



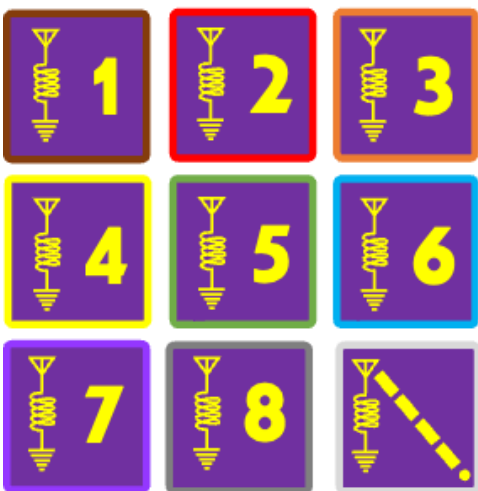
Radio Scouting Skills Program (Version v6.0)

Radio and technology skills have been part of the scouting and guiding journeys since the 1920's. Radio in those pre internet days allowed scouts to get an understanding of the world they belonged to. In 1917, Baden Powel wrote: "The roots of Scouting have grown among young people of all civilised countries and are developing more each day. It might be thought that if in years to come, a considerable proportion of the future citizens of each nation forms part of this brotherhood, they will be joined by a bond of personal friendship and mutual understanding such as has never existed before, which will help to find a solution to terrible international conflicts."



Baden Powel understood the importance of understanding international friendship, unfortunately many Scouts and Guides will never get to an international camp to meet peers from other countries, cultures, and belief systems. Radio and internet technologies are a way of bridging that gap and since 1957 a virtual Jamboree known JOTA-JOTI has become by far the biggest international Scouting and Guiding event with between 800,000 and 1.5m scouts and guides taking part each year. While technology is always changing and advancing, the symbolism and opportunity for understanding that JOTA- JOTI and Radio Scouting embodies is really relevant in today's world.

The objective of the Radio Scouting Skills program badges levels 1-4 is to give scouts, guides, scouters and guide leaders a basic level of understanding of science, electronics and radio communications, including space communications, such that they can competently operate a station safely and with a little bit of extra study they can have their knowledge skills externally validated by exam, obtaining a Novice Amateur Licence, full Amateur Radio License and or a Marine VHF (SRC) of HF (LRC) license.



Radio Scouting Skills Level 1 & 2 are relatively easy for your average scouter or guide leader to learn and teach. After level 2 outside support from RSI, an amateur radio club and or external training may be required if there is limited expertise within your group.

The objective of Radio Scouting Skills program badges levels 5-9 is to give scouts, guides, scouters and guide leaders a high level of competence to operate in many different challenging circumstances and environments as well as a very good level of understanding of radio communications technologies. Stage 5-9 demonstrates a level of proficiency and skill as a radio operator with a good understanding of technology and proven operating skills across a range of different and challenging environments.

There are many training organisations such as National Short Wave Listeners Club, IRTS, RSGB, OARC and Essex Ham to name a few that run free training courses up to and including sitting tests for

the attainment of the various Irish, UK (including NI) and European license classes. An excellent resource is the IRTS study guide which is available to download for free here

<https://www.irts.ie/cgi/st.cgi?study> or for UK/NI residents the RSGB site here

<https://rsgb.org/main/clubs-training/training-resources/>

Marine radio courses for both the Short Range Certificate(SRC) or Long Range Certificate (LRC) are operated on a commercial basis from a number of companies in Ireland and the UK. For example the

SRC course is available online from [https://www.irishoffshoresailing.com/product/online-vhf-](https://www.irishoffshoresailing.com/product/online-vhf-course?utm_source=chatgpt.com)

[course?utm_source=chatgpt.com](https://www.irishoffshoresailing.com/product/online-vhf-course?utm_source=chatgpt.com) or in person in N.I. from [https://rniyc.org/rya-vhf-courses-](https://rniyc.org/rya-vhf-courses-2023?utm_source=chatgpt.com)

[2023?utm_source=chatgpt.com](https://rniyc.org/rya-vhf-courses-2023?utm_source=chatgpt.com)

On submission of evidence of attainment, and cost of badge the awarding scouter(s)/Guide Leader(s) can apply for the corresponding badges for the levels of competence attained. Currently, as of December 2025, all Stage badges and Special Interest/Skill badges are €1.50 each + P&P.

Stage 1 - Brown

- I can name at least 4 things that I know use radio waves
 - e.g. Mobile phones, TV, Radio, WiFi, walkie talkie, Satellites, GPS, Bluetooth, Radar
- I know my parents/guardian/ICE contact phone number and can dial it on a mobile phone
- I can name some radio stations I can hear from my home/den/car
- I know the difference between Commercial and Amateur radio
- I know why amateur radio is a licensed hobby
- I know what morse code is
- I know some aspects of Amateur radio language (Phonetic Alphabet and Q codes, callsigns), I know what a callsign is and the prefix of my own country and I can spell my name using the phonetic alphabet
- I can use a walkie talkie

Evidence required: Any section scouter or guide leader may apply to award this badge once they are satisfied the scout/guide has demonstrated their competency across all the competency statements. To order Badges, the awarding scouter or guide leader must email radioscoutingireland@gmail.com With the following text: 1st name, 2nd Name confirm that "N"- number of scouts/guides have successfully demonstrated their Stage 1 competencies to me, Please find attached some photos of the scouts completing some of the stage 1 activities as supporting evidence.

Stage 2 - Red

- I know what a circuit and EMF is and observed how a circuit affects a compass
- I have built a simple circuit e.g. Artibot-scribble robot, morse key, fan
- I know where Sound, Radio and Light frequencies are with regard to the Spectrum of Electro Magnetic Frequencies
- I know the main components of an amateur radio system
 - Antenna, receiver, speaker, microphone, transmitter
- I know what short wave listening is and I have tuned in to and can recognise morse code, data and voice signals
- I know what the RST system for signal reporting is
- I know how to look up a callsign of an amateur radio station on qrz.com
- I have listened to and logged 5 QSO's and have identified the operators country
- I have operated an amateur or marine radio and given my name and station callsign using the phonetic alphabet and spoken on the radio to another operator

Evidence required: Any section scouter or guide leader may apply to award this badge once they are satisfied the scout/guide has demonstrated their competency across all the competency statements. To order Badges, the awarding scouter or guide leader must email radioscoutingireland@gmail.com With the following text: 1st name, 2nd Name confirm that "N"- number of scouts/guides have successfully demonstrated their Stage 2 competencies to me, Please find attached some photos of the scouts completing some of the stage 2 activities as supporting evidence.

Stage 3 - Orange

- I have taken part in JOAT-JOTI
- I understand low frequency, high frequency, HF, VHF & UHF and can name some characteristics
- I understand low frequencies need larger antennas and high frequencies need smaller antennas
- I understand the concept of signal-to-noise ratio and how directional antennas help
- I understand and can explain the 3 modes of propagation, namely Free-space, Groundwave & Ionospheric propagation
- I can explain why I can hear distant stations on MW, LW and SW and how these changes from night and day

- I know how space weather, particularly the Sun affects radio wave propagation
- I know what objects in the Solar System emit radio waves and I understand the concept of signal to noise ratio
- I understand how a repeater and DMR works and I have made a QSO via a repeater or DMR
- I understand the main radio controls and how to use them, VFO A/B, AGC, RF gain, AF gain, Band select, Mode select, Tune
- I have decoded an SSTV signal
- I have a log of 25 shortwave/HF stations that I have heard on the radio (Can include Amateur and Commercial Stations). Log must include time, date, frequency, mode and signal report, at least 10 of the logs must be in daylight hours and 10 in night time hours.
- I can explain the function of following basic electronic components (Resistor, Capacitor, Inductor, Transistor, Diode/LED and I have completed a working circuit using at least three of these components.
- I have taken part in a scouting event and talked to another operator on the radio, giving my station callsign

Evidence required: Any section scouter, guide leader or RSI member with a UK foundation amateur license, Harec class A or B licence or Marine LRC license may apply to award this badge once they are satisfied the scout/guide has demonstrated their competency across all the competency statements. To order Badges, the awarding scouter or guide leader must email radioscoutingireland@gmail.com With the following text: 1st name, 2nd Name confirm that “N”- number of scouts/guides have successfully demonstrated their Stage 3 competencies to me, Please find attached some photos of the scouts completing some of the stage 3 activities as supporting evidence.

Stage 4 - Yellow

- I can explain resonance and the basics of tuning a half-wave dipole antenna
- I can set up a working station, antenna, PSU transceiver, ATU
- I understand SWR and how to use an SWR meter, analyser and Antenna Tuning Unit (ATU)
- I have built, tuned, and logged at least 3 QSO's on a dipole or ¼ wave GP or similar antenna that I have made and tuned myself
- I understand EMF, PEP, EIRP, the relative danger of electromagnetic waves at various powers and how to set up an antenna safely.
- I can name 10 of the main Amateur radio bands (160,80,60,40,30,20,17,15,12,10,2) and how their propagation might be changed by the time of day, day of year & sun cycle.
- I understand and can explain the following different antenna types ¼ wave ground plane, Dipole, End Fed Half Wave -EFHW, Random wire, Yagi-Uda
- I understand the important of good procedure for communicating via amateur radio
 - I have read and abide by the DX code of conduct
 - I know how to call and answer CQ, how to give signal reports and how to 'break' into an existing communication.
 - I know what 'split' operation is, how to recognise a station is operating split, and when to use it
 - I know how to recognise and operate with a DXpedition station, Competition station & normal amateur radio station
- I understand the importance of a clean signal and how to check if my station is over modulating (radio check or SDR)
- I understand and can use the $P=VI$ equation
- I know the meaning and use of Mayday, PanPan and Securite, I can use radio communications effectively in an emergency situation (Emergencies L7) and I know how to contact emergency services using Marine VHF C16

Evidence required: Any section scouter, guide leader or RSI member with a UK Intermediate or full licence or a Harec class A or B licence or Marine LRC license may apply to award this badge once they are satisfied the scout/guide has demonstrated their competency across all the competency statements. To order Badges, the awarding scouter or guide leader must email radioscoutingireland@gmail.com With the following text: 1st

name, 2nd Name confirm that “N”- number of scouts/guides have successfully demonstrated their Stage 4 competencies to me, Please find attached some photos of the scouts completing some of the stage 4 activities as supporting evidence.

Stage 5 - Green

- I understand how to calculate the resistance of a circuit of parallel or in series resistors
- I understand how to calculate the capacitance of a circuit of parallel or in series capacitors
- I understand how to calculate the inductance of a circuit of parallel or in series inductors
- I understand the concept of a tuned circuit and understand how to calculate the frequency of a tuned circuit
- I can name and explain the characteristics of 3 different types of coax and or transmission line
- I have built a choke and a balun and can explain what they do
- I have completed a simple electronics or Arduino/Raspberry Pi project
- I have studied the curriculum and have sat the exam and obtained a UK Foundation License (no novice license is available yet in Ireland, but ROI scouts can sit the UK exam and obtain a certificate, they cannot get a UK novice license though.) OR I have studied the marine VHF license curriculum and have sat the exam and obtained a Marine VHF License (SRC).

Evidence required: Any section scouter, guide leader or RSI member who has attained stage 7 or above may apply to award this badge once they are satisfied the scout/guide has demonstrated their competency across all the competency statements. To order Badges, the awarding scouter or guide leader must email radioscoutingireland@gmail.com with photo's of the scouts or guides doing the activities and a photo or scan of the license(s), with the following email text: 1st name, 2nd Name confirm that “N”- number of scouts/guides have successfully demonstrated their Stage 5 competencies to me, Please find attached some photos of the scouts completing some of the stage 5 activities as supporting evidence.

Stage 6 - Blue

- I have completed at least 2 of the following Amateur Radio/Radio Scouting Special Activities with at least 10 QSO's : IOTA, POTA, JOTA, SOTA, DxPedition, AREN exercise, Competition
- I have built and tuned a multiband antenna with at least 3 bands (e.g. nested ¼ waves or fan dipole)
- I have built an electronic gadget and can use a soldering Iron to solder components onto a PCB
- I can detect meteors using radio
- I have set up an operated on a scout camp or field day event without the use of mains power electricity
- I have logged at least 200 QSO's across a minimum of 3 modes (SSB< AM, FM, Digi e.g. FT8, CW.)
- I have logged at least 50 different countries (DXCC entities)
- I have obtained an Amateur Radio HAREC Class A or B licence, Marine LRC license or UK full license

Evidence required: Any section scouter, guide leader or RSI member who has attained stage 8 or above may award this badge once they are satisfied the scout/guide has demonstrated their competency across all the competency statements. To order Badges, the awarding scouter or guide leader must email radioscoutingireland@gmail.com with scans or photo's of license(s) achieved and log evidence received and the following email text: 1st name, 2nd Name confirm that “N”- number of scouts/guides have successfully demonstrated their Stage 6 competencies to me, Please find attached some photos of the scouts completing some of the stage 6 activities as supporting evidence.

Stage 7 - Violet

- I have competed in a competition and made >100 verified/scored qso's

- I have supervised a station at a JOTA-JOTI or similar multi station event
- I have made a contact over an amateur radio satellite
- I have conducted 50 assisted* CW QSO's (* using a keyer and skimmer/decoder)
- I have achieved DXCC on at least 4 bands (LOTW or QRZ.com certified)

Evidence required: Two section scouters, guide leaders or RSI members who have attained stage 8 or above may apply to award this badge once they are both satisfied the scout/guide has demonstrated their competency across all the competency statements. To order Badges, both awarding scouters or guide leaders must email radioscoutingireland@gmail.com with scans or photo's of log evidence received and the following email text: 1st name, 2nd Name confirm that "N"- number of scouts/guides have successfully demonstrated their Stage 6 competencies to me, Please find attached some photos of the scouts completing some of the stage 6 activities as supporting evidence.

Stage 8 (Grey)

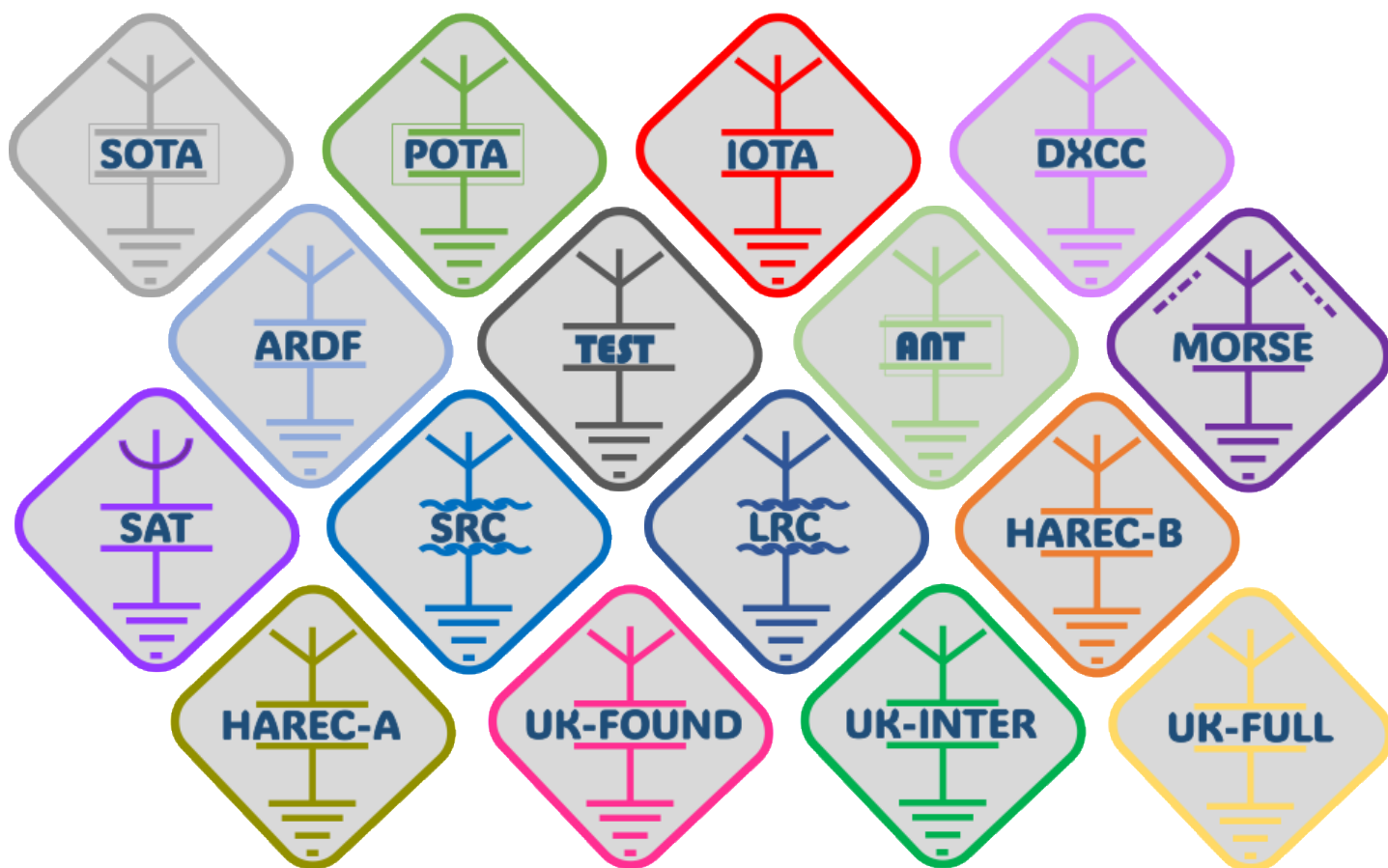
- I have achieved DXCC on at least 6 bands
- I have built a simple morse code oscillator and can send my callsign, 599 and 73
- I have operated in another country
- I can send and receive morse code at 5 wpm or more
- I have obtained a Class A licence Harec license or equivalent

Evidence required: Two section scouters, guide leaders or RSI members who have attained stage 8 or above may apply to award this badge once they are both satisfied the scout/guide has demonstrated their competency across all the competency statements. To order Badges, both the awarding scouters or guide leaders must email radioscoutingireland@gmail.com with scans or photo's of log, license, CW competency and DXCC award evidence received and the following email text: 1st name, 2nd Name confirm that "N"- number of scouts/guides have successfully demonstrated their Stage 6 competencies to me, Please find attached some photos of the scouts completing some of the stage 6 activities as supporting evidence.

Stage 9 (Silver)

- I have completed 50 DXCC's on 160m and 6m
- I have completed at least 1 DXCC award on CW, Phone & Digital modes (LOTW or QRZ.com certified)
- I can send & receive CW reliably ≥ 25 wpm (Verified by membership of CWOPS or FOC)
- I have completed at least 5 of the following special activities of : IOTA, POTA, JOTA, SOTA, DxPedition, AREN exercise, Competition (verified by submission of evidence)

Evidence required: Two section scouters, guide leaders or RSI members who have attained stage 8 or above may apply to award this badge once they are both satisfied the scout/guide has demonstrated their competency across all the competency statements. To order Badges, both the awarding scouters or guide leaders must email radioscoutingireland@gmail.com with scans or photo's of logs, license, CW competency and DXCC award evidence received and the following email text: 1st name, 2nd Name confirm that "N"- number of scouts/guides have successfully demonstrated their Stage 6 competencies to me, Please find attached some photos of the scouts completing some of the stage 6 activities as supporting evidence.



Radio Scouting Special Interest/Special competency badges

While the early stages of the Radio Scouting Skills program are relatively easy to attain, the stages get progressively more challenging to attain with the latter stages requiring a significant commitment over a number of years to achieve.

Within the program steps the scouts or guides may have had to work particularly hard to attain the evidence to support a specific skill or competency. Some of these skills and competencies may come easier to some while being harder for others and vice versa. But all require a level of commitment and hard work. To recognise this commitment and hard work, alongside the Stage 1-9 badges are a set of complimentary Radio Scouting Special Interest/Special competency badges that allow scouts and guides be recognised as they attain some specialised skills within the program. The following are the current badges and evidence requirements:



Requirement: I have completed 2 SOTA activations (≥ 4 qso's each) totaling a minimum of 14 SOTA points.

Evidence required: email radioscoutingireland@gmail.com with photos at the top of each summit + your logs of the activation, which must include the callsign you used, the summit references, the other stations call signs, the date, time and signal reports exchanged.



Requirement: I have completed 2 POTA activations (≥ 10 qso's each)

Evidence required: email radioscoutingireland@gmail.com with photos of the scout(s)/guide(s) at the Park entrance + your logs of the activation, which must include the callsign you used, the POTA references, the other stations call signs, the date, time and signal reports exchanged.



Requirement: I have completed an IOTA activations (≥ 20 qso's each)

Evidence required: email radioscoutingireland@gmail.com with photos of the scout(s)/guide(s) on the Island + your logs of the activation, which must include the callsign you used, the IOTA references, the other stations call signs, the date, time and signal reports exchanged.



Requirement: I have completed DXCC on one or more bands where $N \geq 2-12+$

Evidence required: email radioscoutingireland@gmail.com with a copy of your certification from LOTW, QRZ.com or ClubLog.



Requirement: I have completed an ARDF exercise and found ≥ 2 hidden transmitters

Evidence required: email radioscoutingireland@gmail.com with details of the ARDF activity – host club, contact details and photo's of you doing the activity.



Requirement: I have built and tuned my own antenna

Evidence required: email radioscoutingireland@gmail.com with a photo of the scout(s)/guide(s) with the antenna built plus a screen shot or photo of the analyser plot for the tuned antenna.



Requirement: I know the morse code alphabet, numbers and punctuation ≥ 5 wpm

Evidence required: email radioscoutingireland@gmail.com with a photo of a certificate, licence or other suitable evidence.



Requirement: I have made ≥ 10 Qso's via satellite

Evidence required: email radioscoutingireland@gmail.com with a photo of the scout(s)/guide(s) with the Satellite station and a copy of your logs.



Requirement: I have completed a marine VHF course and achieved a SRC certificate

Evidence required: email radioscoutingireland@gmail.com with a photo of the certificate.



Requirement: I have completed a HF marine course and achieved a LRC certificate

Evidence required: email radioscoutingireland@gmail.com with a photo of the certificate.



Requirement: I have completed a HF marine course and achieved a LRC certificate

Evidence required: email radioscoutingireland@gmail.com with a photo of the certificate.



Requirement: I have completed a HAREC course and passed the HAREC class B exam

Evidence required: email radioscoutingireland@gmail.com with a photo of the certificate.



Requirement: I have completed the UK foundation exam and received a UK certificate

Evidence required: email radioscoutingireland@gmail.com with a photo of the certificate.



Requirement: I have completed the UK intermediate exam and received a UK certificate

Evidence required: email radioscoutingireland@gmail.com with a photo of the certificate.



Requirement: I have completed the UK Full exam and received a UK certificate

Evidence required: email radioscoutingireland@gmail.com with a photo of the certificate.