



ICAO

*International Civil Aviation Organization***SEVENTH MEETING OF SPECTRUM REVIEW WORKING GROUP (SRWG/7)***Bangkok, Thailand, 15 – 17 February 2023***Agenda Item 3:** Review Frequency planning requirements for the Asia/Pacific Region

3.1 VHF COM Frequency Allotment Plan for APAC

**REVIEW OF VHF COM FREQUENCY ALLOTMENT PLAN FOR APAC**

(Presented by the Secretariat)

**SUMMARY**

This paper presents a summary of the efforts on improving the utilization of frequency band 117.975 MHz-137 MHz at regional level and invite continuous support from Administrations.

**1. INTRODUCTION**

1.1 Annex 10, Volume V, Chapter 4 contains a general allotment of the frequency band 117.975–137 MHz. The main subdivisions of this band are the frequency bands allocated to both international and national services and frequency bands solely allocated to national services. Specific allotments to services are to be determined regionally.

**2. DISCUSSION**

2.1 The Asia/Pacific Regional Air Navigation Meeting was convened by the International Civil Aviation Organization on 5 September 1973 at the Honolulu International Center in Hawaii, USA, and completed its Agenda on 28 September 1973. Under its Agenda Item 14, the meeting agreed the VHF COM frequency utilization based on 100 kHz channel spacing as the volume of the ATS requirements for VHF communications presented to the COM Committee could be met on the basis of 100 kHz spacing in most part of the area considered by the Meeting.

2.2 The Second Asia/Pacific Regional Air Navigation Meeting was convened by the International Civil Aviation Organization on 11 January 1983 at the Mandarin Hotel in Singapore, and completed its Agenda on 28 January 1983. The Meeting noted that the existing frequency assignment plan for the ASIA/PAC Regions was based on 100 kHz spacing. Nevertheless, in order to meet new requirements, it was necessary to base future assignments on a 25 kHz frequency utilization plan. The updated VHF FREQUENCY UTILIZATION PLAN was provided in Appendix E of Report on Agenda Item 4, which included Air-to-air 128.950MHz.

**Agenda Item 3**

15-17/02/23

2.3 The Third Asia/Pacific Regional Air Navigation Meeting was convened by the International Civil Aviation Organization on 19 April 1993 at the Imperial Queen's Park Hotel in Bangkok, Thailand and completed its Agenda on 6 May 1993. The Meeting adopted the updated VHF AMS frequency utilization plan as shown in Appendix B to Agenda 11 and the current use of 25 kHz spaced channels in the ASIA/PAC Regions was considered adequate for the foreseeable future.

2.4 The Twelfth Meeting of the APANPIRG ATS/AIS/SAR Sub-Group (ATS/AIS/SAR/SG/12) held on 24 - 28 June 2002 in Bangkok, Thailand. During the meeting, IATA presented WP/8 *Frequency Assignment for In-Flight Broadcast Contingency Planning*. Based on the proposal by ATS/AIS/SAR/SG/12, APANPIRG/13 agreed to formulate the following Conclusion:

**Conclusion 13/7 – Adoption of a regionally protected frequency for Traffic Information Broadcasts by Aircraft (TIBA)**

That,

- a) A designated VHF radio telephony (RTF) frequency of 128.95 MHz be promulgated in the Regional Supplementary Procedures (Doc 7030) for the Asia/Pacific Region for the use of Traffic Information Broadcasts by Aircraft to permit reports and relevant supplementary information of an advisory nature to be transmitted by pilots; and,
- b) All States in the Asia/Pacific Region to include the frequency of 128.95 for the use of TIBA in their contingency plans.

2.5 SRWG/2 was held on 12 – 14 May 2015, the meeting discussed WP/02 *Frequency Planning and Protection of the Frequencies 121.500 MHz, 123.100 MHz and 123.450 MHz*, which recalled Amendment 88-A to Annex 10, Volume V in 2013 on reduced guard band around the aeronautical emergency frequency. Considering the effect of the reduction of the guard band around the frequency 121.500 MHz and the four new channels that can be used for ATC communications, it is proposed to modify the frequency allotment plan for the APAC Region, and the APANPIRG/26 meeting adopted the following Conclusion:

**Conclusion APANPIRG/26/50 – Amendment to the APAC frequency allotment plan**

*That, considering the effect of the reduction of the guard band around the frequency 121.500 MHz and the four new channels that can be used for ATC communications and the necessity to map services previously defined in APAC Region under ASIA/PAC/3 RAN meeting Recommendation 11/4,*

- a) *the frequency allotment plan for the APAC Region be modified as follows:*

<b><i>Current allotment</i></b>	<b><i>Current frequency band</i></b>	<b><i>New frequency band</i></b>
<i>APP-I</i>	<i>121.100 – 121.400 MHz</i>	<i>121.100 – 121.450 MHz</i>
<i>AS (aerodrome surface)</i>	<i>121.600 – 121.975 MHz</i>	<i>121.550 – 121.975 MHz</i>

- b) *coordination be undertaken with ICAO HQ to update the ICAO Doc 9718 Volume II accordingly.*

- c) *the mapping between the services and designated operational coverages previously defined in APAC Region under ASIA/PAC/3 RAN Meeting Recommendation 11/4 and those defined in the global Database as per **Appendix O** to WP/9 is adopted.*

2.6 SRWG/2 WP/5 *Global and Regional Allotments* presented measures envisaged at the global level regarding allotments in the VHF-COM frequency band 117.975 – 137 MHz to increase the efficiency of frequency management and called for an impact assessment in the APAC region. A Survey on two measures proposed by SRWG/2 was conducted through the circulation of ICAO State letter AP087/15, **a)** to abandon the discrimination between national and international aeronautical mobile services within the band 117.975 – 137 MHz; **b)** to adopt the new sub band 128.900 - 131.375 MHz for ATS services in APAC, which is a part of the sub-band currently allotted to AOC (128.900 – 132.025 MHz). Existing assigned AOC frequencies in the sub-band 128.900 - 131.375 MHz would be subject to further coordination, if required, between the Member State and ICAO regional office. The outcome of the survey was reported to CNS SG/19 by WP/13.

2.7 SRWG/6 discussed WP/14 *Frequency Simulation for India*, the simulation demonstrated that the frequency requirements requested by India for up to 2030 can be satisfied within the frequency band 117.975 - 137 MHz with certain conditions, including a re-organization for the pools to which frequencies are allotted may be required. In addition, heavy congestion is expected at that time throughout most of this frequency band.

2.8 Currently, the VHF COM frequency coordination and registration in APAC region is supported by ICAO tool Frequency Finder. The tool is updated to implement the planning principle of Doc 9718 Volume II (Second Edition, 2022) as well as the VHF COM Frequency Allotment Plan for APAC which is provided in Doc 9718 Volume II as APP B-2. A copy of this Plan is also attached to this paper as Appendix for easy reference.

2.9 During the day-to-day frequency coordination, some proposals by States were identified to fall into the **Not allotted** part of the VHF COM Frequency Allotment Plan for APAC, and the ICAO Regional Office would advise this finding and make alternate spots for the specific functions.

2.10 The SRWG/4 recommended to develop a Regional Aeronautical Radio Frequency Management Guidance Material for States/Administrations in the APAC region to implement the frequency assignments in a coordinated manner with ANSP, CAA and national frequency Authorities to satisfy future operational needs or the introduction of new technologies. Regional 117.975MHz-137MHz frequency band utilization plan will be incorporated into this Guidance Material as Appendix C.

2.11 In 2015, there were some 32 frequency assignments of 123.450 MHz to ground stations in the APAC Frequency List No. 3. Up to date, there is now zero registration on 123.450MHz for ground station while there are two registrations of 128.950MHz for ground stations in APAC, as per Frequency Finder.

### **3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper and Appendix;
- b) review the various efforts on improving the utilization of frequency band 117.975

**Agenda Item 3**

15-17/02/23

MHz-137 MHz at regional level;

- c) revisit the necessity to implement 128.95MHz for TIBA; and
- d) discuss any relevant matter as appropriate.

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