



International Amateur Radio Union Region 1

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SUBJECT	Status for Amateur Radio at 5 MHz (60 meters) - bandplan proposal		
Society	NRRL	Country:	Norway
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Status for Amateur Radio at 5 MHz (60 meters) - bandplan proposal

Summary

A brief background for the 5 MHz (60 meters) band is given. Norwegian radio amateurs have as of 6 November 2009 been granted secondary status for general amateur radio activity in the band segment 5260 - 5410 kHz. A preliminary Norwegian bandplan has been made, considering non-interference to primary users and fixed frequency amateur radio channels in the band. The national bandplan introduces activity centers and activity segments for CW, digital modes, USB phone, and QRP (all modes). IARU Region 1 is invited to adopt the preliminary Norwegian bandplan as a preliminary recommendation for other countries obtaining permissions for non-channel amateur radio in the 5 MHz (60 meters) band.

Background

ARRL in USA obtained in 1999 an experimental license for 15 stations to conduct SSB and digital data amateur radio contacts in the band 5100 - 5450 kHz, what we may call the 60 meters band. In 2003 FCC granted a permission for ordinary amateur radio traffic in USA on 5 fixed frequencies: 5330,5 -- 5346,5 -- 5366,5 -- 5371,5 and 5403,5 kHz (USB dial frequencies). The permission allows for 50 watts ERP (Effective Radiated Power) with USB (Upper Side Band) telephony and maximum 0 dBd antenna gain (i.e. a dipole antenna or similar).

Next *NRRL* applied in 2000 to use 60 meters for amateur radio in Norway, especially for nation-wide emergency communication. For emergency communication and training, two frequencies in the 5 MHz band were granted: 5410 and 5420 kHz; all ordinary modulation forms, with maximum 100 watt transmitter output power.

Radio amateurs in the UK obtained in 2002 a permission for ordinary amateur radio traffic on specified conditions on 5 fixed frequencies in the 5 MHz band: 5258,5 -- 5278,5 -- 5288,5 -- 5398,5 and 5403,5 kHz. Unfortunately only the last frequency channel corresponded with the USA frequency channel plan. The UK permission allows 200 watts ERP, only USB

telephony. Radio Society of Great Britain, RSGB, has established 4 radio beacons on the frequency 5290 kHz.

Finland has granted in 2004 a permission for amateur radio club stations for experimental amateur radio traffic on 8 fixed frequencies in the 5 MHz band: 5278,6 -- 5288,6 -- 5298,6 -- 5330,6 -- 5346,6 -- 5366,6 -- 5371,6 and 5398,6 kHz with up to 50 watts of transmitter output power. Of these frequency channels, 4 are harmonized with the USA channels, and 3 channels are harmonized with the UK channels.

Norway gave in 2005 a permission for amateur radio club stations for experimental amateur radio traffic on the same 8 fixed frequencies in the 5 MHz band as Finland, but with up to 100 watts transmitter output power USB telephony and CW. This permission was valid from 1 April 2005 through 31 December 2007, and was since extended to 31 December 2012.

Canada has granted a number of experimental channels for amateur radio use.

Germany has granted a permission for an amateur radio beacon on 5195 kHz with the callsign DRA5.

New Zealand has granted two frequency channels to radio amateurs for experimental use.

Iceland has given its radio amateurs a permission for 5 MHz quite similar to the Norwegian permission from 2005, except that the activity is open to all Icelandic radio amateurs.

Denmark has given its radio amateurs the possibility to purchase individual 5 MHz channels for experimental use.

St. Lucia and other countries in the Americas and in Oceania have given radio amateurs permission to use the USA channels on 5 MHz on similar conditions as for USA.

Norway granted 6 November 2009 a permission for ordinary amateur radio use the whole band 5260 - 5410 kHz on secondary basis with all modes (up to 6 kHz bandwidth) and 100 watts transmitter output power.

See the enclosed Worldwide 60 m (5 MHz) Frequency Chart for more details.

This overview shows that more and more countries give the radio amateurs an opportunity on secondary basis to use the 5 MHz band, which IARU early pictured as a possible new amateur radio band in the future. W8GEX has tallied 93 different DXCC-entities to have been active in this band, some of them with a short time-limited permission. This band has proven to be good, because the radio propagation often may be too short in the 80 meters band, and at the same time too long for the 40 meters band, for a given communications distance. A band at 60 meters wavelength, between 80 and 40 meters, is therefore often very useful for making communications within "critical distances". In addition 5 MHz is during the dark part of the day a pleasant DX band:

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WP3UX

VIA: LA4LN

CONFIRMING QSO WITH	DAY	MONTH	YEAR	UTC	MHz	RST	MODE 2-WAY	QSL
LA2V	27	3	08	01:39	5	57	SSB	TXN

DIG#3843 MARAC#139
EP#2441 DMIC#742 DIG#0001
WARR#0407-7205-8408

73
Willem

WILLEM WINKEL
P. O. Box 80251
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The QSL MAN® - W4MPY

First 4P4-LA

Aotearoa New Zealand

ZK4EAM

Confirming QSO with	Date	UTC	Band	Mode	RST
LA2V	4/4/08	0613	60 metres	SSB	44

Grid Loc RE54GG
CQ Zone 32
ITU Zone 60

Tnx and 73. *Mike*

Mike McAlevey
RD2 Waitati 9085
New Zealand

Bandplan

NRRL has seen the necessity to make a national bandplan for the new 60 meter band 5260 - 5410 kHz granted in Norway. Two main considerations have been the underlying philosophy for this new national bandplan:

1. Avoidance of interfering with primary users in the band.
2. Avoidance of interfering with fixed frequency channels granted amateur radio in the band, from contacts between Norwegian stations.

Primary users and fixed frequency channels for amateur radio are spread all over this band. Listening and mapping of primary users have been performed. There have been wishes for activity centers for CW, digital modes, phone, and QRP.

Because of the changing nature of the primary user operations, it is impossible to assign certain narrow fixed *activity centers*. It has been decided to assign an *activity segment* in association with each activity center frequency. The reason is that the activity center frequency may be occupied by primary users, letting radio amateurs use a frequency within the activity segments instead. The activity centers may be a misleading name, because some of these frequencies are not necessarily chosen in the center of the activity segments. The reason for this, is that the chosen activity center frequencies are picked based on listening on the band for the less occupied frequencies.

USB has been chosen as the preferred telephony mode. The reason is that 60 meters is not an exclusive amateur radio band. Primary users use USB, and therefore most administrations have specified USB for amateur radio voice communication in this band. Even though Norwegian radio amateurs now are allowed all modes in this band, NRRL has recommended to use USB for compatibility of voice mode in this band. (It would probably be chaos if USB and LSB were mixed in this band, even though IARU generally has recommended LSB below 10 MHz.)

The NRRL Norwegian activity centers and activity segments chosen are as follows:

5310 kHz CW activity center; 5305 - 5315 kHz activity segment.

5335 kHz QRP activity center; 5335 - 5340 kHz activity segment (all modes).

5355 kHz digital modes activity center; 5350 - 5360 kHz activity segment.

5375 kHz USB telephony activity center; 5375 - 5394 kHz activity segment.

5403,5 kHz USB telephony international calling channel.

NRRL offers this plan as a preliminary IARU Region 1 band plan for 60 meters, for countries obtaining similar privileges as Norway.

17 November 2009

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Attachment:
Worldwide 60 m Frequency Chart.