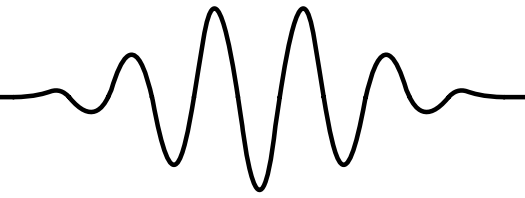




Radio Society of Great Britain

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Reference Data for use in the Foundation Level Examination

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Foundation Licence Parameters

Frequency Bands (in MHz)	Status of allocations in UK to the Amateur Service	Status of allocations in UK to the Amateur Satellite Service	Maximum Peak Envelope Power level in Watts (and dB relative to 1 Watt)
0.1357-0.1378	Secondary. Available on the basis of non-interference to other services inside or outside the UK.	Not allocated	1W (0 dBW) e.r.p.
1.810-1.830	Primary. Available on the basis of non-interference to other services outside the UK.	Not allocated	10W (10 dBW)
1.830-1.850	Primary	Not allocated	10W (10 dBW)
1.850-2.000	Secondary. Available on the basis of non-interference to other services inside or outside the UK.	Not allocated	10W (10 dBW)
3.500-3.800	Primary. Shared with other services	Not allocated	10W (10 dBW)
7.000-7.100	Primary	Primary	10W (10 dBW)
7.100-7.200	Primary	Not allocated	10W (10 dBW)
10.100-10.150	Secondary	Not allocated	10W (10 dBW)
14.000-14.250	Primary	Primary	10W (10 dBW)
14.250-14.350	Primary	Not allocated	10W (10 dBW)
18.068-18.168	Primary	Primary	10W (10 dBW)
21.000-21.450	Primary	Primary	10W (10 dBW)
24.890-24.990	Primary	Primary	10W (10 dBW)
28.000-29.700	Primary	Primary	10W (10 dBW)
50.00-51.00	Primary. Available on the basis of non-interference to other services outside the UK	Not allocated	10W (10 dBW)
51.00-52.00	Secondary. Available on the basis of non-interference to other services inside or outside the UK	Not allocated	10W (10 dBW)
70.00-70.50	Secondary. Available on the basis of non-interference to other services inside or outside the UK	Not allocated	10W (10 dBW)
144.0-146.0	Primary	Primary	10W (10 dBW)
430.0-431.0	Secondary	Not allocated	10W (10 dBW) e.r.p.
431.0-432.0	Secondary. Not available for use within 100km radius of Charing Cross, London (51°30'30"N, 00°07'24"W)	Not allocated	10W (10 dBW) e.r.p.
432.0-435.0	Secondary	Not allocated	10W (10 dBW)
435.0-438.0	Secondary	Secondary	10W (10 dBW)
438.0-440.0	Secondary	Not allocated	10W (10 dBW)
10000-10125	Secondary	Not allocated	1W (0 dBW)
10225-10450	Secondary	Not allocated	1W (0 dBW)
10450-10475	Secondary	Secondary	1W (0 dBW)
10475-10500	Not allocated	Secondary	1W (0 dBW)

Foundation Licence - Amateur Radio Band Plans

14MHz (20m)	Necessary Bandwidth	UK Usage
14,000-14,060 kHz	200 Hz	Telegraphy - contest preferred 14,055 kHz QRS (slow telegraphy Centre of Activity)
14,060-14,070	200 Hz	Telegraphy 14,060 kHz QRP (low power) Centre of Activity
14,070-14,089	500 Hz	Narrow band modes
14,089-14,099	500 Hz	Narrow band modes - automatically controlled data stations (unattended)
14,099-14,101		IBP - reserved exclusively for beacons
14,101-14,112	2.7 kHz	All modes - automatically controlled data stations (unattended)
14,112-14,125	2.7 kHz	All modes (excluding digimodes)
14,125-14,300	2.7 kHz	All modes - SSB contest preferred segment 14,130kHz - Digital Voice centre of activity 14,195 +/- 5 kHz Priority for Dxpeditons 14,230 kHz - Image Centre of Activity. 14,285 kHz - QRP Centre of Activity
14,300-14,350	2.7 kHz	All modes 14,300 kHz Global Emergency Centre of Activity

Important Note:
These band plans have been produced for exam use and are designed to be representative only. These band plans should not be used for on-air activity or as a guide to current practice.

144MHz (2m)	Necessary Bandwidth	UK Usage
144.000-144.025 MHz	2700Hz	All modes - including Satellite downlinks
144.025-144.110 MHz	500Hz	Telegraphy (including EME CW) 144.050 MHz Telegraphy Centre of Activity 144.100 MHz Random MS telegraphy calling (Note 1)
144.110-144.150	500Hz	Telegraphy and MGM 144.138 MHz PSK31 centre of activity EME MGM activity (Note 7)
144.150-144.180	2700Hz	Telegraphy, MGM and SSB
144.180-144.360	2700Hz	Telegraphy and SSB 144.175 MHz Microwave talk-back 144.195-144.205 MHz Random MS SSB 144.200 MHz Random MS SSB calling frequency 144.250 MHz GB2RS news broadcast and slow Morse 144.260 MHz USB. (Note 10) 144.300 MHz SSB Centre of Activity
144.360-144.399	2700Hz	Telegraphy, MGM, SSB 144.370 MHz MGM calling frequency
144.400-144.490		Propagation Beacons only
144.490-144.500		144.4920 MHz +/- 500Hz WSPR beacons and beacon guard band
144.500-144.794	20 kHz	All Modes (Note-8) 144.500 MHz Image Modes centre (SSTV, Fax etc) 144.600 MHz Data Centre of Activity (MGM, RTTY etc) 144.6125 MHz UK Digital Voice (DV) calling (Note 9) 144.625-144.675 MHz See Note 10 144.750 MHz ATV Talk-back 144.775-144.794 MHz See Note 10
144.794-144.990	12 kHz	MGM / Digital Communications 144.800-144.9875 MHz Digital modes (including unattended) 144.8000 MHz Unconnected nets - APRS, UiView etc (Note 14) 144.8125 MHz DV Internet voice gateway (IARU common channel) 144.8250 MHz DV Internet voice gateway (IARU common channel) 144.8375 MHz DV Internet voice gateway (IARU common channel) 144.8500 MHz DV Internet voice gateway (IARU common channel) 144.8625 MHz DV Internet voice gateway (IARU common channel) 144.9250 MHz TCP/IP usage 144.9375 MHz AX25 usage 144.9500 MHz AX25 usage 144.9625 MHz FM Internet voice gateway 144.9750, 144.9875 MHz tbd (Note 11)
144.990-145.1935	12 kHz	FM/DV RV48 - RV63 Repeater input exclusive (Note 2) (Note 5)
145.200	12 kHz	FM/DV Space communications (e.g. I.S.S.) - Earth-to-Space 145.2000 MHz (Note 4) & (Note 10)
145.200-145.5935	12 kHz	FM/DV V16-V48 FM/DV simplex (Note 3) (Note 5) (Note-6) 145.2250 MHz See Note 10 145.2375 MHz FM Internet voice gateway (IARU common channel) 145.2500 MHz Used for slow Morse transmissions 145.2875 MHz FM Internet voice gateway (IARU common channel) 145.3375 MHz FM Internet voice gateway (IARU common channel) 145.5000 MHz FM calling (Note 12) 145.5250 MHz Used for GB2RS news broadcast. 145.5500 MHz Used for rally/exhibition talk-in 145.5750, 145.5875 MHz (Note 11)
145.5935-145.7935	12 kHz	FM/DV RV48 - RV63 Repeater output (Note 2)
145.800	12 kHz	FM/DV Space communications (e.g. I.S.S.) - Space-Earth
145.806-146.000	12 kHz	All Modes - Satellite exclusive

Note 1: Meteor scatter operation can take place up to 26kHz higher than the reference frequency.

Note 2: 12.5kHz channels numbered RV48-RV63. RV48 input = 145.000 MHz, output=145.600 MHz.

Note 3: 12.5kHz simplex channels numbered V16-V46. V16=145.200 MHz.

Note 4: Emergency Communications Groups utilising this frequency should take steps to avoid interference to ISS operations in non-emergency situations.

Note 5: Embedded data traffic is allowed with digital voice (DV)

Note 6: Simplex use only - no DV gateways

Note 7: EME activity using MGM is commonly practiced between 144.110-

Note 8: Amplitude Modulation (AM) is acceptable within the All Modes segment. AM usage is typically found on 144.550MHz. Users should consider adjacent channel activity when selecting operating frequencies

Note 9: In other countries IARU Region-1 recommend 145.375 MHz

Note 10: May be used for Emergency Communications and Community Events

Note 11: May be used for repeaters in other IARU Region-1 countries

Note 12: DV users are asked not to use this channel, and use 144.6125 MHz for calling.

Note 14: 144.800 use should be NBFM to avoid interference to 144.8125 DV Gateways

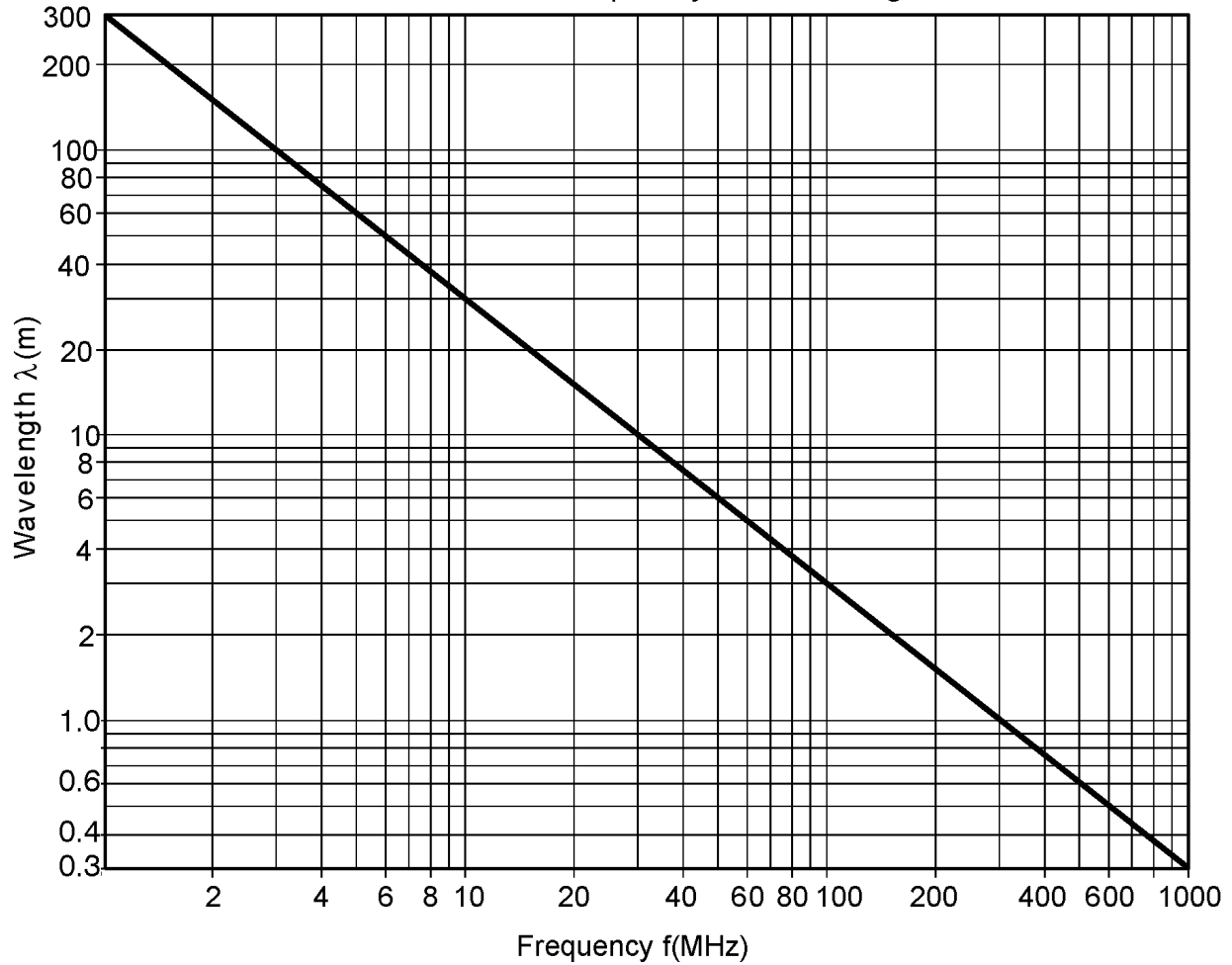
LICENCE NOTE: Beacons may be established for DF competitions except within 50 km of TA 012869 (Scarborough)

**For
Examination
Use ONLY**

General Band Plan Notes

Necessary bandwidth:	For a given class of emission, the width of the frequency band which is just sufficient to ensure the transmission of information at the rate and quality required under specified conditions.
Transmitting frequencies:	The frequencies in the band plan are understood as "transmitted frequencies" (not those of the suppressed carrier or VFO dial setting)
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 500Hz bandwidth, including CW, RTTY, PSK, etc
Digimodes	Any digital mode used within the appropriate bandwidth, for example RTTY, PSK, MT63, etc
Sideband usage	Below 10MHz use lower sideband (LSB). Above 10MHz use upper sideband (USB). However on 5MHz, USB is used.
Digital Voice (DV)	Users of Digital Voice (DV) should check that the channel is not in use by other modes
FM Repeater & Gateway Access	CTCSS Access is recommended. Toneburst access is being withdrawn in line with IARU-R1 recommendations
Beacons	Propagation Beacon Sub-bands are highlighted - Please avoid transmitting in them
MGM	M(achine) G(enerated) M(ode) indicates those transmission modes relying fully on computer processing such as RTTY, AMTOR, PSK31, JTxx, FSK441 and the like. This does not include Digital Voice (DV) or Digital Data (DD)

Conversion chart Frequency to Wavelength



Frequency Allocation Table

Frequency	Use
87.5 - 108.0MHz	Broadcasting
108.0 - 117.975MHz	Aeronautical Radionavigation
117.975 - 137.0MHz	Aeronautical Mobile
137.0 - 138.0MHz	Space Operations & Space Research
138.0 - 144.0MHz	Land Mobile
144.0 - 146.0MHz	Amateur & Amateur Satellite
146.0 - 149.9MHz	Mobile (except aeronautical mobile)
149.9 - 150.05MHz	Radionavigation-Satellite
150.05 - 152.0MHz	Radio Astronomy
152.0 - 156.0MHz	Land Mobile
156.0 - 158.525MHz	Maritime Mobile
158.525 - 160.6MHz	Land Mobile
160.6 - 160.975MHz	Maritime Mobile