

# 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
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## 2 200 m Band:

135.7 – 137.8	200	CW, QRSS and narrow band digital modes
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## 630 m 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! (#) maximum bandwidth not specified, 500 Hz suggested.

## 160 m Band:

1 810 – 1 838	200	CW,	1 836 kHz – QRP Centre of Activity
1 838 – 1 840	500	Narrow band modes	
1 840 – 1 843	2 700	All modes – digimodes, (*)	
1 843 – 2 000	2 700	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 Band plan. (Davos 2005)

## 80 m Band:

3 500 – 3 510	200	CW, priority for intercontinental operation	
3 510 – 3 560	200	CW, contest preferred,	3 555 kHz – QRS Centre of Activity
3 560 – 3 570	200	CW,	3 560 kHz – QRP Centre of Activity
3 570 – 3 580	200	Narrow band modes – digimodes	
3 580 – 3 590	500	Narrow band modes – digimodes	
3 590 – 3 600	500	Narrow band modes – digimodes, automatically controlled data stations (unattended)	
3 600 – 3 620	2 700	All modes - digimodes, automatically controlled data station (unattended), (*)	
3 600 – 3 650	2 700	All modes, SSB contest preferred, 3 630 kHz – Digital Voice Centre of Activity, (*)	
3 650 – 3 700	2 700	All modes,	3 690 kHz – SSB QRP Centre of Activity
3 700 – 3 775	2 700	All modes, SSB contest preferred	
			3 735 kHz – Image Centre of Activity
			3 760 kHz – Reg 1 Emergency Centre of Activity
3 775 – 3 800	2 700	All modes, SSB contest preferred, priority for intercontinental operation	

## 60 m Band:

5 351.5 – 5 354.0	500	CW, Narrow band modes – digimodes	See NOTES
5 354.0 – 5 366.0	2 700	All modes, USB recommended for voice operation (##)	See NOTES
5 366.0 – 5 366.5	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.

### 40 m Band:

7 000 – 7 040	200	CW,	7 030 kHz – QRP Centre of Activity
7 040 – 7 047	500	Narrow band modes – digimodes	
7 047 – 7 050	500	Narrow band modes – digimodes, automatically controlled data stations (unattended)	
7 050 – 7 053	2 700	All modes – digimodes, automatically controlled data stations (unattended) (*)	
7 053 – 7 060	2 700	All modes – digimodes	
7 060 – 7 100	2 700	All modes, SSB contest preferred	
			7 070 kHz – Digital Voice Centre of Activity
			7 090 kHz – SSB QRP Centre of Activity
7 100 – 7 130	2 700	All modes,	7 110 kHz – Reg 1 Emergency Centre of Activity
7 130 – 7 175	2 700	All modes, SSB contest preferred,	7 165 kHz – Image Centre of Activity
7 175 – 7 200	2 700	All modes, SSB contest preferred, priority for intercontinental operation	

### 30 m Band:

10 100 – 10 130	200	CW,	10 116 kHz – QRP Centre of Activity
10 130 – 10 150	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 10 120 kHz to 10 140 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.

### 20 m Band:

14 000 – 14 060	200	CW, contest preferred,	14 055 kHz – QRS Centre of Activity
14 060 – 14 070	200	CW,	14 060 kHz – QRP Centre of Activity
14 070 – 14 089	500	Narrow band modes – digimodes	
14 089 – 14 099	500	Narrow band modes - digimodes automatically controlled data stations (unattended)	
14 099 – 14 101		IBP, exclusively for beacons	
14 101 – 14 112	2 700	All modes – digimodes, automatically controlled data stations (unattended)	
14 112 – 14 125	2 700	All modes	
14 125 – 14 300	2 700	All modes, SSB contest preferred	
			14 130 kHz – Digital Voice Centre of Activity
			14 195 kHz ± 5 kHz - Priority for DXpeditions
			14 230 kHz – Image Centre of Activity
			14 285 kHz – SSB QRP Centre of Activity
14 300 – 14 350	2 700	All modes,	14 300 kHz – Global Emergency centre of Activity

### 17 m Band:

18 068 – 18 095	200	CW,	18 086 kHz – QRP Centre of Activity
18 095 – 18 105	500	Narrow band modes – digimodes	
18 105 – 18 109	500	Narrow band modes – digimodes, automatically controlled data stations (unattended)	
18 109 – 18 111		IBP, exclusively for beacons	
18 111 – 18 120	2 700	All modes – digimodes, automatically controlled data stations (unattended)	
18 120 – 18 168	2 700	All modes,	18 130 kHz – SSB QRP Centre of Activity 18 150 kHz – Digital Voice Centre of Activity 18 160 kHz – Global Emergency Centre of Activity

### 15 m Band:

21 000 – 21 070	200	CW,	21 055 kHz – QRS Centre of Activity 21 060 kHz – QRP Centre of Activity
21 070 – 21 090	500	Narrow band modes, digimodes	
21 090 – 21 110	500	Narrow band modes, digimodes, automatically controlled data stations (unattended)	
21 110 – 21 120	2 700	All modes (excluding SSB), digimodes, automatically controlled data stations (unattended)	
21 120 – 21 149	500	Narrow band modes	
21 149 – 21 151		IBP, exclusively for beacons	
21 151 – 21 450	2 700	All modes,	21 180 kHz – Digital Voice Centre of Activity 21 285 kHz – SSB QRP Centre of Activity 21 340 kHz – Image Centre of Activity 21 360 kHz – Global Emergency Centre of Activity

### 12 m Band:

24 890 – 24 915	200	CW,	24 906 kHz – QRP centre of activity
24 915 – 24 925	500	Narrow band modes – digimodes	
24 925 – 24 929	500	Narrow band modes – digimodes, automatically controlled data stations (unattended)	
24 929 – 24 931		IBP, exclusively for beacons	
24 931 – 24 940	2 700	All modes – digimodes, automatically controlled data stations (unattended)	
24 940 – 24 990	2 700	All modes,	24 950 kHz – SSB QRP Centre of Activity 24 960 kHz – Digital Voice Centre of Activity

### 10 m Band:

28 000 – 28 070	200	CW	28 055 kHz – QRS Centre of Activity 28 060 kHz – QRP Centre of Activity
28 070 – 28 120	500	Narrow band modes – digimodes	
28 120 – 28 150	500	Narrow band modes – digimodes, automatically controlled data stations (unattended)	
28 150 – 28 190	500	Narrow band modes	
28 190 – 28 199		IBP, regional time shared beacons	
28 199 – 28 201		IBP, worldwide time shared beacons	
28 201 – 28 225		IBP, continuous duty beacons	
28 225 – 28 300	2 700	All modes – beacons	
28 300 – 28 320	2 700	All modes – digimodes, automatically controlled data stations (unattended)	
28 320 – 29 000	2 700	All modes,	28 330 kHz – Digital Voice Centre of Activity 28 360 kHz – SSB QRP Centre of Activity 28 680 kHz – Image Centre of Activity

29 000 – 29 100	6 000	All modes
29 100 – 29 200	6 000	All modes – FM simplex – 10 kHz channels
29 200 – 29 300	6 000	All modes – digimodes, automatically controlled data stations (unattended)
29 300 – 29 510	6 000	Satellite Links
<b>29 510 – 29 520</b>		<b>Guard channel</b>
29 520 – 29 590	6 000	All modes – FM repeater input (RH1 – RH8)
29 600	6 000	All modes – FM calling channel
29 610	6 000	All modes – FM simplex repeater (parrot - input and output)
29 620 – 29 700	6 000	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 20 m to 10 m.

(\*) - Lowest dial setting for LSB Voice mode: 1 843, 3 603 and 7 053 kHz

(##) - Highest dial setting for USB Voice mode on the 60 m band: 5 363 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 10 MHz 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.

### 630 m band:

Details shown in the band plan above should be understood as “proposed usage.” (VA14\_C4\_Rec\_02)

### 60 m 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 3 500 – 3 510 kHz or 3 775 - 3 800 kHz.

Non-contesting radio amateurs are recommended to use the contest-free HF bands (30, 17 and 12 m) during the largest international contests. (DV05\_C4\_Rec\_07)

Contests should be restricted to 160, 80, 40, 20, 15 and 10 m. That is 60, 30, 17, and 12 m 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 metre 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 61-01 agreement 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 CW segment extended from 7 000 – 7 035 kHz to 7 000 -7 040 kHz Narrow band modes, digimodes segment moved and extended from 7 035 - 7 038 kHz to 7 040 - 7 047 kHz. Narrow band modes, digimodes, segment for automatically controlled stations (unattended) moved and extended from 7 038 – 7 040 kHz to 7 047 – 7 050 kHz All modes, digimodes, segment for automatically controlled stations (unattended) moved from 7 040 – 7 043 kHz to 7 050 – 7 053 kHz Introduction of SSB preferred contest segments 7 060 – 7 100 kHz and 7 130 – 7 200 kHz Introduction of Digital Voice Activity Centres	Effective 29 March 2009
2011 Sun City	Several modifications CW contest preferred segment 7 000 – 7 025 kHz withdrawn Segment 29 100 – 29 200 kHz changed from maximum bandwidth of 2 700 Hz to maximum 6 000 Hz. Introduction of new segment 29100 - 29200 kHz for FM simplex operation (10 kHz channels) Removal of FM simplex channels 29 520 – 29 550 kHz and 29 610 – 29 650 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 = 29 520 / 29 620 kHz, RH8 = 29 590 / 29 690 kHz Introduction of FM Simplex Repeater 29 610 kHz (parrot, input + output)	Effective 17 August 2011
2014 Varna	Several modifications Segment 29 000 – 29 100 kHz: Change from maximum bandwidth of 2 700 Hz to maximum 6 000 Hz Satellite segment 29 300 – 29 510 kHz: Removal of downlink restriction	Effective 26 September 2014
2016 Vienna	Several modifications * (* to be ratified by General Conference 2017) Introduction of narrow bandwidth segment with maximum bandwidth of 200 Hz from 3 570 kHz to 3 580 kHz Narrow bandwidth mode segment with maximum bandwidth of 500 Hz extended by 10 kHz now from 10 130 kHz to 10 150 kHz	Effective 01 June 2016