

Explore the Magic of Radio!

Earn your Amateur
Radio license!

Make friends around the world!



Emergency Communications Build equipment



Public Service



Storm Reporting



Exotic Locations

For more information
contact
Al Penney at (902) 847-0554
or at
alphonsepenney@gmail.com

Basic Course 2024-2



Annapolis Valley Amateur Radio Club

Basic Course 2024-2

- Course starts Sunday 14 April.
- Course ends mid June.
- Classes held Thursday evenings and Sunday afternoons.
- Thursday and Sunday classes are different – you need to watch both!
- Classes are recorded – **link will be sent next day.**

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Course Timings

- Thursday classes
 - 1930 – 2200 Newfoundland
 - 1900 – 2130 Atlantic
 - 1800 – 2030 Eastern
 - 1700 – 1930 Central
 - 1600 – 1830 Mountain
 - 1500 – 1730 Pacific

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Course Timings

- Sunday classes
 - 1430 – 1700 Newfoundland
 - 1400 – 1630 Atlantic
 - 1300 – 1530 Eastern
 - 1200 – 1430 Central
 - 1100 – 1330 Mountain
 - 1000 – 1230 Pacific

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Instructor

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Course Schedule

Apr 14 (S)	Ch 1 Introduction
Apr 18	Ch 2 Basic Electricity
Apr 21 (S)	Ch 3 Ohms Law
Apr 25	Ch 4 Part 1 Inductance, Capacitance
Apr 28 (S)	Ch 4 Part 2 Resonance
May 2	Ch 5 Waves
May 5 (S)	Ch 6 Propagation
May 9	Ch 7 Transmission Lines
May 12 (S)	Ch 8 Antennas Part 1
May 16	Ch 8 Antennas Part 2
May 19 (S)	Ch 9 Active Devices
May 23	Ch 10 Power Supplies
May 26 (S)	Ch 11 Establishing a Station
May 30	NO CLASS (RAC Board Meeting)
Jun 2 (S)	Ch 12 Operating a Station
Jun 6	Ch 13 Modulation and Transmitters
Jun 9 (S)	Ch 14 Receivers
Jun 13	Ch 15 Radio Frequency Interference
Jun 16 (S)	Ch 16 Safety
Jun 20	Ch 17 Regulations

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Class Format

- Log on no sooner than 20 minutes before start time.
- Classes may run late!
- Leave mic off during class.
- I will ask questions – no class answers please!
- 5 minute break halfway through class.
- Use the Chat box for questions – I will monitor.
- Technical issues, Zoom problems – check e-mail.
- Try to attend classes, though occasional absence is okay.

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Lesson Plans

- PowerPoint presentations will be available (in PDF) from <https://avarc.ca/index.php/online-basic-course/>
- Lots of other educational material on the AVARC website.
- **Classes will be recorded. Link will be sent after each class.**

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Discord Server

- Previous courses have had a Discord server to allow students to discuss topics of interest outside of class.
- A previous course has established one for all follow-on courses:
<https://discord.gg/xuXcUmTE>
- Link to Anki question bank there:
<https://ankiweb.net/shared/info/617183868>

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E-Mail

- A suggestion about the e-mails I send....

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E-Mail

- A suggestion about the e-mails I send....

READ THEM!!

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Course Philosophy!

- This is not a “memorize the answer to the question” type of course!
- We will learn more than is required to pass the exam!
- There will be lots of supplemental material to enrich your knowledge.
- When the course is over however, you will be ready to assemble a station and get on the air!

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Exams

- Exams are not included in the course.
- When you are ready, you schedule an in-person exam with an Accredited Examiner.
- Contact an examiner in your area and work out a date/time/location to write the exam.
- Procedures explained later this lesson.

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Questions?

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Amateur Radio!

What is Amateur Radio?

Ham Radio is...

- A form of communication...



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Ham Radio is...

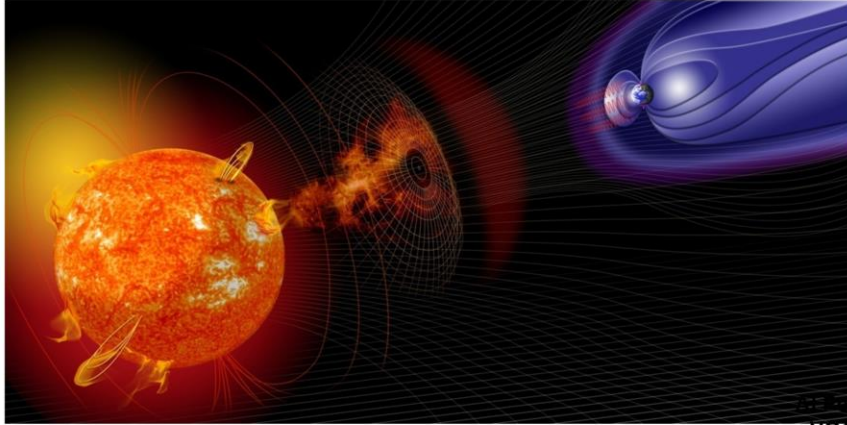
- A Public Service...



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Ham Radio is...

- A chance to explore science...



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Ham Radio is...

- A stepping stone to a lifelong career!



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Dr. Joe Taylor K1JT

Astronaut Chris Hadfield VA3OOG

What do Hams do?

- Use Morse Code...



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What do Hams do?

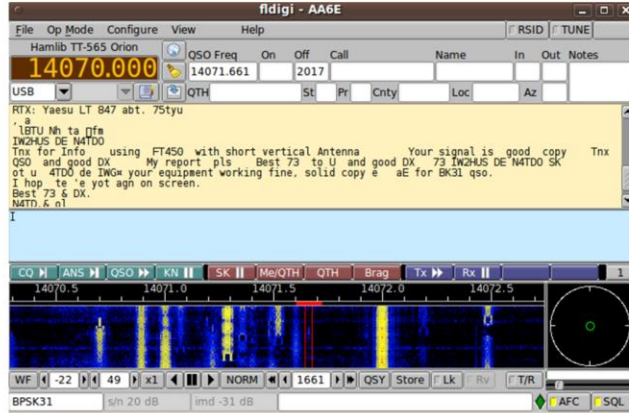
- Use voice transmissions...



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What do Hams do?

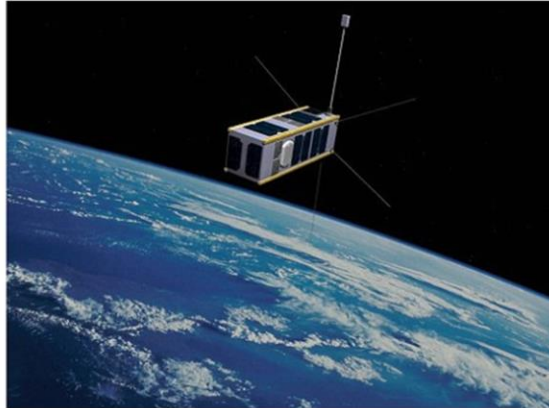
- Use digital modes...



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What do Hams do?

- Build and use their own satellites...



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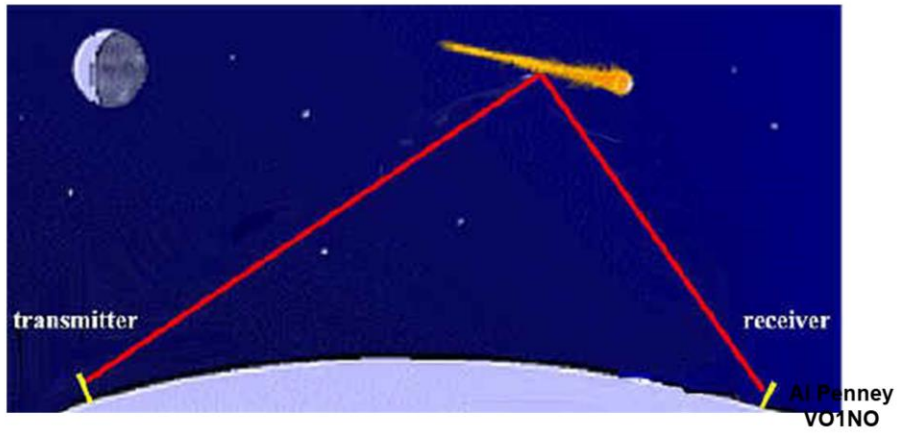
Sputnik 1 was the first [artificial Earth satellite](#). It was launched into an elliptical [low Earth orbit](#) by the [USSR](#) on 4 October 1957 as part of the [Soviet space program](#). It orbited for three weeks before its batteries died and then orbited silently for two months before it fell back into [the atmosphere](#) on 4 January 1958.

OSCAR I (aka [OSCAR 1](#)) is the first [amateur radio satellite](#) launched by Project OSCAR into [low Earth orbit](#). OSCAR I was launched December 12, 1961, by a [Thor-DM21 Agena B](#) launcher from Vandenberg Air Force Base, Lompoc, California. The satellite, a rectangular box (30 x 25 x 12 cm) weighing 10 kg., was launched as a secondary payload (ballast) for [Corona 9029](#), also known as [Discoverer 36](#), the eighth and final launch of a KH-3 satellite.

More than 150 Amateur satellites have been launched since then.

What do Hams do?

- Bounce signals off meteor trails...



An estimated 25 million meteoroids, micrometeoroids and other [space debris](#) enter Earth's atmosphere each day, which results in an estimated 15,000 tonnes of that material entering the atmosphere each year.

What do Hams do?

- Bounce signals off the Moon...



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Project Diana Feb 1946. First Amateur RX of moonbounce in 1953. First Amateur QSO 1960.

What do Hams do?

- Build their own equipment...



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What do Hams do?

- Talk to Astronauts...



For most amateur radio operators, it is the thrill of a lifetime to receive a "CQ", or general call, from an astronaut in space. But for some, like former astronaut Dr. Owen K. Garriott, call sign W5LFL, the thrill comes from receiving a response from "hams" down on Earth.

Garriott, who has been an amateur radio operator for over 40 years, was the first astronaut to take a ham radio into space, pioneering the way for an increasingly well developed amateur radio space program.

"It was my good fortune to take the first amateur radio into space on STS-9 in November 1983," Garriott said. "In my spare time only, I managed to hold up an antenna to the window and to talk to amateurs on Earth."

What do Hams do?

- Experiment with cutting edge technology...



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What do Hams do?

- Find hidden transmitters...



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What do Hams do?

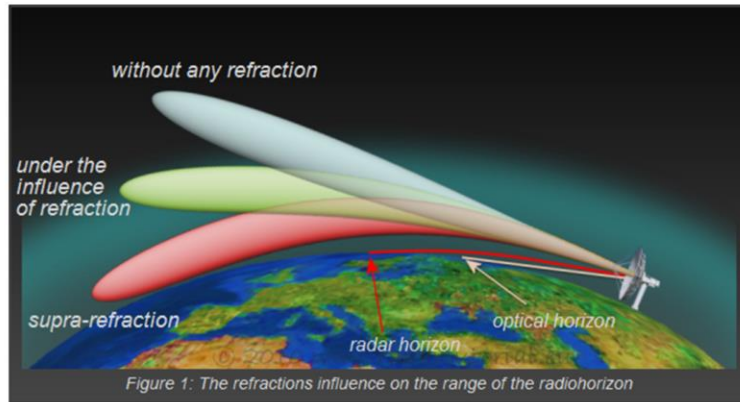
- Help in time of disaster...



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What do Hams do?

- Advance scientific knowledge...



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What do Hams do?

- Make friends around the world...



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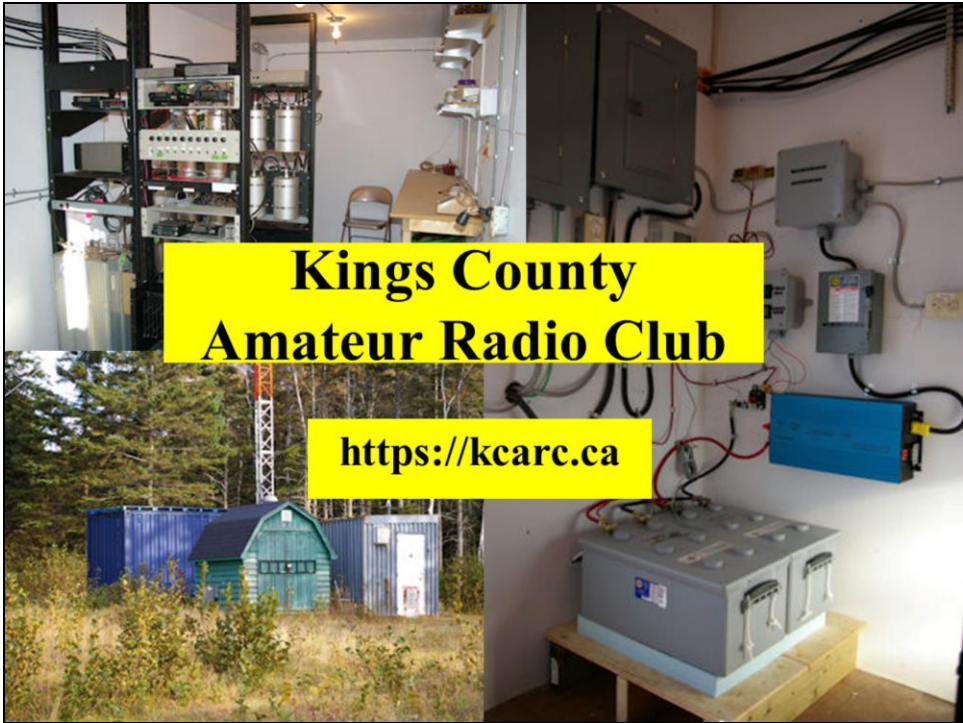
Father Moran, Nepal

Annapolis Valley Amateur Radio Club

www.avarc.ca

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**Kings County
Amateur Radio Club**

<https://kcarc.ca>



Amateur Radio!

