CRV Implementation Plan provides guidance for all States/Administrations on the operation requirements for the upcoming CRV used in APAC Region and the roadmap for implementation. The responsibility of each CRV implementation relevant entities, including CRV Operations Group, national CRV Point of Contact, local CRV Point of Contact, and CRV contractor were introduced in detail. Furthermore, he elaborated on the requirements of basic site implementation and basic network, and analyzed the CRV implementation work processes, application transition schemes, APAC IPv4 address plan, and contingency plan/ back-off plan respectively.

*SP203 – Standardized Contract Conditions for CRV*

2.8 Mr. Eddy Lee, PCCW Global, the approved vendor to provide CRV services and circuits in APAC/MID region, briefed about the standardized contract conditions for CRV. He shared CRV network status and progress within APAC region and introduced the CRV Package Options which consists of four major packages (A, B, C, D) plus two variations (B+, C+) in detail. Additionally, the charge of CRV Bandwidth & Package Upgrade/Downgrade under different package options were elaborated.

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any matters as appropriate.

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