



Radio Frequency Spectrum Regulation for Radio Amateurs

Issue 1 dated 1 January 2013

This document does not replace the full set of regulations published by ICASA on 31 March 2011. It contains all the regulations that are applicable to an Amateur Radio Station. The numbers used in the original document are maintained for easy future reference

Definitions

In these Regulations, unless the context otherwise indicates, a word or expression to which a meaning has been assigned in the Act has the meaning so assigned:-

"Act" means the Electronic Communications Act, 2005 (Act No. 36 of 2005);

"Amateur" means a person who is interested in the radio technique solely for a private reason and not for financial gain and to whom the Authority has granted an amateur radio station licence and shall mean a natural person and shall not include a juristic person or an association: provided that an amateur radio station licence may be issued to a licensed radio amateur acting on behalf of a duly founded amateur radio association;

"Amateur radio licence" means a legal document or permit giving official permission to the licence holder to operate an amateur radio station;

"Amateur station" means a radio station for a service of self-tuition, intercommunication and technical investigation that is operated by an amateur;

"Assignment" means the authorization given by the authority to use a radio frequency or radio frequency channel under specified conditions;

"Carrier wave power" means the average power that is supplied by the transmitter to the antenna transmission line and is measured during one radio-frequency cycle in conditions of no modulation;

"CEPT" means Conference of European Posts and Telecommunications Authorities;

"Continuous tone coded squelch system (CTCSS)" means a circuit that is used to reduce cross talk interference on a shared two-way radio communication channel;

"Direct Sequence Spread Spectrum" ("DSSS") means a modulation scheme whereby radio signals are passed through and distributed over the entire band at once.;

"Due date" means 31 December of each year;

"ECS" means Electronic Communications Services;

"e.i.r.p" means effective isotropically radiated power;

"EMC" means Electromagnetic compatibility;

"e.r.p" means effective radiated power, the product of the power supplied to an antenna and its gain relative to a half wave dipole in a given direction;

"Experimental station" means a station that uses radio waves in experiments for the purpose of developing the science or technique of communication but which is not an amateur radio station;

"Frequency Hopping Spread Spectrum" ("FHSS") means a modulation scheme that rapidly switches a carrier among many given frequency channels, using a pseudorandom sequence known to both the transmitter and receiver;

"GHz" means Gigahertz of Radio Frequency Spectrum;

"HAREC" means Harmonized Amateur Radio Examination Certificate issued in terms of CEPT recommendation TR61-02E;

"HF" means High Frequency;

"ISM" means Industrial, Scientific and Medical;

"kHz" means Kilohertz of Radio Frequency Spectrum;

"Licence year" in relation to a licence or certificate, means the period of 12 months of each year from 1 April to 31 March, both dates inclusive;

"Licensee" means a person to whom a radio frequency spectrum licence has been issued in

"MHz" means Megahertz of Radio Frequency Spectrum;

"Mobile station" means a radio station that is intended to be operated while it is in motion or while it is stationary at an unspecified place;

"National radio frequency plan" means a plan that sets out specific frequency bands designated for use by particular types of services and takes into account bands that

are allocated to the security sector;

"Q-Code" means a standardized collection of three-letter message encodings, all commencing with the letter "Q";

"Radio-communication" means all electronic communication by means of radio waves;

"Radio Telecommand" means the use of radio apparatus for the transmission of signals to initiate, modify or terminate functions of equipment at a distance;

"SATFA" means South African Table of Frequency Allocations;

"Service licence" means a BS, ECS or ECNS licence;

"Spread spectrum" means a form of wireless communications in which the frequency of the transmitted signal is deliberately varied, resulting in a much greater bandwidth than the signal would have if its frequency were not varied;

"Standard application" means a procedure where applicants are allowed to submit simple application forms;

"Telemetry" means the transmission of remotely measured data;

"UHF" means Ultra High Frequency;

"VHF" means Very High Frequency;

15. Duration of a Radio Frequency Spectrum License.

(1) The grant of a Radio Frequency Spectrum Licence and assignment must not be construed as conferring upon the holder a monopoly of the use of the frequency or a right of continued tenure in respect of the frequency;

(2) Unless otherwise specified in regulations, an ITA or in the licence, a Radio Frequency Spectrum Licence will remain valid from 01 April until 31 March of the following year and is thereafter renewable by payment of the prescribed annual licence fee in terms of these regulations;

(3) Where a Radio Frequency Spectrum Licence is issued for assignment in the Amateur Radio, Aeronautical, Maritime, Citizen Band frequency bands or for Ski Boats, the Radio Frequency Spectrum Licence shall remain valid from 01 April of the year in which it was issued and is thereafter renewable by payment of the prescribed annual licence fee for a maximum period of five (05) years.

19. Radio Frequency Spectrum Licence Fees

(1) No applications, renewals, amendments or transfers will be permitted where it has been established that the licensee has not paid the required fees.

(2) The Radio Frequency Spectrum Licence Fees to be paid by the holders of a Radio Frequency Spectrum Licence are contained in the Radio Frequency Spectrum Licence Fees Regulations as contained in notice number 754 published in government gazette number 33495 of 27 November 2010.

(3) The Radio Frequency Application Fees and Radio Frequency Examination and Certificate Fees are contained in Annexure F and G of this regulation.

(3) not required for examination purposes annexure F and G not included in this document

(4) The Radio Frequency Spectrum Licence Fees paid are non refundable.

21. Amateur Radio communications

1. Conditions for the granting of amateur radio station radio frequency spectrum licences

(1) The Authority may, subject to these regulations and on the conditions that are set out in this Chapter, issue a Class A or Class B licence for the use of an amateur radio station.

(2) A Class A licence (ZS - CEPT Class 1) may be issued to a person who-

(a) has furnished proof of his or her ability to correctly set up, adjust and operate an amateur HF Radio apparatus;

(b) is in possession of a HAREC issued or recognised by the Authority.

(3) A Class B licence (ZU) may be issued to a person who-

(a) has furnished proof of his or her ability to correctly set up, adjust and operate an amateur HF transceiver; and

(b) is in possession of a radio operator certificate specified for a Class-B licence.

(c) is over the age of twenty (20) years.

Note item (c) is an error in the official regulations. It should read "is under the age of twenty (20) years. This will be corrected at a later date by ICASA. In the interim this clause will not be enforced by ICASA and to avoid confusion this clause will not be included in any RAE examination.

(4) A Holder of a Class B novice licence should write and pass the Class A examination before his/her 25th birthday after which the Class B novice licence will be cancelled.

(5) The Authority shall issue call signs to licensed amateur radio stations

and no person shall acquire call signs on behalf of a group of persons or amateur radio stations.

(6) The Authority may issue an amateur radio station licence to a person who is in possession of any of the following:

a. a valid foreign amateur radio station licence or

b. an amateur operator certificate, equivalent to the relevant class of South African licence or certificate, issued by a recognised competent foreign authority or

c. where there is a reciprocal agreement between South Africa and the other country.

2. Use of amateur radio stations

(1) An amateur radio station shall only be used by the holder of the Amateur Radio Station Licence issued by the Authority.

(2) The holder of an Amateur Radio Station Licence may use an amateur radio station other than his or her own with the permission of the licensee concerned.

(3) An Amateur Radio Listener's Licence authorizes the holder thereof to acquire and be in possession of a radio apparatus for the reception of amateur radio signals only.

3. Communication by amateur radio stations

(1) The licensee is permitted:

(a) To engage in communication with other licensed amateur radio stations, using the permitted amateur bands, and such communication must be restricted to comments on technical investigations, remarks of a personal nature and other items of a common interest which must not include commercial or business communication for which an electronic communication service would have been used had the amateur radio communication not been available;

(b) in the case of an emergency and where the safety of life or limb is at stake, to communicate with amateur stations or any other stations to prevent loss of life, to render assistance, to call for assistance or convey health and welfare messages directly connected with the emergency;

(c) to practice emergency and event related communication, by providing communication for cycle, motor, marathon rallies and general community service: provided that the station engaged in the practice, is a holder of the

appropriate class licence, for the frequency used;

(d) to carry out communication in plain language or Q Code;

(e) to send signals un-enciphered that form part of or relate to the transmission of messages.

2 An amateur station must not advertise any goods or services or anything else, or transmit any news or messages on behalf of a third person on an amateur radio station provided that the Authority may authorize a licensee to transmit

(a) reports on behalf of or by a third person during events that are in the public interest;

(b) information bulletins that are of direct interest to amateurs; and

(c) Morse code for reception by persons learning Morse code operation or for improving their competence in Morse.

(3) An amateur radio station must not be used to transmit or receive messages for monetary reward.

(4) For the purposes of this regulation, messages and signals include communication by any of the modes or types of modulation permitted in the national radio frequency plan.

4 Logbook for amateur radio activities

(1) The licensee must keep a log book recording the activities of the amateur radio station used by him or her or any other person under the supervision of the licensee, except when operating a station in the VHF and UHF bands or mobile.

(2) Details recorded in the log book referred to in sub-regulation (15) must include-

(a) the date, time and nature of each transmission: provided that the date with regard to each individual day's operation need to be recorded only once and for the purposes of this paragraph "time of each transmission" shall mean the time that a specific station is called and the time at which the communication with such station is terminated;

(b) the full name and address of the person making the transmission: provided that the name of the licensee who regularly uses the amateur radio station need to be recorded only once in the log book with an explicit statement that all transmissions are made by him, except where stated otherwise;

(c) the call sign of every station: provided that it need not be recorded

repeatedly for calls made to the station during the course of the communication;

(d) the transmitter power that is used;

(e) the frequency band that is used: provided that it need to be recorded in the log book only once until a change of frequency to another authorized band takes place; and

(f) the address from where the transmission takes place: provided that such address needs to be recorded only once, should the place of transmission not change.

5. Terms and conditions for amateur licences

(1) No person must transmit by way of an amateur radio station, using a mode of emission or at a power level, other than that indicated in the national radio frequency plan, unless authorised by the Authority.

(2) The mode of emission referred to is contained in Annexure H in these regulations.

(3) Where the amateur service allocation is on a secondary basis, frequency spectrum bands must be shared with other services, subject to the following conditions that:

(a) amateur radio stations must not interfere with these services;

(b) users of these frequency bands must unconditionally accept interference from Industrial, Scientific and Medical (ISM) equipment;

(4) The radio apparatus used at an amateur radio station may/must not be tuned to a frequency other than a frequency for amateur services referred to in Annexure I in these regulations.

(5) The frequencies required by the licensee must be selected in such a manner that no energy is radiated at frequencies other than those referred to in the amateur radio frequency plan, provided that the bandwidth of emissions on bands that have been allocated to the amateur radio service in terms of these regulations shall be restricted to the minimum.

6 Limitation in respect of transmissions by an amateur radio station

(1) No person may operate an amateur radio station using frequency bands, modes of emission or at power levels other than those specified in the amateur national radio frequency plan.

(2) Class-B emission (damped waves) by an amateur radio station is not permissible.

(3) An amateur or experimental radio station must not be used for the simultaneous retransmission, by automatic or other means of programs or signals originating from a commercial radio station: provided that the holder of an amateur radio station licence or experimental station licence may relay legal signals by automatic or other means that originate from a licenced amateur or experimental radio station

(4) An amateur radio station must not be erected in or on a vehicle which is used for public transport

7. Music transmissions

(1) No form of entertainment must be transmitted from an amateur radio station, provided that music transmissions for experimental purposes shall be permissible on condition that-

(a) Such transmissions shall last no longer than three (3) minutes;

(b) at least five (5) minutes shall elapse before any further music is transmitted from the same station;

(c) when commercial recordings are used, the make, name or title of such recordings shall not be mentioned; and

(d) such transmissions must not take place in bands other than those indicated in the amateur national radio frequency plan.

8. Television transmissions

(1) Holder of an amateur radio station licence may require approval to transmit television, provided that such approval shall only be granted to the licensee after at least twelve (12) months have elapsed since the date of issue of such licence.

9. Spread-spectrum communication

(2) The Authority may, subject to the condition that interference is not caused to other users of the same frequency band and such other conditions as it may deem necessary, on application in the standard application form, authorize the holder of an amateur radio station licence to employ spread-spectrum communication.

(3) The frequency (band edges) and the modulation technique/emission designation to be used shall be furnished in the application form.

10. Transmitter power output of amateur radio stations

(1) The maximum power output of the transmitter, as measured at the antenna port, must not exceed the levels specified in the national radio

frequency plan for the relevant licence classes and linearity must be maintained.

(2) An adequately filtered direct-current power supply must be used for all the transmitting equipment.

(3) The coupling between the antenna and the transmitter shall be such that no direct potential danger to life exists at a power supply on or at the antenna.

(4) The antenna system must furthermore comply with the requirements of the relevant local municipality.

11 Frequency measuring equipment

(1) Every amateur or experimental radio station must have frequency measuring equipment with accuracy of at least 0.1 per cent, unless the frequencies of all transmitters of the station are crystal controlled and are accurate to at least 0.1 per cent.

12 Mobile amateur radio station

(1) An amateur holding a Class A or B licence may use a mobile amateur radio station within the boundaries of the Republic of South Africa.

(2) When a mobile amateur radio station is used in an amateur radio zone other than that in which the amateur resides, the call sign allocated to the main station must

(a) In the case of continuous-wave radiotelegraphy, be followed by the signal, the letter M and the number of the zone from where the station is operated; and

(b) in the case of radiotelephony be followed by the word "mobile" and the number of the zone from where the station is operated.

(3) For the application of the provisions in respect of zone the different zones of the Republic of South Africa are indicated in Annexure J of the Regulations.

13 Amateur radio operator certificate

(1) No person shall obtain a HAREC or a certificate specified for a Class B licence unless he or she has passed an examination in the Republic of South Africa for Class A or Class B licences.

(2) Any person who is not prohibited by the regulations, from qualifying may sit for the examination.

- (3) The examination must be conducted at least once a year.
- (4) HAREC and a certificate specified for Class B licences shall be issued to a candidate who passes the examination and such certificate is not recognised for any purpose other than an amateur radio station licence.
- (5) The possession of a HAREC or certificate specified for a Class B licence shall not entitle the user thereof to an amateur radio station licence.
- (6) The following conditions are applicable to the radio amateur examination:
 - (a) The syllabi for the examination must be provided to anybody on request.
 - (b) Three (3) hours must be allowed for the examination paper consisting of various parts.
 - (c) To pass the examination, a candidate must obtain at least fifty (50) percent in each of the relevant parts with a total average of sixty-five (65) percent.
 - (d) A candidate who passes either of the parts referred to in sub-regulation 6(c) and passes the remaining part within three (3) successive attempts, which shall commence with the examination immediately after the one in which the candidate was unsuccessful, is exempt from writing the whole examination again.

PART VII - General Provisions

26. Allocation and display of call sign

(1) Where the Authority allocates a call sign to a radio station, the said call sign must be conspicuously displayed on the said radio set by the licensee and the call sign must be transmitted at least once during each separate transmission

27. Modifications to a station

(1) A licensee is obliged to effect at his or her own cost any modifications to his radio- communication system that the Authority has directed, and the Authority shall by no means be liable to the licensee or any other person for any costs or damages arising from such modifications.

28. Interference, condition of station and compliance with requirements of the Authority and local municipality

(1) The licensee is obliged to maintain all radio apparatus in a good technical

condition and to ensure at all times that it satisfies the requirements of the Authority and does not cause harmful interference.

(2) The antenna system must comply with any requirements of the relevant local municipality.

29. Indecent language and fraudulent transmissions over stations prohibited

(1) No person shall transmit language which, judged within context:

(a) Violates the dignity or privacy of a person;

(b) amounts to profanity;

(c) amounts to obscenity;

(d) amounts to propaganda for war;

(e) amounts to incitement of imminent violence;

(f) amounts to the advocacy of hatred based on race, ethnicity, religion or gender and that constitutes incitement to cause harm;

(2) Sub-regulation 35(1) shall not apply to bona fide literature, drama, documentary or scientific material or to bona fide religious debate.

30. Distress signal

(1) No person shall transmit a distress signal without justifiable reason.

31. Change of address

(1) Every licensee who changes his address must advise the Authority of his or her new address within fourteen (14) days of the change.

32. Radio receiving apparatus with continuous tuning

(1) No person must use or have in his or her possession any radio receiving apparatus which is capable of continuous tuning and be tuned to bands above thirty(30) MHz other than the international broadcasting and amateur bands except where the Authority's prior approval was obtained.

Note: The SARL has brought to the attention of ICASA that modern radios cannot meet this regulation (32). ICASA have indicated that they will consider a revision to this clause in future

34. Recognition of licences issued by other countries

(1) Notwithstanding provisions to the contrary in these regulations, the Authority may issue a radio frequency spectrum licence as required

by the Act or these Regulations to a person who, in the opinion of the Authority, possesses a similar licence issued by another country despite the fact that such person does not satisfy specific requirements stipulated by these regulations for the acquisition of the licence or certificate.

36. Rights

(1) Assignment of Radio Frequency Spectrum and the issuance of licences to use Radio Frequency Spectrum are at the discretion of the Authority and applicants for Radio Frequency Spectrum must furnish all information to support their application as required by the Authority.

37. Offences and Penalties

(1) Any person who fails to comply with these regulations is liable on conviction by the Complaints and Compliance Commission to a fine not exceeding R 200,000 unless stated otherwise in regulations.

(2) Any person who fails to comply with the regulations regarding the licence exempt bands I radio apparatus is liable on conviction by the Complaints and Compliance Commission to a fine not exceeding R 500,000 unless stated otherwise in regulations.

Annexure H - Table of amateur modes of emission.

No.	Mode	Explanation
i.	A1A	Telegraphy without the use of a modulating audio frequency (by on/off keying) for aural reception
ii.	A3C	Facsimile (with modulation of the main carrier either directly or by frequency modulated sub-carrier
iii.	A3E	Double sided telephony
iv.	C3F	Television by analogue modulation and vestigial-sideband operation.
v.	F1A	Telegraphy for aural reception is including DATA by means of frequency shift keying without the use of a modulating audio frequency one or two frequencies being emitted at any instant.
vi.	F1B	Telegraphy is including DATA by means of frequency shift keying without the use of a modulating audio frequency one or two frequencies being emitted at any instant.
vii.	F1D	Data transmissions by means of frequency shift keying without the use of a modulating audio frequency, with one frequency been emitted at any instant.
viii.	F2A	Telegraphy for aural reception including RTTY and DATA by the on/off keying of a frequency or by means of the on/off keying off keying of a frequency modulated emission.
ix.	F2B	Telegraphy including RTTY and DATA by the on/off keying of frequency modulating audio frequency or by means of the on/off keying of a frequency modulated emission.
x.	F3C	Facsimile by direct frequency modulation of the carrier
xi.	F3E	Frequency modulated telephony.
xii.	G3E	Phase modulated telephony.
xiii.	J3E	Single sideband suppressed carrier telephony.
xiv.	J3F	Single sideband suppressed carrier, modulated by slow scan television audio frequencies.
xv.	NON	Emission of an unmodulated carrier
xvi.	R3E	Single sideband, reduced or variable level carrier telephony
xvii.	W9E	Digital speech multiplexed up to twelve channels.
xviii.	J2D	Data transmission with the use of a modulating audio frequency
xix.	J2E	Digital telephony with the use of a modulating audio frequency

Annexure I – Amateur radio frequency bands

Frequency bands in MHz	The Amateur Service	Maximum Power in dB relative to 1 watt PEP	Satellite	Permitted types of transmission	Remarks
0.1357 – 0.1378	Secondary	CLASS A 1 Watt e.i.r.p		All except pulse or fast scan TV	
1.810-1.850	Primary	A1 = 26 dBW		All except pulse or fast scan TV	No Class B operation
3.500 - 3.800	Co-primary	A = 26 dBW B= 20 dBW		All except pulse or fast scan TV	Music Transmission permitted
7.000 - 7.200	Primary.	A = 26 dBW B = 20 dBW	Allocated	All except pulse or fast scan TV	
10 100 - 10.150	Secondary	A = 26 dBW		All except pulse or fast scan TV	No Class B operation International Band
14.000 - 14.350	Primary	A = 26 dBW	Allocated	All except pulse or fast scan TV	No Class B operation International Band
18.068 - 18.168	Primary	A = 26 dBW		All except pulse or fast scan TV	No Class B operation International Band
21.000 - 21.450	Primary	A = 26 dBW	Allocated	All except pulse or fast scan TV	No Class B operation International Band
24.890 - 24.990	Primary	A = 26 dBW		All except pulse or fast scan TV	No Class B operation International Band
28.000 - 29.700	Primary	A1 = 26 dBW	Allocated	All except pulse or fast scan TV	No Class B operation International

					Band
28.050 - 28.150		B = 20 dBW			
28.300 - 28.500		B = 20 dBW			
29.700 - 30.000	Secondary	26 dBW		All	Secondary basis during disaster exercises and emergency
40.675 -40.685	Primary	26 dBW	Allocated	All except pulse or fast scan TV	Propagation studies only
50.000 -54.000	Co-Primary	26 dBW		All except pulse or fast scan TV	Music Transmission permitted
70.000 – 70.300	Secondary	Class A 26dBW		All except pulse or fast scan	
144 – 146	Primary	A = 26 dBW B = 20 dBW	Allocated	All except pulse or fast scan TV	
430 - 440	Co -Primary	A = 26 dBW B = 20 dBW	Allocated	All except pulse or fast scan TV	Music Transmission permitted
435 -438	Co -Primary	A = 26 dBW B = 20 dBW	Allocated	All except pulse or fast scan TV	Music Transmission permitted
1240 – 1300	Secondary	A = 26 dBW	Allocated	All except pulse	Music transmissions permitted
1260 - 1270	Secondary	A = 26 dBW	Allocated	All except pulse	Music transmissions permitted
2300 - 2450	Secondary. Users must accept interference from ISM users	A = 26 dBW		All except pulse	
5650 – 5850	Secondary. Users must accept interference from ISM users	A = 26 dBW	Allocated	All except pulse	
10000- 10450	Secondary	A = 26 dBW	Allocated	All - including pulse	
10450 -10500	Secondary	A = 26 dBW	Allocated	All - including	

				pulse	
24000- 24050	Primary	A = 26 dBW	Allocated	All - including pulse	
24050 -24250	Secondary. Users must accept interference from ISM users	A = 26 dBW		All - including pulse	
47000 - 47200	Primary	A = 26 dBW	Allocated	All - including pulse	
75500 – 76000	Primary.	A = 26 dBW	Allocated	All - including pulse	
76000 – 81000	Secondary. Users must accept interference from ISM users	A = 26 dBW	Allocated	All - including pulse	
122250 – 123000	Secondary. Users must accept interference from ISM users	A= 26 dBW	Allocated	All - including pulse	
134000 - 136000	Primary	A= 26 dBw	Allocated	All – including pulse	
136000 – 141000	Secondary	A= 26 dBW		All – including pulse`	

Notes:

Primary means the frequency is allocated to the amateur service as the main user of the frequency and other users may not cause interference

Co-Primary means that the allocation is made to more than one service and users may not cause interference to any other services allocated as primary

Secondary means that a Radio Amateur

a) shall not cause harmful interference to stations of primary services

b) cannot claim protection from harmful interference from stations of a primary service

Annexure J

