

National Telecommunications Regulatory Commission  
Grenada



AMATEUR RADIO SERVICE GUIDELINES



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## INTERPRETATION

In this document unless otherwise require –

“Applicant” means a person applying for a licence

“Application” means an application for a licence, including a modification or renewal of a licence;

“Application fee” means the fee payable by an applicant for a licence;

“Radio communications” means the transmission, emission or reception of signs, signals, text, images and sounds, or other intelligence of any nature by radio;

“Radio equipment” means any equipment or apparatus designed or used for radio communications;

“Operator” means the amateur radio operator licenced by the NTRC or the competent authority in a foreign country

“Licence” means an amateur radio licence issued by the NTRC or the relevant authority in a foreign country

“Call sign” means a unique group of characters assigned to an operator or a station for the purpose of identifying a transmitting station or operator

“Licencee” means an operator that has been issued an amateur radio licence by the NTRC

“Annual licence fee” means the fee prescribed in the telecommunications (fees) regulations and payable annually by the licencee.

“Effective date” means the date on which the Minister grants the licence.

“NTRC” means the National Telecommunications Regulatory Commission

“ECTEL” means the Eastern Caribbean Telecommunications Authority

“ITU” means the International Telecommunications Union

## INTRODUCTION

Amateur service is a radio communication *service* for the purpose of self-training, intercommunication and technical investigations carried out by amateurs, that is, by duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest.

Amateur radio is an important and meaningful service. The NTRC is not only responsible for licensing amateur radio operators, but is also responsible for regulating the service; this includes guiding users on international best practice and ensuring that there is compliance with the ITU rules and regulations.

This document is intended to guide interested parties on the process and procedures of obtaining an amateur radio licence and gives general provisions on operating an amateur radio station.

Any person seeking a licence to operate an amateur station should demonstrate theoretical knowledge of:

### Radio Regulations

- International
- Domestic

### Methods of radio communication

- Radiotelephony
- Radiotelegraphy
- Data and image

### Radio system theory

- Transmitters
- Receivers
- Antennas and propagation
- Measurements

### Radio emission safety

### Electromagnetic compatibility

Avoidance and resolution of radio frequency interference.

The NTRC shall verify the operational and technical qualifications of any person who wish to operate an amateur station

## APPLICATION

Application should be submitted as follows:-

- In person,
- By a representative of the applicant
- By mail/courier

## TYPES OF LICENCES

The two types of amateur radio licences are:

1. *Station licence*
2. *Operator licence*

## STATION LICENCE

An amateur radio station licence is a licence that may be granted to any legal entity operating in the state of Grenada.

An amateur radio station licensee shall not permit the use of any radio communication equipment by any person not holding a valid amateur radio operators licence. The licensee shall ensure that the station conform to the terms and conditions of the licence.

In the event of an emergency, an unlicensed operator may operate the station, but under the supervision of a licensed operator.

## OPERATOR LICENCE

The Commission may grant an amateur radio operator's licence to qualified or approved persons for the operation of radio communications equipment solely for the purpose of self-training, intercommunication and technical investigation in radio techniques.

## CLASSES OF LICENCE

An individual may apply for and obtain one of the following classes of amateur radio operator's licence.

- Novice** – Entry level class
- General** – Intermediate class
- Advanced** – Highest class

Novice and General class licensees will be restricted to the use of certain bands, frequencies and modes of operation in the amateur radio spectrum as determined by the NTRC in accordance with the Regional Spectrum Plan as published by ECTEL. (*See Prohibition / General Provision*)

An Advanced class licensee is allowed to use all available Amateur Radio frequencies, bands and modes of transmission as published by the NTRC in accordance with the Regional Spectrum Plan as published by ECTEL. (*See Prohibition / General Provision*)

## REQUIREMENTS

The following are the requirements to obtain an amateur radio operator's licence in Grenada.

Grenadian citizens must complete the prescribed exam with at least a 60% score, and should submit the following:

- 2 copies of the completed amateur radio application form
- The prescribed application fee
- 2 Passport size photos
- Technical specifications of the equipment proposed
- Valid photo identification (*eg. Passport, National ID*)

Residents (non national) must complete the prescribed exam with at least a 60% score (*If applicant doesn't have an existing licence*), and should submit the following:

- 2 copies of the completed amateur radio application form
- The prescribed application fee
- 2 Passport size photos
- Existing licence - issued in home country (*if applicable*)
- Technical specifications of the equipment proposed
- Valid photo identification

Visitors must submit the following:

- 2 copies of the completed amateur radio application form
- The prescribed application fee
- 2 Passport size photos
- Existing (primary) licence - issued in home country
- Technical specifications of the equipment proposed
- Valid photo identification

## EXAMINATIONS

An examination committee will be appointed by the NTRC. The examination committee will assist in developing different examinations which will be issued to applicants

Examinations will be conducted at the office of the NTRC and supervised by NTRC personnel or appointed persons. The exams will be based on the syllabus adopted by the NTRC. Each class of amateur radio licence will be subject to a different/separate examination.

The exams will be graded by the examination committee; the graded exam should be submitted to the NTRC together with relevant recommendation. The NTRC will then review the exam and the recommendation and make a final determination

A score of 60% or more must be obtained in order for applicant to be considered for an amateur radio licence

The syllabus adopted is based on the ARRL book “Now you are talking” which can be used as study material.

Applicant will be given an appointment to sit the exam. Exams will be held once a month on a day to be determined by the NTRC.

Applicant must submit the completed amateur radio application form prior to the day of the exam. A non refundable examination fee of \$20 will be charged for administering the exam.

The results of the examination will be made available within 1 day of the sitting of the exam. At the discretion of the NTRC, a person may be able to take all tests if they so desire to move from Novice to Advanced on the same day, provided they pass the previous level exam and feel they have the competence and knowledge to pass the next level exam.

### **UPGRADING OF LICENCE CLASS**

**Novice to General:** A Novice class Licencee will be required to sit the general class licence exam and obtain a score of at least 60% and must resubmit the items listed under the requirements section.

**General to Advanced:** A General class Licencee will be required to sit the Advanced class licence exam and obtain a score of at least 60% and must resubmit the items listed under the requirements section.

### **DURATION**

Amateur radio licences issued to nationals are for a period of 5 years which are endorsed annually upon the payment of the annual licence fee. Operators can pay the annual fee in advance up to the time of the licence expiration date.

The ID card will be use as proof of the annual endorsement and will be issued until the next payment is due.

J38 call signs will be issued to operators for a period of not exceeding to 1 year. Visiting licenced operators who choose to use the “J3/home call sign” will be issued a licence for a period of not exceeding 1 year. J34 call signs will be issued for a period not to exceed 1 year but can only be used during contest period.

### **RENEWAL PROCESS**

To renew an amateur licence the operator must present a completed application form, a photo ID, 2 passport size photos and the application fee.

## AMATEUR RADIO BANDS

This section will be defined and incorporated according to the Amateur Radio Regulations

## CALL SIGNS

Call signs are a unique combination of letters and numbers allocated to a radiocommunications user or station to identify the user or station. Call signs must be used for all on-air communications including testing. Call signs allocated to amateur radio operators/stations must conform to ITU Radio Regulations.

The twenty-six letters of the alphabet, as well as digits in the cases specified below, may be used to form call signs. Accented letters are excluded.

The ITU has allocated the prefix J3 to Grenada for all stations/services that use the entire radio spectrum. These include the following:

- Amateur service
- Broadcasting service
- Fixed service
- Mobile service
- Standard frequency and time signal service

In the case of the Amateur Radio Service, the call sign for an Amateur Radio operator/station in Grenada is formed by two characters (Prefix) and a single digit (other than 0 or 1), followed by a group of not more than three letters. Thus the call sign of an operator/station in the Amateur Radio Service in Grenada would be:

J	3	D	L1	L2	L3
---	---	---	----	----	----

Where: J3: National (Grenada) prefix

D: Any digit from 2 to 9

L1, L2, L3: Any letter from A to Z

Example: **J 3 9 A B C**

## General call sign considerations

Call signs may not be reserved and will be issued on first-come, first-serve basis.

Call signs are assigned to an individual for a lifetime. However there are cases where a call sign becomes available for re-assignment. In the case of the operator's death the call sign remains reserved or in 'Silent Key' status for a period of five (5) years, after which the call sign becomes available for assignment once more.



Once a call sign has been revoked it may not be re-assigned for a period of 2 years. This restriction will not apply in cases where:

The re-assignment of a deceased amateur operator's call sign is to a family member (subject to that person having suitable qualification) or, to a club with which the deceased amateur had close ties, or, to reinstate it to the individual who held it immediately prior to the revocation.

### **Call Sign Structure**

<b>PREFIX</b>	<b>USAGE</b>
J30	Reserved
J31	Reserved
J32	Repeaters and Experimental Stations
J33	Novice Class licencee (National)
J34	Contest Calls Only
J35	Advanced Class licencee (National)
J36	Station, National Organisation, Club Call signs
J37	Resident Non-Nationals
J38	Visiting Amateurs, Special calls
J39	General Class licencee (National)

One, two or three letters are to be added after the above prefixes. Total length of call sign should not to exceed 6 characters. Example: Novice licence as: **J33CNS**

Call signs with one letter after the prefix may be issued to Advanced licencees who are certified electronics technicians or proficient in morse code.

Call signs with one letter after the prefix may be issued to General class licencees who are proficient in the morse code.

J38 call signs with one letter after the prefix may be issued to visitors with the equivalent of an Advanced licence or higher and is proficient in morse code.

In the case of an upgrade of licence class i.e. from Novice to General or from General to Advanced, a new call sign will be assigned and the old one revoked.

### **Reserved Call Sign**

The following combinations shall not be used as call signs:

- Combinations which might be confused with distress signals or with other signals of a similar nature such as J39SOS;
- Combinations in Recommendation ITU-R M.1172 that are reserved for the abbreviations to be used in the radiocommunication services.
- Combinations of certain letter which may depict unacceptable words or which may sound indecent or can be interpreted as offensive such as J39ASS and J39XXX .
- Call sign which use the letters of the Q – Code in the suffix

## **Call signs assigned to visiting Operator**

A visiting foreign amateur radio operator who holds a valid Amateur Radio Licence issued by the relevant authority of his country, upon showing proof of such licence and identification documents (passport) to the licencing officer will be assigned the call “*J3/his home call sign*”. The indicator must be separated by the slant mark (/) Example: J3/OH2XX

Operator privileges are those authorized on his primary licence issued by the authority in his home country, but do not exceed those of the NTRC advanced class operator

Visitors can be assigned a J38 call sign upon request since J38 is allocated for visitors. A J38 Call sign can be re-assigned to a new applicant 2 years after the previous assignment has expired or the operator has died.

Visitor call signs (*J38 and J3/*) will be issued for a period of not exceeding 1 year.

J34 call signs may be assigned to visiting duly licenced amateur radio operators for contests only upon their request. These licences will be issued for a period not exceeding 1 year and can be reissued to another visiting amateur radio operator, for contest use, after a period of two (2) years from the date of expiry of the said licence.

## **Multiple call signs**

An amateur radio operator may hold more than one licence and hence more than one call sign. A typical case would be where the call sign of a deceased family member is being held by another qualified operator for another family member yet to become qualified.

There are other reasons for more than one licence/call sign to be held. No reason need be given by an applicant for an additional call sign. However, an applicant should be advised that in the Amateur Service a call sign is synonymous with the holder’s name and to actively use more than one call sign could be seen as unnecessary and confusing. The hoarding of call signs is contrary to the spirit and intentions of the Amateur Radio Service and is not encouraged.

## **Vanity call signs**

A vanity call sign is a special amateur radio call sign specifically chosen by a person or club who is currently an amateur radio licensee (similar in purpose to Vanity licence plates on cars). Vanity call signs usually include alphabetical characters of personal significance (eg. initials of licensee, parts of names, hobbies, etc), or sometimes are simply chosen because they are shorter calls, or sometimes they have double or triple characters (eg. J39JJJ).

Example: Ron Dekker – Call sign: J 3 9 R D (Initials) or J 3 9 R O N (First name)

The NTRC at its discretion may issue such vanity calls to duly licenced amateur radio operators requesting one on a first come first serve basis.

## **LICENSING**

A long version of an amateur radio licence would be issued, this version of the licence would be issued for a period 5 years, in addition an amateur radio licence certificate would be issued and is renewable annually upon payment of the licence fee,

An ID card version of the amateur radio operator's licence can be issued to a licence amateur radio operator upon his/her request, this version of the licence will be renewable annually upon payment of the annual licence fee

To obtain the ID card licence, the operator must collect the appropriate documentation from the NTRC office and present it to the approved vendor together with the appropriate fee.

## **RECIPROCAL LICENCE**

An amateur radio operator who holds a valid reciprocal licence from another country/jurisdiction which is not his home country will not be allowed to apply for a reciprocal licence using that call sign in Grenada. He will have to use the call sign that was issued by the relevant authority in his home country when completing his application and will have to submit a copy of his licence and identification papers.

Example:           Ron Dekker – Home Call sign: OH2XX, Barbados Call sign: 8P9XX  
                          Will only be allowed to use J3 / OH2XX and not J3 / 8P9XX

In addition, holders of licences/call signs issued by the NTRC – Grenada with the following prefixes J34, J37, J38 should not be used by the licensee to obtain a reciprocal licence from the competent authority of another country/jurisdiction.

## **REVOCAION AND REASSIGNMENT OF CALL SIGN**

A Novice class Amateur Radio operator who has been elevated to general class status will have his current Novice call sign revoked and will be assigned a general class call sign.

A General class Amateur Radio operator who has been elevated to Advanced class status will have his current General call sign revoked and will be assigned a Advance class call sign.

An Amateur Radio operator/station who fails to re-apply within 2 years after the expiration of their licence and after at least 2 notices have been sent to him may have his call sign revoked.

In the event of the demise of an amateur radio operator, the assigned call sign may be revoked.

The revoked call signs may be re-assigned to new applicants as stated in the "General call sign consideration" section of this document.

Any Amateur radio operator who is in breach of any of the applicable rules and regulations of the NTRC, ECTEL or the ITU, shall have his Licence revoked and may be liable to a fine or disciplinary action as specified in the Telecommunications Act/Regulations.

## **GENERAL LICENCE CONDITIONS**

Licences can be revoked for non-compliance with the terms and conditions of the telecommunication regulations. Licences for all mentioned communications systems are renewable and are payable annually.

The licensee shall pay all fees as prescribed under the Telecommunications Act.

When identification signals are transmitted they shall comply with the provisions of the licence and ITU regulations.

For transmissions carrying identification signals, in order that operators/stations may be readily identified, each operator shall transmit its identification as frequently as practicable during the course of transmissions, including those made for tests, adjustments or experiments.

During the course of their transmissions, amateur radio operators shall transmit their call sign at least every ten (10) minutes. Conversation should start and end by identifying one's Amateur radio call sign.

All licenced Amateur radio operators are required to keep a LOG (Paper or Computer) of all communications made from their station.

The NTRC reserves the right to carry out inspections of the Amateur radio station setup of all licenced operators to make sure that they are in compliance with the regulations.

Since the Amateur radio service is self-policing, all breeches/infractions of the regulations should be reported to the NTRC. The following information should be made available –

- Call sign of operator/station committing the breach
- Date and time of occurrence
- Frequency on which breach occurred
- Any other relevant details
- Operator/station reporting the incident

Notes: Call signs that do not fall within the guidelines will not be renewed. Visiting licenced amateurs will not be allowed to renew call signs that are not properly constructed. Example: J3A

## **PROHIBITIONS / GENERAL PROVISIONS**

Transmissions with false or misleading identification are prohibited

All transmissions in the amateur services should carry identification signals and shall be capable of being identified either by identification signals or by other means

When identification signals are transmitted they shall comply with the provisions of the licence and ITU regulations.

Amateur radio operators should not engage in conversation with suspected unlicensed operators. Example: operators with no call signs or bogus call signs.

The licensee shall not modify the equipment of artisanal or industrial production which is part of his station so that it performs outside of the licence conditions.

The operator shall not allow the use of his station by any unlicensed operator without his supervision and shall be liable for any breach of the licence committed by the unlicensed operator.

The operator shall not forge any of the features or indications recorded on his amateur radio Licence

The licence is nontransferable.

The operator is forbidden from:

- Using the amateur stations for illicit ends and or business transactions;
- Transmitting false call signs or identity signals;
- Intentionally interfering in the communications of other amateur operators/stations, or any other radiocommunications services;
- Transmitting false alarm signals;
- Transmitting words or expressions grossly offensive to good morals or good manners;

If the licenced operator fails to comply with any term or condition of the licence, he shall be in breach of his licence.

## **EMERGENCIES**

In the case of a natural disaster the licenced operator shall provide access to emergency communication services by means of the amateur radio station.

In the event of hurricanes, earthquakes, floods and similar emergencies, the Minister may request the operator to provide service to the Government or to such other institutions or persons such

Telecommunications Services as the Minister shall reasonably determine are necessary in the public interest.

In cases of emergency, the licenced operator shall use his amateur radio station to transmit urgent/priority messages regarding the safeguarding of human life, cases of serious accidents and natural calamities.

Throughout the emergency situations, the transmission of messages shall be done on the assigned frequencies of the amateur bands designated for that purpose and established in the Regional Spectrum Plan and or any other out of band frequency assigned by ECTEL/NTRC.

Amateur radio operators should prepare for and meet communication needs in support of disaster relief.

## **BANDPLAN CONSIDERATIONS**

### **Spectrum Management**

International spectrum management is the responsibility of the International Telecommunications Union (ITU). The ITU Radio Regulations allocate separate bands for each service such as fixed, mobile, broadcasting or amateur. Some bands are shared by more than one service. When bands are shared, services designated "Primary" are entitled to full protection from interference caused by secondary services. Secondary services must tolerate interference from primary services operating in the same band, and not cause any interference to primary services. Other services may also be permitted to share bands with primary and secondary services on a non-interference basis.

Each ITU member nation implements the Radio Regulations within its borders. Most member nations follow the ITU allocation tables fairly closely, although they do have the right to make variations to suit local requirements. In Grenada, spectrum management is the responsibility of NTRC/ECTEL. It determines frequency allocations and licence conditions for all transmitting stations in Grenada and its territories.

### **Amateur Self-Regulation**

Amateurs use a wide variety of different modes. Within one amateur band, activity can include Morse Code (CW), Voice (SSB), Digital Data Modes (RTTY, PACKET, PSK31, ETC), satellite and EME activity, and ATV. The best way of avoiding clashes is to set aside different band segments for each of these activities, so that all amateurs can pursue their interests without interference.

Amateur band plans are voluntary agreements, often known as "Gentlemen's Agreements". They are for the benefit of all amateurs. Most amateurs abide by the band plans because it makes sense to give everyone a fair go. Clashes still occur at times, and the usual reason is lack of awareness of the band plans.

## **Band Planning Guidelines**

Band plans need to satisfy a number of conflicting criteria:

- They should take local conditions into account, but they should be consistent with international usage.
- They should encourage spectrum efficiency, but they should also ensure that all modes have their fair share of spectrum space.
- They should take the popularity of each mode into account, while still providing enough spectrum space for less popular activities. For example, ATV requires far more bandwidth per operator than other modes; and activities such as EME are of major importance regardless of the number of stations involved.
- Band plans must be flexible enough to adapt to changing needs, but they tend to lose support if they are changed too often. The aim must be to think ahead and to make sure that future options are not closed off.

## **Mode Compatibility**

Some modes require exclusive band segments, but others can coexist with similar modes in the same part of the band. On the HF bands, there are three main mode divisions: Morse Code (CW), Digital Data Modes (RTTY, PACKET, PSK31, ETC), and Voice (SSB).

Image modes such as SSTV are usually sent as SSB signals, so these modes can be used in the SSB band segments. The same applies to digital voice modes that occupy much the same bandwidth as an SSB signal.

AM receives little use nowadays because it is less efficient than SSB and occupies twice as much bandwidth. But it can still be found, mainly on 80 and 160 meters and sometimes around 29 MHz.

On 10 meters, there is also a fourth category for FM. This mode is quite popular above 29 MHz, but it should not be used on lower frequencies because of its wide bandwidth. On the VHF-UHF bands, the grouping of modes is slightly different. The three main groups are:

- CW and SSB: the preferred modes for weak signal work, including digital DX modes using SSB bandwidths.
- FM: not suitable for weak signal work and not compatible with SSB or CW. This category also includes modes such as packet, which usually use FM mode on the VHF bands.
- ATV: requires a very large bandwidth but has a very low power density, so it needs an exclusive interference-free band segment.

## **Calling Frequencies**

On the VHF bands, the band plans include calling frequencies. These frequencies are "meeting places" and should be used only to make initial contact before moving to another frequency. If you "hog" the calling frequency you will prevent others from making calls or hearing more distant operators/stations that may appear on the frequency.

## **Beacons**

Beacons give an indication of band conditions and provide a warning of DX openings. They also serve as test signals for receiver calibration and testing. There should be no other transmissions within the beacon segments or on their band edges. This applies even if you are hundreds of kilometres away from the nearest beacon.

On the VHF/UHF bands, beacon frequencies are allocated according to a geographic allocation plan with a frequency spacing of 2 kHz. For further details on beacon frequency allocations, see the Regional Spectrum Plan as published by ECTEL.

## **Satellite Segments**

The band plans provide separate band segments for satellite operation. Satellite downlink bands should be kept clear of other transmissions at all times - right to the band edges. On bands where the satellite band joins an FM segment, there should be no FM operation on the band edge.

## **FM Segments**

FM operators can operate on any simplex channel or on unused repeater frequencies. The band plan SSB and beacon segments should be avoided at all times. It is also a good idea to avoid operating simplex on repeater input channels - you may unintentionally key up a distant repeater.

## **Further Information**

The band plans are reviewed by ECTEL from time to time, to keep up to date with changing patterns of activity. The band plans apply in all the ECTEL states, any changes must be discussed and agreed to in all states before they are adopted. If a proposed new application requires a change to the band plan, or if you are aware of any band planning problems in your area, please advise the NTRC Technical Officers.