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**APT REPORT ON**

**IMPLEMENTATION OF THE BANDS 108 – 117.975 MHZ, 328.6 -335.4 MHZ AND 960 – 1 164 MHZ FOR AERONAUTICAL RADIONAVIGATION SYSTEMS IN APT REGION**

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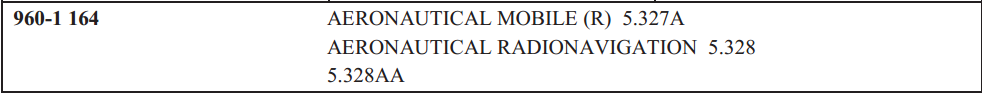
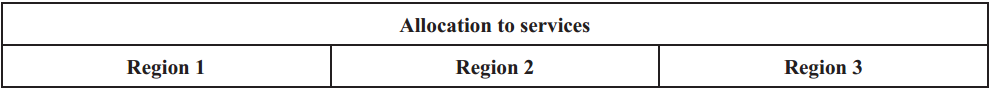
1. **Introduction**

In APT countries, the 108 – 117.975 MHz, 328.6 – 335.4 MHz and 960 – 1164 MHz frequency bands are commonly used for aeronautical radionavigation systems.

This report could support and assist APT Members in using the mentioned radio frequency spectrum and deploying aeronautical radionavigation systems in these bands effectively.

1. **Frequency allocation**

The bands 108 – 117.975 MHz, 328.6 – 335.4 MHz and 960 – 1164 MHz are globally allocated for Aeronautical Radionavigation Service (ARNS). In Asia Pacific region, these bands are also allocated for ARNS and allowed to implement aeronautical radionavigation systems in accordance with recognized international aeronautical standards (also called International Civil Aviation Organization systems).



**3 ARNS systems in the bands 108 – 117.975 MHz, 328.6 – 335.4 MHz and 960 – 1164 MHz**

**3.1 108 – 117.975 MHz frequency band**

In the frequency band 108 – 117.975 MHz, VHF Data Link (VDL) mode 4, Ground-Based Augmentation System (GBAS), Instrument Landing System (ILS) localizer, VHF Omni-directional Radio Range (VOR) and Doppler VOR (DVOR) stations could be used, and frequency channel assignment/selection is proposed in the table of Frequency Arrangements described in Section 4.

**3.2 328.6 – 335.4 MHz frequency band**

In the frequency band 328.6 – 335.4 MHz, ILS glide path stations could be used, and frequency channel assignment/selection is proposed in the table of Frequency Arrangements described in Section 4.

**3.3 960 – 1164 MHz frequency band**

In the frequency band 960 – 1164 MHz, Distance measuring equipment (DME), Tactical Air Navigation System (TACAN), Air Traffic Control Radar Beacon System (ATCRBS), Secondary Surveillance Radar (SSR), stations could be used, and frequency channel assignment/selection is proposed in the table of Frequency Arrangements described in Section 4.

**4 Frequency channel arrangements**

The frequency channel arrangements for the 108 – 117.975 MHz, 328.6 – 335.4 MHz and 960 – 1164 MHz bands for Radio Stations assigned to the Aeronautical Radionavigation Service should be in line with the latest version of ICAO Standard and Recommended Practices (SARPs), Annex 10.

**5 Focal point for frequency coordination in some APT countries**

The list of focal points in Annex 1 is provided by the correlative Administrations in some APT countries and is used for frequency coordination.

ANNEX 1

**List of focal point for ARNS frequency international coordination in some APT countries**

| **No.** | **Country/Territory** | **Frequency Coordination agency** | **Frequency Assignment agency** |
| --- | --- | --- | --- |
| 1 | Bangladesh (People's Republic of) | Civil Aviation Authority of Bangladesh (CAAB) | Bangladesh Telecommunication Regulatory Commission (BTRC) |
| 2 | Indonesia (Republic of) | Directorate of Spectrum Policy and Planning | Directorate of Spectrum Policy and Planning |
| 3 | Iran (Islamic Republic of) |  | Iranian Airport Company |
| 4 | Japan |  | Ministry of Internal Affairs and Communication |
| 5 | New Zealand | [Civil Aviation Authority](http://www.caa.govt.nz) | [Radio Spectrum Management](http://www.rsm.govt.nz/licensing/types-of-licences/aeronautical-aircraft-licences) |
| 6 | Thailand (Kingdom of) | Civil Aviation Authority of Thailand/Aeronautical Radio of Thailand, Ltd | National Broadcasting and Telecommunications Commission (NBTC) |
| 7 | Viet Nam (Socialist Republic of) | [Civil Aviation Authority](http://www.caa.gov.vn) | [Authority of Radio Frequency Authority](http://www.cuctanso.vn) |