

International Civil Aviation Organization
FOURTH MEETING OF THE COMMON REGIONAL VIRTUAL PRIVATE NETWORK TASK FORCE (VPN) OF APANPIRG (CRV TF/4)

Bangkok, Thailand, 18 - 19 May 2015

## Agenda Item 2: Review tasks progress and issues

g) OOG rules and procedures

## COST SHARING SCHEME FOR CRV

(Presented by the Secretariat)


#### Abstract

\section*{SUMMARY}

This paper introduces a proposal for sharing the costs of CRV services and the costs related to OOG administration.


## 1. Introduction

1.1 The point of how to fairly share the cost of administrating OOG and, more importantly, the cost of CRV services between States was raised by the meeting Common session DOA/Conops/TOR \#2 held on 31 March 2015.
1.2 This paper introduces a proposal for sharing CRV service and structural costs.

## 2. Discussion

2.1 The second iteration of the Cost benefit analysis introduced by the working paper 02 shows that for States with poor terrestrial connectivity, the cost is increased (at least $+100 \%$ ) to move from the current situation to CRV, however for a better service.
2.2 For States with good terrestrial connectivity, this is the opposite: the cost is reduced ( -30 to $-50 \%$ ) to move from the current situation to CRV, with an equivalent or better service. States with good terrestrial connectivity would therefore benefit more from the move to CRV, and could contribute to soften/compensate the cost increase for small States.

## Need for equity

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ICAO Doc 9161 Manual on Air Navigation Services Economics states that a multinational "agreement should outline the procedure to be applied for determining the cost share to be borne by each participating State. Any cost sharing method should, to the extent possible, be equitable, simple and easy to apply. The question of equity should not only be considered in the
context of the participating States but also with respect to the final users (aircraft operators) since it may be assumed that in most instances the participating States would include the costs they incur in the cost base for their air navigation facility charges, where levied."
2.4 This outcome shows that higher costs may have to borne by small States having yet less GDP and less aeronautical activity. In turn, if part or totality of these costs are included in the cost base for their air navigation facility charges, this situation may not be fair to the final users.

## Criteria to fix the sharing scheme

2.5 Therefore, the approach towards cost determination should be based on that recommended in the ICAO Manual on Air Navigation Services Economics (Doc 9161).
2.6 Any method of cost sharing should, in principle, be based on the extent of the use of the multinational facility/service concerned by each participating State. In the case of CRV, CRV services will be used for international Aeronautical Fixed Services communications to handle civil flights. As CRV will not be used for communications inside a User State, all communications can be considered international: there is no domestic component. Furthermore, VFR flights would account for a negligible part of the data volume exchanged over CRV.
2.7 Interestingly, ICAO Doc 9161 furthers stresses (para 6.102 refers) that "costs in the form of payments made by a State to a service provider offering CNS/ATM systems services to several States will need to be allocated among the different CNS/ATM systems user States involved. That, in turn, would require an agreement between the parties concerned as to how such an allocation should proceed. Assuming a uniform level of service, such allocation could be based on distance flown or the number of flights in the airspace for which each State has accepted responsibility. Both can be considered as being reasonable proxies for usage. Distance flown would offer more precision while using number of flights as the basis would be simpler to administer".

The CRV costs will consist of:

- Costs charged by the CRV common service provider
- One-off costs (initial installation of communication lines in the user States, project management costs)
- Recurrent costs of communication
- OOG administration costs (mostly: staff salaries).
2.9 Recurrent costs of communication will constitute by very far the main part of the costs. Based on the information collected from the Request for Interest (RFI) process conducted by the CRV Task Force, recurrent costs of communication will be based on a service level, access line bandwidths (also called "line speed") and location. It will not be based on the distance flown or the number of flights in a given FIR.
2.10 One-off costs will be based mainly on the location and available terrestrial connectivity. It will not be based on the distance flown or the number of flights in a given FIR.
2.11 OOG administration costs will not be based on the distance flown or the number of flights in a given FIR but will result of the number of staff employed and other operating costs.
2.12

Interregional connectivity (of CRV with PENS, of CRV with MID region, etc.) could be shared among all State users, based on the same formula. If users of 2 regions use CRV, then this share could be done inside each region considered.

## Charging formula

2.13 A formula based on number of IFR flights and number of aircraft departures in the international aerodromes for total scheduled and non-scheduled services could be used.
2.14 The formula would be revised on a 5 years basis by OOG. The baseline for the number of IFR flights and number of aircraft departures would be the latest available at the date of 2016.
2.15 This formula would be imposed as a requirement to the CRV service provider in the billing process. The CRV service provider would be required to detail one-off costs and recurrent costs of communication, detailed by points of delivery.

## Cost recovering for CRV

2.16 According to ICAO Doc 9161, it would be up to each participating State to decide whether or not it wishes to recover its CRV cost share from the users (aircraft operators). A State could either include these costs in its cost base for route facility charges (if it levies such charges) or, alternatively, recover the costs by levying a separate charge (normally a more complex and costly procedure to administer). While the recovery of such cost shares from users might normally not be referred to in an agreement on a multinational facility/service, the agreement could include a provision to the effect that such recovery must be based on Article 15 of the Chicago Convention as well as the principles and recommendations in Doc 9082.

## 3. Action by the Meeting

3.1 The meeting is invited to:
a) note the information contained in this paper; and
b) discuss the cost sharing scheme proposed and consider the adoption of a formula through a draft conclusion.

