

South Bristol Amateur Radio Club Foundation Course

Lesson One

1.0 About The Course

- 1.1 This course consists of a series of lessons and assessments. The course covers the basics of radio communication, operator skills and safety practices when setting up amateur radio equipment.
- 1.2 The course also includes a simple Morse code assessment. It introduces you to the basics of Morse code (you are not required to send and receive efficiently). The course as run by the South Bristol ARC comprises 10 lessons as follows:
 - Lesson 1: About the course, nature of amateur radio and licence structure.
 - Lesson 2: Licence conditions and technical basics #1 (electricity and frequency).
 - Lesson 3: Transmitters, receivers and technical basics #2 (prefixes).
 - Lesson 4: Technical basics #3 (voltage, current, resistance & power) and licence schedule.
 - Lesson 5: Feeders, antennas and SWR.
 - Lesson 6: Propagation and electromagnetic compatibility.
 - Lesson 7: Safety, operating practices and procedures.
 - Lesson 8: Practical assessments (over several weeks depending on number of candidates).
 - Lesson 9: Morse assessment.
 - Lesson 10: Mock exam and preparation for main exam.
- 1.3 At the end of the course you will take the exam (45 minutes) that consists of 25 multiple choice questions, each question having four possible answers, only one of which is correct.
- 1.4 In order to obtain a pass you are required to answer at least 18 of the questions correctly.
- 1.5 The good news about this exam is that you will receive your results on the same evening. Successful candidates will receive the necessary paper work to apply for their Foundation Licence.
- 1.6 This course will cost a total of £23 per candidate. Of this; £20 goes to the Radio Society of Great Britain (RSGB) for processing & exam fee and £3 covers printing costs for handouts.
- 1.7 Note: You will be able to purchase the Foundation Licence Pack, which includes the Foundation Manual, at a cost of £4.24. We will be following this publication throughout the duration of the course.
- 1.8 Successful candidates that pass the exam can, if they wish, apply for an optional certificate at a cost of £10.
- 1.9 Course Tutor: Andy Jenner G7KNA. If you need to contact me outside our lesson times my contact details are:

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2.0 Nature of Amateur Radio

(Syllabus section 1a)

(Manual page 17)

2.1 With amateur radio you can communicate all over the world or just speak to your friends across town. To communicate on amateur radio you **must** have a licence. It is the law!

- Self-training and experimentation in radio communications.
- Non-commercial in nature.

2.2 Useful in areas of:

- Technical innovation.
- Emergency communications.
- International friendship.
- Recreational use.

3.0 Amateur Radio Licence Structure:

(Syllabus sections 2a & 2b)

(Manual page 17)

3.1 Following the amendments in July 2003, the UK amateur radio licence structure now comprises of three licence classes:

- Foundation Licence.
- Intermediate Licence (previously known as Novice).
- Advanced Licence (previously known as Full).

3.2 The entry level is the Foundation Licence. The Intermediate and Advanced Licences allow greater facilities and the ability to build and modify transmitting equipment.

3.3 Note that many countries do not accept the UK Foundation Licence.

3.4 Every licensed radio amateur in the UK is issued with a unique call sign. The call sign format is determined by the licence class and the region the licensee is operating from. The current call sign allocation is:

- Foundation: M*3ABC
- Intermediate: 2*0ABC or 2*1ABC
- Advanced: M*0ABC or M*1ABC

3.5 The M and the 2 (and also G) are the internationally recognised prefixes for the UK. The ABC represents the three letters allocated to the individual.

3.6 The * is replaced by the appropriate Regional Secondary Identifier letter:

- D Isle of Man
- E England (Intermediate call signs only)

- I Northern Ireland
- J Jersey
- M Scotland
- U Guernsey
- W Wales

3.7 This is represented in table form below.

Current UK Amateur Call Signs				
Class of Licence	Prefix	Regional Secondary Identifier	Number	Suffix
Foundation	M	D, I, J, M, U, W	3	Three Letters
Intermediate	2	D, E, I, J, M, U, W	0, 1	Three Letters
Advanced	M	D, I, J, M, U, W	0, 1	Three Letters

Note that the E regional secondary identifier is not used for Foundation or Advanced licence call signs.

3.8 For example: MW3XYZ is a Foundation Licence and its holder is in Wales.

- M3BCD is Foundation Licence in England.
- 2M0CDE is an Intermediate Licence in Scotland.
- 2E1EFG is an Intermediate Licence in England.
- MD1JKL is an Advanced Licence in the I.O.M.
- M0MNO is an Advanced Licence in England.

3.9 The older UK call signs use a G prefix, and maintain the same Regional Secondary Identifiers as the Advanced licence described above.