

Is Amateur Radio still popular?

There are almost 2,000 licensed amateur radio operators in Ireland, and over 80,000 in the UK. So yes, it's still popular!

It maintains its popularity by having so many areas for amateurs to explore within the hobby. SOTA is one such area, allowing people to combine an interest in the outdoors with radio.



Other popular areas include:

- Working directly with orbiting amateur radio satellites.
- Designing and building radio components.
- Using computer generated modes which allow communication over much further distances than voice.
- Taking part in emergency and disaster relief communications.
- Establishing communication via meteor trails, aurora, and even bouncing signals off the Moon!
- Taking part in contests to contact as many other stations as possible!

Where can I get more information?

To find out all about Amateur Radio in Ireland visit the Irish Radio Transmitters Society

www.irts.ie

For more on SOTA see

www.sota.org.uk



All 454 SOTA Summits on the Island of Ireland

Leaflet produced by Albert White, EI6KO



Summits On The Air!

Summits on the Air (**SOTA**) is an award scheme for radio amateurs and listeners that encourages portable radio operation in mountainous areas. SOTA has been carefully designed to make participation possible for everyone! There are awards for Activators, licensed amateurs who hike to the summit to operate a portable radio station; and Chasers who stay in the comfort of their home and communicate with the Activators; and Short Wave Listeners.



A SOTA activation on Djouce, Co. Wicklow



Irish Radio Transmitters Society

Established in 1932

Amateur Radio in Ireland



Who do you talk to?

Any other amateur radio operator! Some activators may use Very High Frequency (VHF) radios which operate a bit like regular FM radio stations, and so will try to talk to people within 100km or so. Others will use High Frequency (HF) where, under the right conditions, it's possible to make contacts anywhere in the world!



Denis (VA2IEI) enjoying the winter sun activating Cap-Tourmente in Quebec. (Photo by VA2IEI <https://flic.kr/p/bre8Ym>)

But it's not just talking. Some operators will use Morse Code as well. You can even use digital modes which let you send SMS like messages over the radio – though those will require a laptop or tablet which means you have more to carry up the mountain!

You mentioned a license?

In order to participate as an Activator or a Chaser you need to be a licensed amateur radio operator.

To obtain a license you must pass an exam set by the Communications Regulator (ComReg) and administered by the Irish Radio Transmitters Society (IRTS). The multiple choice exam covers radio regulations, operating procedures, electronics and radio theory; there is **NO** requirement to know Morse Code. The IRTS provides a course guide to help you study and many Amateur Radio Clubs will run classes to help you prepare. More details are available on www.irts.ie

Section B – Amateur Radio Theory and Related Topics (30 Questions)

B.1 Electrical and Electronic Principles including Components and Circuits (8 questions)

Syllabus	Notes for Candidates
DC, Resistors and Ohm's Law <ul style="list-style-type: none"> Meaning of the terms voltage, current, resistance and power, the units used to measure them and the relationship between them Ohm's Law and its various formulations Symbols used for the units (V, I, R, W, Ω, kΩ, MΩ etc.) Resistors in series and in parallel, including a combination of series and parallel resistors – current, voltage and power in these circuits Resistor accuracy and its impact on voltage, current and power Power dissipation Conductors, semi-conductors and insulators 	<p>A knowledge of Ohm's Law is essential, however it is equally important to have an intuitive understanding of what happens when resistors are put in series and in parallel.</p> <p>While simple maths may be needed to answer some questions, the "intuitive understanding" referred to above is just as important as mathematical ability.</p> <p>Note that resistors determine both the current flow and the voltage drop.</p>
Inductors <ul style="list-style-type: none"> Units (μH, mH etc.) and symbols Calculations involving series and parallel inductors The effect of number of turns, diameter, length and core material on inductance (qualitative treatment only) Inductance and inductive reactance Impedance 	<p>As in the case of Ohm's Law, the intuitive understanding of how inductors perform in practical circuits is as important as their behaviour in a mathematical sense.</p> <p>Only a general understanding of the effect on inductance of different physical characteristics (number of turns etc.) of inductors is expected.</p> <p>An understanding of the concept of reactance is more important than an ability to calculate the reactance of a component at a given frequency.</p>

What equipment do you use and how much does it cost?

You need a radio, and antenna, and a power source. You can get started for under €100 with a handheld VHF radio with an internal battery (a 'walkie-talkie') and a simple antenna.

Commercial HF rigs tend to cost several hundred euro and also work well with simple, often homemade, antennas. Though they usually require a separate battery, so plan on carrying a couple of extra kilos in your backpack!

Some operators however opt to use very low power homemade or kit Morse Code only radios. These can be exceptionally light and cost only a few euro – but that's not for everyone!



A typical HF setup: Portable radio, microphone, rechargeable battery, and Morse Code 'paddle'.