

FACT SHEET NO. 12

The Amateur Radio Service

What is it?

The Amateur Radio Service is a radio communication service in which radio apparatus is used for the purpose of self training, intercommunication of technical investigation by individuals who are interested in radio techniques solely with a personal motive, without money or profit making interest. It is therefore a non-profit organization.

Enthusiasts who constantly perpetuate this service are called “Radio Amateurs”, sometimes commonly known as “Hams”

General

Amateur radio, sometimes commonly called Ham Radio, is a hobby engaged in by millions throughout the world (about three million world wide). Hence, it is a global fraternity of people with common, yet widely varying interests, able to exchange ideas and learn more about each other with every on – the – air contact.

An important point to note is that the Amateur radio service is, for the most part, a simplex mode of communication; that is, communication is by direct radio to radio, which means there is no need to go through a network provider in order to make contact with another Radio Amateur.

Self-Reliance

Most Radio Amateurs design, construct, modify and repair their radio equipment or station and many of them construct and design their own antennae.

Benefits of the Service

Public service

In times of crisis such as natural disasters, the Radio Amateur service can be used to disseminate vital information quickly.

The service becomes strikingly important when:

1. Regular radio service fails or is disrupted.
2. Both wire and cellular telephone services fail or are overloaded (as is usually the case in some disasters)
 - The service allows friends, family members and strangers to communicate.
 - It enhances international relations.
 - It allows millions of enthusiasts to communicate worldwide, providing opportunities for knowledge and self – advancement.
 - It promotes the art of radio communication, and therefore the expansion of a team of trained radio operators.

Ways of Communicating

The Radio Amateur Service exchange messages by **Voice**

Single Sideband
Amplitude Modulation
Frequency Modulation

(SSB, AM FM), **Telemetry** (CW (Morse Telegraphy)) (DIGITAL (Teleprinter, Teletype, Rtty)) **Facsimile, Television** and **Satellite** using Digital or Analog. Pulse and Spread – Spectrum forms of transmissions may also be used.

Frequencies And Bands Used

The following is a list of frequency bands and corresponding meter bands used in the Radio Amateur service.

MEDIUM FREQUENCY (0.3 to 3.0MHz)

1.8 – 2.0MHz.....160Meters

HIGH FREQUENCY (3.0 to 30MHz)

3.5 – 4.0 MHz.....80Meters

5.332 – 5.405 MHz....60 Meters

7.0 – 7.3 MHz.....40 Meters

10.1 – 10.15 MHz.....30 Meters

14.0 – 14.35 MHz.....20 Meters
 18.068 – 18.168 MHz...17 Meters
 21.00 – 21.450 MHz.....15 Meters
 24.89 – 24.99 MHz.....12 Meters
 28.00 – 29.7 MHz.....10 Meters

VERY HIGH FREQUENCY (30 to 300MHz)

50 – 54 MHz.....6 Meters
 144 – 148 MHz..... 2 Meters
 222 – 225 MHz.....1.25 Meters

ULTRA HIGH FREQUENCY

420 – 450 MHz.....70cm
 902 – 928 MHz.....33cm
 1240 – 1300 MHz.....23cm

There are other Amateur bands as well covering frequencies as low as 135Khz and as high as 300Ghz.

Trends

Repeaters (miniature receive and transmit stations) are used for better and wider coverage in Amateur radio service.

Satellites constructed by Radio Amateurs are used for global communication of information. One such satellite is one which is called OSCAR (Orbiting satellite carrying Amateur Radio)

Recent Trends

Digital voice encoding techniques are now being used in Radio Amateur.

Three Dimensional Television Equipment is available to transmit TV pictures from the Radio Amateur's own home station to another Radio Amateur.

Computers Voice over Internet protocol (VOIP) is also finding its way in Amateur Radio. Programs like Echolink tie Amateur operators with computers into Amateur Radio repeaters across the globe. The Internet Radio Linking Project (IRLP) utilizes VOIP to tie repeaters together directly by user command.

How can one become a Radio Amateur?

Any interested enthusiast over the age of 21 can become a radio Amateur by obtaining a Barbados radio Amateur's station's licence which would authorize him/her to establish and operate an Amateur station. However, he or she must first satisfy the ministry responsible for Telecommunication that he or she has the necessary qualifications and skills to operate an Amateur station without causing any radio interference to other users or radio services.

Applicants under age 21 but above age 16 are also eligible, however, his/her application for licence must be counter-signed by a parent or guardian or by any other person approved by government. The prospective Amateur can acquire the necessary qualifications in radio Amateur from:

1. A recognized institution which is acceptable to the Ministry, or,
2. by being successful in an Examination in Radio Amateur, set in December every year by the Ministry responsible for Telecommunications.

The examination consists of a written paper **Part I** which is divided into two (2) sections, and a practical Morse test **Part II**, which involves both sending and receiving Morse at a specified rate. If the applicant is successful in the examination, a licence may be granted upon successful completion of an application form. A call-sign is then given to the new applicant.

A **Call-sign** is a distinguished and unique way of identifying the amateur operator and his/her station on commencing a transmission. The call-sign is unique to the Amateur operator and is often a source of pride.

All call-signs for Barbados begin with the prefix "8P"

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