



Commission for  
**Communications Regulation**

# **Guidelines**

## **Amateur Station Licence Guidelines**

General Document

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**An Coimisiún um Rialáil Cumarsáide**

**Commission for Communications Regulation**

One Dockland Central, Guild Street, Dublin 1, D01 E4X0, Ireland

Telephone +353 1 804 9600 Fax +353 1 804 9680 Email [info@comreg.ie](mailto:info@comreg.ie) Web [www.comreg.ie](http://www.comreg.ie)

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# 1 Introduction

1. A licence to keep and operate apparatus for wireless telegraphy is required under Section 3 of the Wireless Telegraphy Act 1926, as amended
2. The licensing of wireless telegraphy apparatus for Amateur Stations is governed by the Wireless Telegraphy (Amateur Station Licence) Regulations, Statutory Instrument 192 of 2009 ("The Regulations"). The Regulations detail the terms and conditions under which Amateur Station licences are granted. Applicants should be aware that an Amateur Station Licence granted by ComReg under the Regulations permits the keeping and operation of the apparatus for wireless telegraphy at the location specified in the licence but does not exempt the licensee from having to comply with any other statutory requirements or obligations as may apply.
3. This document sets out the Commission for Communications Regulation's (ComReg) guidelines for persons wishing to apply for an Amateur Station Licence. ComReg encourages all potential applicants to read these guidelines carefully before they submit an Amateur Station Licence application to ComReg.
4. Queries regarding these guidelines or the licensing process can be directed to ComReg's Radio Licensing Operations Team:

Telephone: + 353 (0)1 804 9600

E-mail: [licensing@comreg.ie](mailto:licensing@comreg.ie)

## 2 Radio Amateurs – An Overview

5. The Amateur Service is defined by the International Telecommunication Union (ITU)<sup>1</sup> as: "*A radiocommunication service for the purpose of self training, intercommunication and technical investigations carried out by amateurs, that is, by duly authorised persons interested in radio technique solely with a personal aim and without pecuniary interest.*"
6. Internationally agreed frequencies are set aside for Amateur Station use and ComReg licences Radio Amateurs to operate within these specified frequencies, in the State. Amateur Station frequencies are allocated on either a Primary Service or a Secondary Service basis depending on whether the spectrum is being shared with users or not.
7. An Amateur Station Licence allows the licensee to participate in what is deemed to be a non-commercial hobby. Radio Amateurs are also permitted to provide a means of communications during emergencies or natural disasters, as may be needed. An example of such an emergency group is AREN<sup>2</sup> (Amateur Radio Emergency Network) who operate within Ireland. A licensed Radio Amateur can use licensed radio equipment to communicate with other licensed Radio Amateurs, located in the State or abroad. The mode of communication can be as simple as Morse code transmission, voice, or more complex modes such as video or data.
8. The term "Amateur" as it is used in this regard does not necessarily reflect the skills of the participants, which are often quite advanced, but rather it denotes that communications under an Amateur Station Licence are not permitted for commercial purposes or monetary gain.

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<sup>1</sup> International Telecommunication Union: <http://www.int.int/>

<sup>2</sup> Amateur Radio Emergency Network: <http://aren.ie/news/>

## 3 Licence Information

### 3.1 The Licensee

9. The holder of an Amateur Station Licence must be a legal entity that is legally capable of holding a licence.
10. It remains the responsibility of all Amateur Station licensees to ensure that their licence details, as provided to ComReg, are valid and remain updated<sup>3</sup>.

### 3.2 Amateur Station Licence

11. An Amateur Station Licence does not confer any right of ownership of the frequency spectrum assigned as part of the Licence but merely permits the Amateur Station Licensee to possess and use the licensed wireless telegraphy apparatus in accordance with the Licence conditions, including the technical conditions which are also set out in Annexes 1 and 2 of this document.
12. An Amateur Station Licence is issued for the lifetime of the Licensee and will remain valid for as long as the Licence details remain correct or until such time as the Licence is either revoked by ComReg or surrendered by the Licensee.

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<sup>3</sup> Any personal information which you provide to ComReg will be treated in accordance with the Data Protection Acts, 1988 & 2003



### 3.3 Application Process

13. The correct Licence Application Form must be completed and submitted for each category of Amateur Station licence. The following application forms can be downloaded from ComReg's website<sup>4</sup>:

- Amateur Station Licence: ComReg 09/45(a),
- Amateur Station: Club Licence: ComReg 09/45(b),
- Automatic Station Licence: ComReg09/45(c),
- Additional Authorisation: ComReg09/45(d),
- Amateur Station: Special Event Licence: ComReg 09/45(e), and
- Visitor's Temporary Licence: ComReg 09/45(f).

14. The onus is on each Licence applicant to provide complete and accurate information supporting the application. By way of confirming that this has been done, the "Declaration Form" section of each application form must be completed in all instances.

15. Where an applicant does not permanently reside in Ireland, full particulars of the Amateur Station, including contact details, station details and qualifications must be given. ComReg may only grant a licence for wireless telegraphy apparatus that is installed for use within Ireland.

16. Following the granting of an Amateur Station Licence, the Licensee is permitted to transmit on the frequency bands specified in Annex 1 of this document. Rights of use in additional frequency bands may be granted upon application though such additional rights of use shall only be granted for a maximum period of 12 months and shall expire thereafter. If a licensed Radio Amateur wishes to continue to operate in such additional frequency bands then a new application must be submitted to ComReg.

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<sup>4</sup> These Forms can be found on the ComReg website ([www.comreg.ie](http://www.comreg.ie))

## Required Qualifications

17. In order to obtain an Amateur Station Licence, the applicant must have successfully passed an examination to the ECC T/R 61-02 HAREC (Harmonised Amateur Radio Examination Certificate)<sup>5</sup> standard. This international standard is based on electronic theory, regulatory terms and best practices in radio operation and safety. The exam syllabus has been unified across Europe and is known as T/R61-02 HAREC and can be found along with a sample paper on the Irish Radio Transmitters Society's (IRTS) website: [www.irts.ie](http://www.irts.ie). ComReg does not recognise any other qualification for the purposes of granting an Amateur Station Licence.
18. Where an applicant is seeking a CEPT Class 1 Licence, evidence of having obtained a qualification in the sending and receiving of Morse code<sup>6</sup> must be provided. Evidence of such qualification may be in the form of a recognised equivalent licence from another jurisdiction, provided the qualification is clearly indicated.
19. Under CEPT Recommendation T/R 61-01, ComReg also recognises licences granted by other National Regulatory Authorities, on condition that such licences meet the specified standard of T/R 61-02. ComReg does not recognise Novice or Intermediate licences as suitable qualifications.
20. Under agreement with ComReg, Radio Amateur examinations are managed in Ireland by the IRTS and ComReg requires that at least one exam be held annually. The IRTS also manages the examination of Morse code. Candidates interested in sitting the examination on Radio Theory for Amateur Radio should contact the IRTS Examination Board for further information (PO Box 462, Dublin 9, or visit their website [www.irts.ie](http://www.irts.ie)).

## Licence Fees Payable

21. The appropriate Amateur Station Licence fee must be enclosed with each application form:

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<sup>5</sup> The Electronic Communications Committee Recommendation has set an agreed standard that enables national authorities to readily identify whether an individual is suitably qualified. The Electronic Communications Committee consists of the members of European Conference of Postal and Telecommunications Administrations (CEPT) and this has a permanent office which is the European Communications Office [www.ero.dk](http://www.ero.dk)

<sup>6</sup> For details in relation to the required standard see Annex 2

22. Each new Amateur Station Licence shall incur a once off fee of €100 with the exception of the following categories of Licence applicants shall incur a reduced fee of €30:

- new licences issued to persons aged 65 years and over;
- new licences issued to persons who are in receipt of a Disability Allowance or Pension;
- Temporary Licences as below; (for further information see Section 6)
  - Special Events Licence; or Additional Authorisations; or Visitors' Temporary Licence.

23. Where an Amateur Station Licence applicant is in receipt of a Disability Allowance or Pension, proof must be provided at the time of application in order to qualify for the reduced €30 Licence fee. Copies of appropriate documentation should therefore accompany the application. Please do not send original documents.

24. All Amateur Station Licence applications should be submitted to:

Licensing Operations (Amateur Station Section)

The Commission for Communications Regulation

One Dockland Central

Guild Street

Dublin 1

D01 E4X0

### **3.4 Licence Duration**

25. All Amateur Station Licences, with the exception of temporary assignments, are issued for the lifetime of the Licensee. In accordance with the Regulations, all licensees are required to confirm to ComReg each and every 5 years that their Licence details are up to date and correct.

26. Under the Regulations, it is the responsibility of Licensees to inform ComReg of any changes to the details relating to their Licences, as granted, such as their address or contact details, as soon as such changes occur and no later than 28 days after they have occurred.

### **3.5 Amendments to a Licence**

27. An amendment to an Amateur Station Licences is required if the Amateur Station address changes, as the details of the Licence would need to be updated to reflect this change. Any changes to licence details should be submitted to ComReg on the Form ComReg 09/45(a) along with the appropriate fee.

### **3.6 Cancellation of a Licence**

28. An Amateur Station Licence may be cancelled at the written request of the Licensee. Licence fees will not be refunded in the event of such cancellation.

### **3.7 Revocation of a Licence**

29. ComReg may suspend or revoke an Amateur Station Licence where there is serious or repeated non-compliance by the Licensee with the conditions of the Licence, pursuant to Regulation 8 of the Regulations. Licence fees will not be refunded in the event of such revocation.

## 4 Licence Types Available

30. This section describes the types of Amateur Station Licences which are available and explains the application requirements for each Licence type and the applicable terms and conditions.

### 4.1 CEPT Class 1 & CEPT Class 2 Licences

31. ComReg distinguishes between types of Amateur Station Licences while ComReg also acknowledges the existence of one CEPT Examination that is conducted to the ECC T/R 61-02<sup>7</sup> HAREC Standard and that all Radio Amateur Licences granted by ComReg meet that standard.

32. ComReg will issue a holder of a Harmonised Amateur Radio Examination Certificate (HAREC) ECC T/R 61-02 qualification with either a CEPT Class 1 Licence (if evidence of the Morse qualification is provided) or a CEPT Class 2 Licence (if no evidence of the Morse qualification is provided). Morse speed requirements can be found in Annex 2 of this document.

33. All Amateur Station Licensees have the same rights and entitlements as set out in Annex 1 of this document. (i.e. as to frequency bands, power limits, etc).

### 4.2 Club Licence

34. A Club Licence is issued to a group of individual Radio Amateurs who have a common interest. There are a number of radio Amateur Clubs within Ireland who promote Amateur radio and which run preparatory courses for the Radio Amateur exam. A specific individual must be nominated to act as the named Licensee on behalf of any club and Club Licences will be issued in the name of such nominated individuals. However, all rights and entitlements granted under a Club Licence, including any assigned frequency rights or call-signs, shall vest in the club itself and not in the nominated individual holder of the Club Licence. The nominated individual holder of the Club Licence, in addition to being the holder of the Club Licence, must also hold a valid Amateur Station Licence in their own name and must agree to be responsible for the operation of all radio equipment which is operated under the Club Licence.

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<sup>7</sup> The Electronic Communications Committee Recommendation has set an agreed standard that enables national authorities to readily identify whether an individual is suitably qualified. The Electronic Communications Committee consists of the members of European Conference of Postal and Telecommunications Administrations (CEPT) and this has a permanent office which is the European Communications Office [www.ero.dk](http://www.ero.dk)

35. Applicants for a Club Licence are requested to submit details of the Amateur Station and Club Licence Application from Comreg 09/45(b) which can be downloaded from the ComReg website [www.comreg.ie](http://www.comreg.ie)

### **4.3 Automatic Stations**

36. ComReg may grant an Automatic Station Licence to a Club Licence holder for the operation of a Repeater Station, an Internet Gateway, a Beacon or similar Amateur Stations. Each station type is listed in Table 1 below.
37. Automatic Stations are often located on high sites which allow Radio Amateurs to use low power radios to get coverage over the widest possible area. Automatic Stations can be linked together, either by radio or by the use of certain internet connections, so as to form a wider network.
38. An application for an Automatic Station Licence must be made by completing and submitting Application form 09/45(c). Further details on the Automatic Station call-sign format can be found in Section 7.3.
39. Automatic Stations do not include Automatic Position Reporting (APRS) which is considered to be a mode of operation and is included as part of an individual Station.

Station Type	Characteristics
Voice Repeater	A voice repeater station is a radiocommunication station that receives a weak (low power) radio signal and retransmits it at a higher power, thereby enabling the signal to travel greater distances without degradation. Voice repeaters instantaneously retransmit the transmission of another Amateur Station on a different channel or channels.
Digital Voice Repeater	A digital voice repeater station is a radiocommunication station that operates on the same principle as the voice repeater, in that it is used to increase the transmission coverage of an Amateur Station.
Amateur Television Repeater	ATV repeaters are specifically used in connection with Amateur TV; Fast Scan (FSTV) or Slow Scan (SSTV) systems. These repeaters often play a very important role with Amateur television for extending coverage range.
Beacon	A beacon is a radiocommunication transmitter used to confirm the propagation characteristics on the particular frequency it is licensed for. These Beacons are co-ordinated internationally through the IARU
Internet Gateway	An internet gateway is a radiocommunication station that connects two or more Amateur Stations together at geographically separate locations.
Others	Amateur Stations that do not fall under the above headings, such as remote operation, can still be applied for once all the relevant technical parameters, interconnects between other Amateur Stations etc. are outlined to ComReg using the Automatic Station Application form ComReg 09/45(c).

**Table 1 Types of Automatic Stations**

# 5 Temporary Licences

## 5.1 Visitors Temporary Licence

40. Licensed Radio Amateurs from countries that have not signed CEPT Agreement T/R 61-01 need to obtain a Visitors Temporary Licence from ComReg before they may operate in the State. Visitors Temporary Licences are issued on the basis of the visiting Radio Amateur's home licence and permit them to operate Amateur Station equipment in the State. A Visitors Temporary Licence will only be granted to those persons that have reached a standard equivalent to the Irish CEPT Class 2 (this is the CEPT / HAREC T/R 61-02). ComReg does not recognise novice or intermediate licences as being suitable qualifications for the purpose of being granted a Visitors Temporary Licence.
41. Applicants seeking a Visitors Temporary Licences must complete and submit Application Form ComReg09/45(f) together with the required fee of €30. If the application is approved, the applicant will be granted a Visitors Temporary Licence and will be issued with a Visitor's Irish call-sign, the format of which is detailed in Section 7.4.
42. A Visitors Temporary Licence is issued for a maximum period of twelve months and renewal of this licence type is not permitted.

## 5.2 Special Events

43. Many Radio Amateur Clubs and individual Amateur Station Licensees operate Amateur Stations to mark special events or occasions. These Licensees may, on request, be issued with a special call-sign for a temporary period (i.e. usually for a period of a couple of days to a week). Radio Amateurs seeking such a special temporary call-sign must apply to ComReg at least one month before the event, using ComReg's Special Event Application Form ComReg 09/45(e).
44. The format of this type of call-sign is detailed in Section 7.5.



### **5.3 Additional Authorisations**

45. Amateur Station Licensee's may apply for additional frequency bands and / or power levels over those specified in Annex 1. As the additional authorisation frequency bands are allocated to Amateurs on a Secondary basis, Radio Amateurs must operate on a non-protected, non-interference basis.
46. Such Additional Authorisations can only be permitted to applicants who hold a current, valid Amateur Station licence.
47. Applications must be submitted to ComReg on the Additional Authorisation Form ComReg 09/45(d). All Additional Authorisations are issued by ComReg for a maximum period of twelve months.

## 6 Allocation of Call-Signs

48. An Amateur Station call-sign is a unique identifier that is assigned to each Licensed Amateur Station. ComReg is responsible for assigning such call-signs which must follow an internationally recognisable format as set down by the ITU.
49. 'EI' call-signs are used for Amateur Stations located on Ireland's mainland while 'EJ' call-signs are used for Amateur Stations located on any of the islands. The call-sign format for each licence type is described further below.
50. An Amateur Station call-sign forms part of an Amateur Station Licence and all call-signs are issued for the lifetime of the Amateur Station Licensee. The only occasion when a call-sign may change is when an Amateur is moving from a CEPT Class 2 licence to a CEPT Class 1 Licence.
51. The only exception to the rule that Amateur Station call-signs issue for the lifetime of the Amateur Station Licensee is that a "silent key" call-sign may be transferred to an immediate next of kin of a deceased Amateur Station Licensee. Such a transfer will only be permitted where that the call-sign in question had not lapsed within the lifetime of the deceased Amateur Station Licensee and an application to obtain the call-sign is made within five years<sup>8</sup> of the date of death of the Licensee. "Next of kin" for these purposes means a child, grandchild, sibling or spouse of a deceased Amateur Station Licensee. Further, a next of kin who applies for such a call-sign must hold a valid Amateur Station Licence or have passed a HAREC exam.
52. The exceptions to the lifetime duration of Amateur Station Licence call-signs are Visitors Temporary Licences, Additional Authorisations or Special Event Licences. All of these types of licences have maximum durations of 12 months and these licences and the assigned call-signs will expire on the date specified on the licence documents.

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<sup>8</sup> All files relating to cancelled licences are destroyed after five years in accordance with ComReg's Data Protection guidelines

## 6.1 CEPT Class 1 and Class 2

53. ComReg assigns call-signs for CEPT Class 1 and CEPT Class 2 licences sequentially which means that particular call-signs for individual Amateur Station Licensees cannot be requested.

54. ComReg does not re-issue lapsed call signs.

55. Where an Amateur Station Licence is surrendered or cancelled the call-sign will be permanently revoked. Call-signs that have been revoked will not be re-issued

56. CEPT Class 1: Begins with EI or EJ followed by a single digit (i.e. 2-9), one alpha numeric character (i.e. 0-9 or A-Z) and a single letter (A-Z).

An example would be EI-2-C1-C2

National	Number	C1	C2
EI or EJ	2 to 9	0-9 or A-Z	A-Z

57. CEPT Class 2: Begins with EI or EJ followed by a single digit (i.e. 2-9) and three characters (two alphanumeric, C1 and C3 along with a third character (A-Z). An example would be. EI-2- C1-C2-B

National	Number	C1	C2	C3
EI or EJ	2 to 9	0-9 or A-Z	0-9 or A-Z	B

## 6.2 Club Call-sign

58. Call-signs for Amateur Club Licences can be requested by individual clubs and the call-sign format must follow the format that is set by the ITU.

The call-sign begins with EI and then is followed by a single number followed by up to four characters the last of which must be a letter

National	Number	C1	C2	C3	C4
EI	0 to 9	0-9 or A-Z	0-9 or A-Z	0-9 or A-Z	A-Z

## 6.3 Automatic Stations

National	Band Identification Digit	Location	Last Letter
EI	As below	Two letters uniquely identifying the location of the Automatic Station (see below)	See below

### Band Identification Digit

Band Identification Digit	Application Band
0	28 MHz
1	Not currently used
2	145 MHz
3	Not currently used
4	70 MHz
5	5 MHz
6	50 MHz
7	435 MHz
8	1300 MHz
9	10000 MHz

### Location Examples

Letter	Location	Letter	Location	Letter	Location
TK	Truskmore	FX	Farmers Cross	CC	Clermont Carn
ML	Mount Leinster	TB	Tonabrocky	KH	Keeper Hill
MG	Mullaghanish	TR	Three Rock	KP	Kippure

## Last Letter

Station Type	Letter	Station Type	Letter	Station Type	Letter
Digital Voice	D	Digital Packet	P	Cross Band	X
Internet Gateway	G	Analogue Voice	R		
Beacon	H	TV	T		

Band Identification Digit applies to the transmit frequency of the Cross Band repeater.

## 6.4 Visitors

59. The CEPT call-sign format for visitors will be EI or EJ followed by a single digit, the character 'V' and two alpha numeric characters: EI-2- V-C2-C3

National	Number	C1	C2	C3
EI or EJ	2 to 9	V	0-9 or A-Z	A-Z

## 6.5 Special Event

60. The call-sign format for special events will be: EI or EJ followed by a single digit, then up to a maximum number of four alphanumeric characters followed by a single character which must be a letter.

National	Number	C1	C2	C3	C4	C5
EI or EJ	0 to 9	0-9 or A-Z	0-9 or A-Z	0-9 or A-Z	0-9 or A-Z	A-Z

## 7 Modes of Operation

61. There are many modes that a Radio Amateur can operate on, including SSB, FM, PSK, RTTY, and ATV which are permitted as standard on both CEPT Class 1 and CEPT Class 2 licences. No additional authorisation is required to operate on these modes but the permitted frequency bands specified in Annex 1 must be adhered to.
62. Full details on permitted modes (i.e. narrowband modes, digimodes etc) are contained in Annex 1 of this document.

### 7.1 Land Based Mobile Station Operation

63. An Amateur Mobile Station is one where the Amateur Station is installed in a vehicle. For land-based mobile operation, the call-sign should be suffixed with "/M" (pronounced "slash mobile" on phone). Details of permitted frequencies and power levels can be found in Annex 1 of this document.
64. The particulars of an Amateur Mobile Station's location shall be sent at the beginning and end of the establishment of communications with each separate Amateur Station or at intervals of every thirty minutes, whichever is the more frequent.
65. An Amateur Mobile Station may not be established or used at sea (other than as part of Maritime Mobile Operation) or within any estuary, dock or harbour or in the vicinity of an airport or radio navigation installation.

### 7.2 Maritime Mobile Station Operation

66. Licensees who wish to operate an Amateur Mobile Station on water must use Maritime Mobile and the call-sign should be suffixed with "/MM" (pronounced "slash maritime mobile" on phone).
67. Subject to the approval of the Ships Master and / or owner, Maritime Mobile operation may be permitted on a maritime vessel (boat, ship, dinghy, etc) and is restricted to the frequencies specified in Annex 1. Please note that in addition to all seas falling within the jurisdiction of the State, use of Amateur Radio equipment on all waterways within the Irish jurisdiction, including all rivers and lakes, also constitutes Maritime Mobile Operation for the purposes of an Amateur Station Licence.

68. Licensed Irish Amateurs or Visitors, operating in Irish or in International Waters, are subject to the conditions of their Irish Amateur Station Licences and to all other laws to which the particular vessel, depending upon its location, is subject.
69. When operating a Maritime Mobile Station the geographical position of the vessel shall be announced at the beginning and end of the establishment with each separate Amateur Station or at intervals of 30 minutes, whichever is more frequent. This geographical position must be included in the logbook when recording communications (see Section 9).
70. An Amateur Station shall not be used for the sending or receipt of any message which would, if there were no Amateur Station on the vessel, be sent by means of the vessel's wireless telegraphy station.
71. An Amateur Station shall not interfere with the wireless telegraphy station on the vessel. Should such interference occur, use of the Amateur Station shall cease until the cause of the interference has been remedied.

## 8 Requirements for Logbook keeping

72. It is a condition of any Amateur Station Licence that a detailed logbook must be kept and maintained at the Amateur Station. The logbook must be kept up to date and shall be made available for inspection at the request of a duly authorised Officer of the Commission for Communications regulation.

Each logbook should record the following information:

1. dates of transmission;
2. the times (in UTC standard time), during each day of the first and last transmissions from the Station and changes made to the frequency band, mode of emission or power;
3. frequency band of transmission;
4. mode of transmission;
5. power level (dBW or W);
6. initial calls ("CQ" calls) whether or not they are answered;
7. the call-sign of licensed Amateur Stations with which communications have been established; and



## Annex: 1 Amateur Station Operational Bands/Powers/Modes Permitted

A 1.1 All Amateur Station frequency bands have maximum power levels and permitted operational modes that must be adhered to.

A 1.2 Other than the recognition of Morse, both CEPT Class licence types have access to the same frequency bands as listed in the table below.

### Amateur Station Authorised Frequencies

A 1.3 The frequency bands specified in Table 1 below are available for both CEPT Class 1 & CEPT Class 2 Licence.

Frequency (kHz)	Status of Allocation	Peak Envelope Power Watts (dBW)	Emission Classification	Modes	Notes
135.7-137.8	Secondary	1W (0 dBW)	A1A, J3E, G1B	CW, QRSS and narrow band digital modes.	
472.0-479.0	Secondary	5W (7 dBW)	A1A, J3E, G1B	CW, QRSS and narrow band digital modes	See notes below
1810-1850	Primary	400W (26 dBW)	A1A, A2A, A3E, R3E, H3E, J3E, F1B, F2B, F3E, G1B	CW, Narrow band modes	
1850-2000	Primary	10W (10 dBW)	A1A, A2A, A3E, R3E, H3E, J3E, F1B, F2B, F3E, G1B	All modes - including digimodes	
3500-3800	Primary	400W (26 dBW)	A1A, A2A, A3E, R3E, H3E, J2B, J3E, J2F F1B, F2B, F3E, G1B	All modes - including digimodes & Automatic stations	Maritime Mobile Permitted
5351.5-5366.5	Secondary	15W (12 dBW)	A1A, A2A, A3E, R3E, H3E, J3E, F1B, F2B, F3E	All modes - including digimodes	

Frequency (kHz)	Status of Allocation	Peak Envelope Power Watts (dBW)	Emission Classification	Modes	Notes
7000-7100	Primary	400W (26 dBW)	A1A, A2A, A3E, R3E, H3E, J2B, J3E, J2F F1B, F2B, F3E, G1B	All modes - including digimodes & Automatic stations. AMSAT	Maritime Mobile Permitted
7100-7200	Primary	400W (26 dBW)	A1A, A2A, A3E, R3E, H3E, J2B, J3E, J2F F1B, F2B, F3E, G1B	All modes	Maritime Mobile Permitted
10100-10130	Secondary	400W (26 dBW)	A1A	CW	Morse Only
10130-10150	Secondary	400W (26 dBW)	A2A, J2B, J2F, F1B, F2B, G1B	Narrow Band modes - digimodes	See notes below
14000-14350	Primary	400W (26 dBW)	A1A, A2A, A3E, R3E, H3E, J2B, J3E, J2F F1B, F2B, F3E, G1B	All modes - including digimodes & Automatic stations. AMSAT	Maritime Mobile Permitted
18068-18168	Primary	400W (26 dBW)	A1A, A2A, A3E, R3E, H3E, J2B, J3E, J2F F1B, F2B, F3E, G1B	All modes - including digimodes & Automatic stations. AMSAT	Maritime Mobile Permitted
21000-21450	Primary	400W (26 dBW)	A1A, A2A, A3E, R3E, H3E, J2B, J3E, J2F F1B, F2B, F3E, G1B	All modes - including digimodes & Automatic stations. AMSAT	Maritime Mobile Permitted

Frequency (kHz)	Status of Allocation	Peak Envelope Power Watts (dBW)	Emission Classification	Modes	Notes
24890-24990	Primary	400W (26 dBW)	A1A, A2A, A3E, R3E, H3E, J2B, J3E, J2F F1B, F2B, F3E, G1B	All modes - including digimodes & Automatic stations. AMSAT	Maritime Mobile Permitted
28000-29700	Primary	400W (26 dBW)	A1A, A2A, A3E, R3E, H3E, J2B, J3E, J2F F1B, F2B, F3E, G1B	All modes - including digimodes Automatic stations, AMSAT	Maritime Mobile Permitted. (See notes below)

Frequency (MHz)	Status of Allocation	Peak Envelope Power Watts (dBW)	Emission Classification	Modes	Notes
50.000-52.000	Secondary	100W (20 dBW)	A1A, A2A, A3E, R3E, H3E, J2B, J3E, J2F F1B, F2B, F3E, G1B	All modes	
70.125-70.450	Secondary	50W (17 dBW) Fixed Operation Only	A1A, A2A, A3E, R3E, H3E, J2B, J3E, J2F F1B, F2B, F3E, G1B	All modes	For Mobile Operation Max Power is 25W (14 dBW)
144.000-146.000	Primary	400W (26 dBW)	A1A, A2A, A3E, R3E, H3E, J2B, J3E, J2F F1B, F2B, F3E, G1B	All modes - including Automatic Stations, RTTY, AMSAT	Maritime Mobile Permitted
430.000-432.000	Primary	50W (17 dBW)	A1A, A2A, A3E, R3E, H3E, J2B, J3E, J2F F1B, F2B, F3E, G1B	All modes. - including AMSAT, FSTV	
432.000-440.000	Primary	400W (26 dBW)	A1A, A2A, A3E, R3E, H3E, J2B, J3E, J2F F1B, F2B, F3E, G1B	All modes - including digimodes, SSTV	
1240-1300	Secondary	158W (22 dBW)	A1A, A2A, A3E, R3E, H3E, J2B, J3E, J2F F1B, F2B, F3E, G1B	All modes - including digimodes, SSTV, FSTV	
2300-2400	Secondary	158W (22 dBW)	A1A, A2A, A3E, R3E, H3E, J2B, J3E, J2F F1B, F2B, F3E, G1B	All modes including digimodes, ATV	

Frequency (MHz)	Status of Allocation	Peak Envelope Power Watts (dBW)	Emission Classification	Modes	Notes
5570-5650	Secondary	158W (22 dBW)	A1A, A2A, A3E, R3E, H3E, J2B, J3E, J2F F1B, F2B, F3E, G1B	All modes - including FSTV	
5650.00-5850.00	Secondary	158W (22 dBW)	A1A, A2A, A3E, R3E, H3E, J2B, J3E, J2F F1B, F2B, F3E, G1B	All modes - including FSTV	
10000-10500	Secondary	158W (22 dBW)	A1A, A2A, A3E, R3E, H3E, J2B, J3E, J2F F1B, F2B, F3E, G1B	All modes - including narrowband modes, digimodes, FSTV	10450-10500 MHz used for Amateur Satellite Service. (See notes below)
24000-24050	Primary	50W (17 dBW)	A1A, A2A, A3E, R3E, H3E, J3E, F1B, F2B, F3E, G1B	All modes - including digimodes, SSTV, FSTV, AMSAT	
47000-47200	Primary	50W (17 dBW)	A1A, A2A, A3E, R3E, H3E, J3E, F1B, F2B, F3E, G1B	All modes - including narrowband and AMSAT	

**Notes:**

- For designation of emission classification please refer to ComReg(08/34)<sup>9</sup>
- With the exception of the bands 135.7-137.8 kHz the Maximum Peak Envelope Power is the power measured at the output of the transmitter or amplifier

<sup>9</sup> ITU Emission Designators: [http://www.comreg.ie/\\_fileupload/publications/ComReg0834.pdf](http://www.comreg.ie/_fileupload/publications/ComReg0834.pdf)

- In the band 472.0 - 479.0 kHz Stations in the Amateur service shall not cause harmful interference to, or claim protection from, stations of the aeronautical radionavigation service or stations of the Maritime service. The Amateur service shall ensure that no harmful interference is caused to the frequency 0.490 MHz which is used exclusively for the transmission by coast stations of navigational and meteorological warnings and urgent information to ships
- In the band 10130-10150 kHz all narrowband digimodes within the bandwidth limit of 500Hz are permitted. News Bulletins are not permitted within this frequency range. SSB is permitted but only during emergencies involving immediate safety of life and by the stations directly involved in handling emergency traffic.
- In the Band 10.000-10.500 GHz the Primary allocation is to the Fixed Service and as such radio Amateurs may not use the portion of the band between 10.270-10.300 GHz.
- Operation on islands which fall within harbour areas (e.g. Spike Island in Cork harbour) will be restricted to 17dBW.

#### **Definitions:**

- All modes: CW (Morse), SSB and those modes listed by the IARU as Centre of Activities. When using AM, particular consideration must be given to adjacent channel users.
- Narrowband modes: All modes up to a maximum bandwidth of 500 Hz, including CW RTTY, PSK etc.
- Image mode: Any analogue or digital modes such as SSTV, which remains within the appropriate bandwidths.
- Digimodes: Any digital mode such as RTTY, PSK etc. within the bandwidths as specified by the IARU.
- Sideband Modes: The convention for phone operation is that below 10 MHz lower sideband (LSB) is used, above 10 MHz upper sideband (USB) is used.

Mobile operation: The Maximum Power at the output of the transmitter or amplifier shall be 17 dBW, with the exceptions of 70.125 - 70.450 MHz where the Maximum Power shall be 14 dBW.

- Maritime Mobile: The Maximum Power permitted when in maritime mobile mode shall be 10 dBW.

## Additional Authorisation Required

A 1.4 An individual application form - Additional Authorisation ComReg 09/45(d) - must be submitted to use any of these additional authorisation bands below which are for special events or for temporary experimental purposes.

Frequency (MHz)	Status of Allocation	Maximum Peak Envelope Power Watts (dBW)	Emission Classification	Modes	Notes
5.000 – 5.500	Secondary	200W (23 dBW)	A1A, J3E, G1B	CW, SSB, PM	Only the following Spot Frequencies are permitted for transmission: 5.280 MHz; 5.300 MHz; 5.332 MHz; 5.348MHz; 5.400 MHz and 5.405 MHz
1300-1304	Secondary	0W (0 dBW)	A1A, A2A, A3E, R3E, H3E, J2B, J3E, J2F F1B, F2B, F3E, G1B		Restricted to Repeater Operation Only
2400-2450	Secondary	25W (14 dBW)	A1A, A2A, A3E, R3E, H3E, J2B, J3E, J2F F1B, F2B, F3E, G1B	AMSAT	Restricted to Satellite Operation Only

A 1.5 Irish Licensed Amateur Stations may apply for frequencies and powers above those listed for particular special occasions, see Section 6.3.

## **Annex: 2 Technical Conditions of the Amateur Station**

A 2.1 This section specifies the general conditions attached to a Licence issued under the Wireless Telegraphy (Amateur Station Licence) Regulations 2009 (S.I. 192 of 2009).

A 2.2 The Amateur Station licence conditions detail the characteristics of the licensed wireless telegraphy apparatus that need to be considered for the purposes of ensuring that no harmful interference is caused to other licensed services and that the Amateur Station or any part thereof is constructed, modified, maintained and operated in such a manner as to ensure that the safety of persons or property is not endangered. The conditions do not include detailed equipment specifications.

A 2.3 Nothing in these technical license conditions shall exempt an Amateur Station licensee from having to obtain such other consents, permissions, authorisations, or licences as may be necessary in order to possess and operate a licensed Amateur Station.

### **System Engineering**

A 2.4 The mechanical and electrical construction of the Amateur Station installation shall be in accordance with best practice.

A 2.5 The practice of good system engineering is a necessary requirement to minimise the potential for interference to, or from, radio-communication services operating in accordance with the Irish Table of Frequency Allocations.

### **Equipment Construction**

A 2.6 The Amateur Station should have all controls, meters, indicators and terminals clearly labelled. Details of the main and any auxiliary power supply from which the wireless telegraphy equipment is intended to operate shall be clearly indicated.

A 2.7 Controls which, when wrongly adjusted or change the system parameters shall be accessible to qualified personnel only.

A 2.8 All wireless telegraphy equipment shall be labelled with the manufacturer's trademark, type designation and serial number.



A 2.9 Licensed Radio Amateurs shall ensure that home constructed, modified and vintage wireless telegraphy equipment is operated and maintained in such a manner as to minimise the potential for interference to radio-communication services operating in accordance with the Irish Table of Frequency Allocations which can be found on ComReg's website

A 2.10 No modifications shall be made to any transmitter or RF Power Amplifier enabling operation on bands other than those previously specified in Annex 1 to this document.

A 2.11 Licensed Radio Amateurs shall have a device capable of measuring Standing Wave Ratio (SWR) and an accurate method to ensure that operations take place on the correct frequency. In the case of 'home constructed' equipment a simple frequency counter or synthesised main receiver/ transceiver would suffice.

## Non-Ionising Radiation

A 2.12 Licensed Radio Amateurs shall ensure that non-ionising radiation emissions from their Amateur Stations are within the limits specified by the guidelines published by the International Commission for Non-Ionising Radiation Protection ("ICNIRP").

A 2.13 Particular attention should be paid to the location of antennas and feeders in regards to their proximity to habitations and areas accessible to third parties.

A 2.14 Care should be taken when operating at temporary locations for the purposes of contests, expeditions and during mobile use. When a Mobile Amateur Station is used from a static position the licensed Radio Amateur should consider the use of reduced power, in particular where there is a possibility that a third party may come into contact with the antenna.

## Spurious Emissions

A 2.15 The following limits for spurious emissions are taken from the Radio Regulations of the ITU and concern the Amateur Service.

A 2.16 Transmitters Installed on or before 1st January 2003

Frequency band containing the assignment	Attenuation (Note 1)
9kHz -30MHz	40dB, 50mW (Notes 2 and 3)
30MHz-235MHz above 25W (r.m.s.)	60dB or1mW (Note 4)

Frequency band containing the assignment	Attenuation (Note 1)
25W (r.m.s.) or less	40dB or 25 $\mu$ W
235-960MHz above 25W (r.m.s.)	60dB
25W (r.m.s.) or less	40dB
960MHz-17.7GHz above 10W (r.m.s.)	50dB
10W (r.m.s.) or less	100 $\mu$ W

### Notes

- 1. For any spurious component, the attenuation (mean power within the necessary bandwidth relative to the mean power of the spurious component concerned) shall be at least that specified below and the absolute mean power levels given shall not be exceeded.
- 2. For mobile transmitters which operate below 30 MHz any spurious component shall be attenuated by at least 40dB without exceeding the value of 200mW, but every effort should be made to comply with the specified 50mW limit.
- 3. For hand portable equipment having a power output of less than 5W (r.m.s.) the attenuation of spurious emissions shall be a minimum of 30dB every effort should be made to comply with the specified 40dB limit.
- 4. The limit for spurious emissions shall be 10mW in Primary bands and 1mW in secondary bands.
- Transmitters Installed after 1st January 2003

Service	Attenuation (dB)
Amateur Service all bands	43+10log(P) or 50dB whichever is less stringent <sup>10</sup>

<sup>10</sup> Attenuation in dB below the power supplied to the antenna feeder

## Power Levels

A 2.17 All references to power for an Amateur Station refer to Watts (r.m.s.) or dB relative to 1W (r.m.s.).

$$\text{dB (W)} = 10\log (P_o/1)$$

Where  $P_o$  is the output power of the transmitter or R.F. Power Amplifier in Watts.

A 2.18 All references to power for an Amateur Station power will be measured at the output of the transmitter or R.F. Power Amplifier, if one is present. For measurement of power in SSB mode; a 1 kHz tone shall be used and will be adjusted to peak the modulated signal and keeping distortion within the specification of the transmitter.

## Morse code Requirements

A 2.19 In order to obtain a CEPT Class 1 licence, both the Radio Theory Exam and the Morse speed test must be passed. The minimum Morse code speed permitted is detailed below.

Emission Designation	Speed, send and receive (Words Per Minute)	Notes
A1A	5 wpm	The send and receive speed will be a minimum of 5 words per minute or the speed resulting from agreement by either CEPT or the ITU whichever is the lesser value.