*International Civil Aviation Organization*

**ICAO**

**Twelfth Meeting of the Common aeronautical Virtual Private Network Operations Group (CRV OG/12)**

*Denarau Island, Fiji, 23-26 January 2024*

Agenda Item 5:     New Zealand hosted CRV Portal management
                   CRV users subscription to CRV portal
     &
Agenda Item 9:     States CRV Implementation

**PROGRESS OF CRV IMPLEMENTATION IN PAKISTAN**

(Presented by Pakistan Civil Aviation Authority)

| **SUMMARY** |
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| This paper provides updated information about implementation of CRV in Pakistan and current/future Bandwidth requirements |

1.     **INTRODUCTION**

1.1     Pakistan being member state is committed for implementation of CRV for exchange of flight information with neighboring states. Accordingly, a contract between Pakistan Civil Aviation Authority and CRV Service Provider (PCCW Global) was signed in Dec 2022 on behalf of Pakistan.

1.2     PCCW Global installed its NID (Network Interface Device) at Jinnah Int'l Airport Karachi and established connectivity of Karachi – Pakistan with Mumbai - India and Beijing – China over CRV Network in Sep 2023.

2.     **DISCUSSION**

2.1     Currently Pakistan is having an ATS Message Handling System (AMHS) with Server installed at Karachi and associated terminals at major airports.  Pakistan is connected with China, India, Oman, Iran, Kuwait and Afghanistan for exchange of **AFTN**/**AMHS**/**AIDC** data and voice. ATS coordination between Pakistan and neighboring FIRs is carried out from Karachi, Lahore and Islamabad ACC(s) through dedicated links or switched hotlines. The details of existing data & voice links installed in Pakistan are as indicated in Annexure-A.

2.2     Pakistan has initially subscribed to CRV package `D` with **1Mb** bandwidth for sharing **AMHS** data and voice communication.

2.3     The connectivity with India over CRV network has been successfully established while test/trials with China are in progress.  The AFTN/AMHS link between Karachi and Kabul will be shifted to CRV once agreed by Afghanistan

2.4     The **AFTN**/**AMHS** data and voice connectivity over CRV network with states locating in CRV MID – region i.e. Iran, Oman and Kuwait will be established as soon as deemed suitable by respective states. Specially the existing non-redundant **DXX** (**Digital Cross Connect**) link between Karachi & Muscat needs urgent shifting on CRV due to technological obsolescence, discontinuation of support from local service provider and retiring of submarine cable in the year 2024

2.5     In future, Pakistan may consider upgrading of CRV subscription to higher package to meet anticipated requirement of enhanced Bandwidth and to increase level of redundancy and reliability of existing links operating on CRV network

2.6     The updated information regarding the "Asia / Pacific ATN Infrastructure Routing Plan" has been provided to CRV portal hosted in New Zealand, to further align operational strategies of Pakistan with the latest technological advancement

**3.      ACTION BY THE MEETING**

3.1      The meeting is invited to:

            a) note the information contained in this paper; and

            b) discuss any relevant matter as appropriate

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## **INTERNATIONAL LEASED CIRCUITS (DATA/SPEECH) OPERATING BETWEEN PAKISTAN & NEIGHBOURING STATES**

| Sr. No. | CONNECTING CITY | COUNTRY | TYPE OF SERVICE | TYPE OF CONNECTIVITY | BANDWIDTH |
|---------|-----------------|---------|-----------------|----------------------|-----------|
| a | Beijing | China | AFTN | Dedicated circuit | 64Kbps |
| b | Mumbai | India | AMHS data + VoIP | CRV | 1Mbps |
| c | Muscat | Oman | AFTN + VoIP | Dedicated circuit | 64Kbps |
| d | Kuwait City | Kuwait | AMHS data | MPLS | 128 Kbps |
| e | Tehran | Iran | AFTN + VoIP | VPN | 1Mbps |
| f | Kabul | Afghanistan | AFTN | VPN | 1Mbps |
| g | Delhi | India | Voice | Dedicated circuit | 64Kbps |