# IARU REGION 1 HF BAND PLAN

**A recommendation for all radio amateurs how to use the bands,**
**as revised at the Interim Meeting Vienna 2016, effective 01 June 2016.**

| FREQUENCY (kHz) | MAX. BANDWIDTH (Hz) | PREFERRED MODE AND USAGE |
|---|---|---|

## 2200m Band:

| | | | |
|---|---|---|---|
| 135.7 – 137.8 | 200 | CW, QRSS and narrow band digital modes | |

## 630m Band:

| | | | |
|---|---|---|---|
| 472 – 475 ** | 200 | CW | See NOTES |
| 475 – 479 ** | (#) | CW, digimodes | See NOTES |

( ** ) If a frequency is to be selected, particular attention must be paid to still existing Non Directional Beacons (NDB) of the radionavigaton service! (#) max. bandwidth not specified, 500 Hz suggested.

## 160m Band:

| | | | |
|---|---|---|---|
| 1810 - 1838 | 200 | CW, | 1836 kHz – QRP Centre of Activity |
| 1838 - 1840 | 500 | Narrow band modes | |
| 1840 - 1843 | 2700 | All modes – digimodes, (*) | |
| 1843 - 2000 | 2700 | All modes, (*) | |

Radio Amateurs in countries that have a **SSB allocation ONLY** below 1840 kHz, may continue to use it, but the National Societies in those countries are requested to take all necessary steps with their licence administrations to adjust the phone allocations in accordance with the Region 1 Bandplan. (Davos 2005)

## 80m Band:

| | | | |
|---|---|---|---|
| 3500 - 3510 | 200 | CW, priority for intercontinental operation | |
| 3510 - 3560 | 200 | CW, contest preferred, | 3555 kHz – QRS Centre of Activity |
| 3560 - 3570 | 200 | CW, | 3560 kHz – QRP Centre of Activity |
| 3570 - 3580 | 200 | Narrow band modes – digimodes | |
| 3580 - 3590 | 500 | Narrow band modes – digimodes | |
| 3590 - 3600 | 500 | Narrow band modes – digimodes, automatically controlled data stations (unattended) | |
| 3600 - 3620 | 2700 | All modes - digimodes, automatically controlled data station (unattended), (*) | |
| 3600 - 3650 | 2700 | All modes, SSB contest preferred, 3630 kHz – Digital Voice Centre of Activity, (*) | |
| 3650 - 3700 | 2700 | All modes, | 3690 kHz – SSB QRP Centre of Activity |
| 3700 - 3775 | 2700 | All modes, SSB contest preferred | |
| | | | 3735 kHz – Image Centre of Activity |
| | | | 3760 kHz – Reg.1 Emergency Centre of Activity |
| 3775 - 3800 | 2700 | All modes, SSB contest preferred, priority for intercontinental operation | |

## 60m Band:

| | | | |
|---|---|---|---|
| 5351.5 – 5354.0 | 500 | CW, Narrow band modes – digimodes | See NOTES |
| 5354.0 – 5366.0 | 2700 | All modes, USB recommended for voice operation (##) | See NOTES |
| 5366.0 – 5366.5 | 20 (!) | Weak signal narrow band modes | See NOTES |

It is strongly recommended that frequencies within the WRC-15 allocation only be used if there are no other frequencies available at 5 MHz under domestic (ITU-R article 4.4) permissions.

Local nets and long rag chew QSOs should not use the WRC-15 allocation at 5 MHz but should instead make use of the 3.5 MHz, 5 MHz domestic, or 7 MHz bands where there is more spectrum available.

## 40m Band:

| | | | |
|---|---|---|---|
| 7000 - 7040 | 200 | CW, | 7030 kHz – QRP Centre of Activity |
| 7040 - 7047 | 500 | Narrow band modes – digimodes | |
| 7047 - 7050 | 500 | Narrow band modes – digimodes, automatically controlled data stations (unattended) | |
| 7050 - 7053 | 2700 | All modes – digimodes, automatically controlled data stations (unattended) (*) | |
| 7060 - 7100 | 2700 | All modes, SSB contest preferred | |
| | | | 7070 kHz – Digital Voice Centre of Activity |
| | | | 7090 kHz – SSB QRP Centre of Activity |
| 7100 - 7130 | 2700 | All modes, | 7110 kHz – Reg.1 Emergency Centre of Activity |
| 7130 - 7175 | 2700 | All modes, SSB contest preferred, | 7165 kHz – Image Centre of Activity |
| 7175 - 7200 | 2700 | All modes, SSB contest preferred, priority for intercontinental operation | |

## 30m Band:

| | | | |
|---|---|---|---|
| 10100 - 10130 | 200 | CW, | 10116 kHz – QRP Centre of Activity |
| 10130 - 10150 | 500 | Narrow band modes – digimodes | |

SSB may be used during emergencies involving the immediate safety of life and property and only by stations actually involved in the handling of emergency traffic.

The band segment 10120 kHz to 10140 kHz may be used for SSB transmissions in the area of Africa south of the equator during local daylight hours. News bulletins on any mode should not be transmitted on the 10 MHz band.

## 20m Band:

| | | | |
|---|---|---|---|
| 14000 - 14060 | 200 | CW, contest preferred, | 14055 kHz – QRS Centre of Activity |
| 14060 - 14070 | 200 | CW, | 14060 kHz – QRP Centre of Activity |
| 14070 - 14089 | 500 | Narrow band modes – digimodes | |
| 14089 - 14099 | 500 | Narrow band modes - digimodes automatically controlled data stations (unattended) | |
| 14099 - 14101 | | IBP, exclusively for beacons | |
| 14101 - 14112 | 2700 | All modes – digimodes, automatically controlled data stations (unattended) | |
| 14112 - 14125 | 2700 | All modes | |
| 14125 - 14300 | 2700 | All modes, SSB contest preferred | |
| | | | 14130 kHz – Digital Voice Centre of Activity |
| | | | 14195 kHz ± 5 kHz - Priority for Dxpeditions |
| | | | 14230 kHz – Image Centre of Activity |
| | | | 14285 kHz – SSB QRP Centre of Activity |
| 14300 - 14350 | 2700 | All modes, | 14300 kHz – Global Emergency centre of activity |

## 17m Band:

| | | | |
|---|---|---|---|
| 18068 - 18095 | 200 | CW, | 18086 kHz – QRP Centre of Activity |
| 18095 - 18105 | 500 | Narrow band modes – digimodes | |
| 18105 - 18109 | 500 | Narrow band modes – digimodes, automatically controlled data stations (unattended) | |
| 18109 - 18111 | | IBP, exclusively for beacons | |
| 18111 - 18120 | 2700 | All modes – digimodes, automatically controlled data stations (unattended) | |
| 18120 - 18168 | 2700 | All modes, | 18130 kHz – SSB QRP Centre of Activity |
| | | | 18150 kHz – Digital Voice Centre of Activity |
| | | | 18160 kHz – Global Emergency Centre of Activity |

## 15m Band:

| | | | |
|---|---|---|---|
| 21000 - 21070 | 200 | CW, | 21055 kHz – QRS Centre of Activity<br>21060 kHz – QRP Centre of Activity |
| 21070 - 21090 | 500 | Narrow band modes, digimodes | |
| 21090 - 21110 | 500 | Narrow band modes, digimodes, automatically controlled data stations (unattended) | |
| 21110 - 21120 | 2700 | All modes (excluding SSB), digimodes, automatically controlled data stations (unattended) | |
| 21120 - 21149 | 500 | Narrow band modes | |
| 21149 - 21151 | | IBP, exclusively for beacons | |
| 21151 - 21450 | 2700 | All modes, | 21180 kHz – Digital Voice Centre of Activity<br>21285 kHz – SSB QRP Centre of Activity<br>21340 kHz – Image Centre of Activity<br>21360 kHz – Global Emergency Centre of Activity |

## 12m Band:

| | | | |
|---|---|---|---|
| 24890 - 24915 | 200 | CW, | 24906 kHz – QRP centre of activity |
| 24915 - 24925 | 500 | Narrow band modes – digimodes | |
| 24925 - 24929 | 500 | Narrow band modes – digimodes, automatically controlled data stations (unattended) | |
| 24929 - 24931 | | IBP, exclusively for beacons | |
| 24391 - 24940 | 2700 | All modes – digimodes, automatically controlled data stations (unattended) | |
| 24940 - 24990 | 2700 | All modes, | 24950 kHz – SSB QRP Centre of Activity<br>24960 kHz – Digital Voice Centre of Activity |

## 10m Band:

| | | | |
|---|---|---|---|
| 28000 - 28070 | 200 | CW, | 28055 kHz – QRS Centre of Activity<br>28060 kHz – QRP Centre of Activity |
| 28070 - 28120 | 500 | Narrow band modes – digimodes | |
| 28120 - 28150 | 500 | Narrow band modes – digimodes, automatically controlled data stations (unattended) | |
| 28150 - 28190 | 500 | Narrow band modes | |
| 28190 - 28199 | | IBP, regional time shared beacons | |
| 28199 - 28201 | | IBP, worldwide time shared beacons | |
| 28201 - 28225 | | IBP, continuous duty beacons | |
| 28225 - 28300 | 2700 | All modes – beacons | |
| 28300 - 28320 | 2700 | All modes – digimodes, automatically controlled data stations (unattended) | |
| 28320 - 29000 | 2700 | All modes, | 28330 kHz – Digital Voice Centre of Activity<br>28360 kHz – SSB QRP Centre of Activity<br>28680 kHz – Image Centre of Activity |
| 29000 - 29100 | 6000 | All modes | |
| 29100 - 29200 | 6000 | All modes – FM simplex – 10 kHz channels | |
| 29200 - 29300 | 6000 | All modes – digimodes, automatically controlled data stations (unattended) | |
| 29300 - 29510 | 6000 | Satellite Links | |
| 29510 - 29520 | | Guard channel | |
| 29520 - 29590 | 6000 | All modes – FM repeater input (RH1 – RH8) | |
| 29600 | 6000 | All modes – FM calling channel | |
| 29610 | 6000 | All modes – FM simplex repeater (parrot - input and output) | |
| 29620 - 29700 | 6000 | All modes – FM repeater outputs (RH1 – RH8) | |

## DEFINITIONS

**All modes** CW, SSB and those modes listed as Centres of Activity, plus AM (Consideration should be given to adjacent channel users).

**Image modes** Any analogue or digital image modes within the appropriate bandwidth, for example SSTV and FAX.

**Narrow band modes** All modes using up to 500 Hz bandwidth, including CW, RTTY, PSK etc.

**Digimodes** Any digital mode used within the appropriate bandwidth, for example RTTY, PSK, MT63 etc.

## NOTES

The frequencies in the band plan are understood as "transmitted frequencies"
(not those of the suppressed carrier!)

To prevent any out of band transmission the maximum dial setting for USB Voice mode should be 3 kHz below upper band edge on bands 20m to 10m.

**(*)** Lowest dial setting for LSB Voice mode: 1843, 3603 and 7053 kHz

(##) Highest dial setting for USB Voice mode on the 60m band: 5363 kHz

CW QSOs are accepted across all bands, except within beacon segments. (Recommendation DV05_C4_Rec_13)

Amplitude modulation (AM) may be used in the telephony sub-bands providing consideration is given to adjacent channel users. (NRRL Davos 05).

**Sideband Usage**

Below 10MHz lower sideband (LSB) is recommended, and above 10 MHz use upper sideband (USB).

The exception to this is on the 5 MHz band where USB is recommended.

**630m band:**
Details shown in the band plan above should be understood as "proposed usage". (VA14_C4_Rec_02)

**60m band:**
Details shown in the band plan above should be understood as "proposed usage". (VIE14_C4_Rec_02)

### Contests

Where no DX traffic is involved, the contest segments should not include 3500-3510 kHz
or 3775-3800 kHz.

Non-contesting radio amateurs are recommended to use the contest-free HF bands (30, 17 and 12m) during the largest international contests. (DV05_C4_Rec_07)

Contests should be restricted to 160, 80, 40, 20, 15 and 10m. That is 60, 30, 17, and 12m bands shall not be used for contests. (VIE16_C4_Rec_06 *)
( * to be ratified at General Conference 2017)

For more recommendations about contest segments see the IARU Region 1 HF Manager Handbook.

## Unmanned transmitting stations:

The term “automatically controlled data stations” includes Store and Forward stations.

IARU member societies are requested to limit this activity on the HF bands.

It is recommended that any unmanned transmitting stations on HF shall only be activated under operator control except for beacons agreed with the IARU Region 1 beacon coordinator, or specially licensed experimental stations.

Member Societies are reminded of the recommendation in the IARU Region 1 HF Band Plan ‘that any unmanned transmitting stations on HF shall only be activated under operator control, except for beacons agreed with the IARU Region 1 Beacon Coordinator’.

Unmanned transmitting stations, and operation involving unmanned transmitting stations, must adhere to the frequency and bandwidth limits of the band plan.

The operator connecting to an automatically controlled unmanned transmitting station is responsible for not causing interference. This is particularly important in the 30 meter band where the amateur service only has secondary status.

Amateur radio operators may transmit messages via unmanned transmitting stations during coordinated emergency, and disaster preparedness exercises, limited to the duration of such exercises, using a bandwidth not exceeding 2 700 Hz.

Such communication should be announced regularly on the frequency, and radio amateurs not participating in the communication should cooperate by not transmitting on the frequency. (VA14_C4_Rec_06).

## Beacons

For information about IARU Region 1 beacon policy see the IARU Region 1 HF Manager Handbook.

## Remote controlled operation on HF

Remote controlled operation is defined to mean operation where a licensed operator controls an amateur radio station from a remote control terminal.

Where a station is operated remotely, the following conditions shall apply:
Remote operation must be permitted, or not objected to, by the Regulatory Authority of the country where the station is located.

1. The call sign to be used should be the call sign issued by the Regulatory Authority of the country in which the station is located. This applies irrespective of the location of the operator.

2. It should be noted that the CEPT T/R 61-01agreement only applies to people using their own call sign, with the appropriate country prefix, when the operator is actually visiting that country, not for remote operation.

3. Any further requirements regarding the participation of remotely controlled stations in contests or award programs are a matter for the various contest or award program organisers.

(SC11_C4_REC_07) , (VA14_C4_REC_04)

# History

| | | |
|---|---|---|
| 2005 Davos | Introduction of band plan by bandwidth. | Effective 1 January 2006 |
| 2008 Cavtat | Several modifications. | Effective 29 March 2009 |

CW segment extended from 7000 - 7035 kHz to 7000 -7040 kHz.

Narrow band modes, digimodes segment moved and extended from 7035 -7038 kHz to 7040 -7047 kHz.

Narrow band modes, digimodes, segment for automatically controlled stations (unattended) moved and extended from 7038 - 7040 kHz to 7047-7050 kHz.

All modes, digimodes, segment for automatically controlled stations (unattended) moved from 7040-7043 kHz to 7050-7053kHz.

Introduction of SSB preferred contest segments 7060 -7100 kHz and 7130 -7200 kHz

Introduction of Digital Voice Activity Centres.

| | | |
|---|---|---|
| 2011 Sun City | Several modifications. | Effective 17 August 2011 |

CW contest preferred segment 7000-7025 kHz withdrawn.

Segment 29100 - 29200 kHz changed from max. bandwidth of 2700 Hz to max. 6000 Hz.
Introduction of new segment 29100 - 29200 kHz for FM simplex operation (10 kHz channels).
Removal of FM simplex channels 29520 - 29550 kHz and 29610 - 29650 kHz.
Number of FM Repeater channels increased to eight, former FM simplex channels became new repeater input, respectively repeater output channels.

FM repeater channels renumbered, RH1 = 29520 / 29620 kHz, RH8 = 29590 / 29690 kHz

Introduction of FM Simplex Repeater 29610 kHz (parrot, input + output)

| | | |
|---|---|---|
| 2014 Varna | Several modifications. | Effective 26 September 2014 |

Segment 29000 - 29100 kHz: Change from max. bandwidth of 2700 Hz to max. 6000 Hz.
Satellite segment 29300 - 29510 kHz: Removal of downlink restriction

| | | |
|---|---|---|
| 2016 Vienna | Several modifications *.<br>( * to be ratified by General Conference 2017) | Effective 01 June 2016 |

Introduction of narrow bandwidth segment with max. bandwidth of 200 Hz from 3570 kHz to 3580 kHz

Narrow bandwidth mode segment with max. bandwidth of 500 Hz extended by 10 kHz now from 10130 kHz to 10150 kHz.