

1.4 144 – 146 MHz Bandplan

| Frequency (MHz) | Maximum Bandwidth | MODE | USAGE |
|-----------------|-------------------|-----------------------------------|--|
| 144.000 | 2700 Hz | ALL MODE | Satellites (downlinks only) (s) (Varna 2014) |
| 144.025 | 500 Hz | Telegraphy (a) | 144.050 Centre of activity 144.100 Random MS(m) |
| 144.100 | 500 Hz | Telegraphy & MGM | 144.110–144.160 EME MGM (i) |
| 144.150 | 2700 Hz | Telegraphy & SSB & MGM | 144.195-144.205 Random MS SSB (m) 144.300 SSB Centre of activity |
| 144.400 | 500 Hz | Telegraphy MGM | Beacons exclusive (b) |
| 144.490 | 500 Hz | EMGM | Experimental MGM |
| 144.500 | 20 kHz | All mode (f) | 144.500 Image mode centre (SSTV, Fax,..) 144.600 Data centre of activity(MGM,RTTY,..) 144.750 ATV talk back |
| 144.794 | 12 KHz | MGM (h) Digital Communications | 144.800 APRS 144.8125 DV Internet voice gateway 144.8250 DV Internet voice gateway 144.8375 DV Internet voice gateway 144.8500 DV Internet voice gateway 144.8625 DV Internet voice gateway |
| 144.9625 | | | |

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|----------------------|-------|------------------------|---|
| 144.975 145.194 | 12kHz | FM / Digital voice | Repeater Input exclusive (c) |
| 145.194 145.206 | 12kHz | FM / Digital voice (i) | Space communication (p) |
| 145.206 145.5625 | 12kHz | FM / Digital voice (i) | 145.2375 FM Internet Voice Gateway 145.2875 FM Internet Voice Gateway 145.3375 FM Internet Voice Gateway 145.375 digital voice calling 145.500 FM calling |
| 145.5625 145.5750 | 12kHz | FM / Digital voice | Repeater Output exclusive (c, d) |
| 145.7935 145.794 | 12kHz | FM / Digital voice (i) | Space communication (p) |
| 145.794 145.806 | 12kHz | FM / Digital voice (i) | Space communication (p) |
| 145.806 146.000 | 12kHz | ALL MODE (e) | Satellite exclusive |

1.4.1 Notes: BANDPLAN

The following notes are part of the officially adopted IARU Region 1 bandplan, and all member societies should strongly promote adherence to the recommendations made in these notes.

General:

- i. In Europe no input or output channels of telephony repeaters shall be allowed to operate between 144.000 and 144.794 MHz.

Footnotes:

- a. Telegraphy is permitted over the whole band, except in the beacon band; Telegraphy exclusive between 144.000 - 144.110 MHz. (except satellite output downlink to earth)
- b. Refer to Beacons Chapter for coordination of beacons in the beacon sub-band Section-
- c. For technical standards on FM and repeaters PART 3 section 8.2
If there is a real need for more repeater channels it is recommended that Societies or Repeater Groups consider setting up a repeater system on the higher frequency band(s).
Further to this subject the following recommendation was adopted in. De Haan, 1993:
For the numbering of FM telephony channels, see annex 2 to this section.
- d. Established simplex frequencies on repeater output channels may be retained.
- e. In view of the important public relations aspect of amateur satellite activities, it was decided at the IARU Region 1 Conference in Miskolc Tapolca (1978) that:
 - i. AMSAT will be allowed to use the band 145.8 - 146.0 MHz for amateur satellite activity.
 - ii. This decision was re-confirmed at the IARU Region 1 Conference in Brighton (1981).
 - iii. see also footnote p
- f. No unmanned stations shall use the all-mode segment, except for linear transponders and ARDF beacons. (Tel Aviv 1996, San Marino 2002)
- i. This segment is for simplex use only with no Digital Voice gateways. Embedded data traffic is allowed along with digital voice. Digital Voice users should check that the channel is not in use by FM.
- j. Amateur Satellite Linear Transponder down-links. Subject to agreement with Region-2 and 3

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1.4.2 Notes: Usage

The following notes are referring to the Usage column in the bandplan. As already set out in the introduction to section IIc, in the right amateur spirit operators should take notice of these agreements which are made for operating convenience, but no right to reserved frequencies can be derived from a mention in the Usage column or from the following notes.

Footnotes:

- k. Not used
 - l. Not used
 - m. See procedures set out in section 1.4
 - n. Deleted (Varna 2014)
 - o. Not used
 - p. For FM voice communications with special stations like manned spacecraft it is recommended to use 145.200 MHz for simplex operation or 145.200/145.800 MHz for split-channel operation (Vienna 1995/Tel Aviv 1996).
 - q. It is recognised that in the IARU Region 1 rules for the Championships in Amateur Radio Direction Finding (ARDF) competitions, the frequencies for the unmanned beacons are in the segment 144.500 – 144.900 MHz. These beacons run low power and are on the air only during ARDF events. (Davos 2005)
 - r. No transmission shall be made below 144,0025 MHz* (Varna 2014)
- *so that a necessary guard band is provided at the bottom edge

1.4.3 National usage notes

Some countries have existing use at:

- • 144.660-144.690 Linear Transponder Inputs
- • 144.630-144.660 Linear Transponder Outputs