# SCARS Technician / General License Course

Week 1

#### Introductions

- State your name and a little about yourself.
- Why are you taking this course?
- What do you know about ham radio?
- What expectations do you have for yourself and your instructors?

#### Expectations

Class will start and end on time.
Instructor will be prepared for each topic.
Students are expected to read assigned material before class and be ready to learn.
Ham radio is NOT a spectator sport. Active participation in class is vital to success in obtaining your Technician Class license.

## **Course Overview**

- Welcome to Amateur Radio
- Radio and Signal
- Fundamentals

and Feed Lines

Electricity, Components
 and Circuits
 Propagation, Antennas

- Amateur Radio Equipment
- Communicating with other Hams
- Licensing Regulations
- Operating Regulations Safety

### Let's Get Started

 Our goal during this class is for each of you to achieve the Technician class Amateur Radio license! The license will authorize you to operate an Amateur Radio (ham radio) transmitter.

#### What Is Amateur Radio?

Amateur (or Ham) Radio is a personal radio service authorized by the Federal Communications Commission (FCC)

To encourage the advancement of the art and science of radio.
To promote the development of an emergency communication capability to assist communities when needed.

- To develop a pool of trained radio operators.

- To promote international goodwill by connecting private citizens in countries around the globe.

Through ham radio, you will become an ambassador for your community and your country.

#### What Is Amateur Radio?

Amateur (or Ham) Radio is a personal radio service authorized by the Federal Communications Commission (FCC)

- The Amateur Radio Service is governed by Part 97 of the FCC Rules and Regulations.
  - Anyone can be a ham radio operator, there is no age limit.
- Amateur Radio operators cannot accept payment of any type for operating their radio, whether money or other goods or services.

# What Do Hams Do?

- Communicate
- Experiment
- Build
- Compete
- Serve their communities
- Engage in lifelong learning

# What Makes Ham Radio Different?

- There are many unlicensed radio services available. (FRS, GMRS, etc.)
  - Amateur Radio is very flexible...
    - Fewer restrictions
    - More frequencies (channels or bands)
    - More power (to improve range and quality)
    - More ways to communicate
    - It's FREE to operate your radio!

# With More Privileges Comes More Responsibility

- Ham radios are much more capable and have the potential of interfering with other radio services.
- Ham radios have unlimited reach, they easily reach around the globe and into space.
  - FCC authorization is required to ensure the operator is qualified to operate safely, legally and effectively – this is why you are here.

# **Steps To Obtaining Your License**

- Study the material in the Ham Radio License manual (Make sure you have the current edition).
  - Review the question pool (back of the book).
  - Take practice exams (www.qrz.com).
- Pass a proctored 35 question multiple choice test.
  - Questions pulled directly from the question pool.
  - Need to answer 26 questions correctly.

# **Reasons to Upgrade**

- More frequencies
- More communications modes
- New technical opportunities
- More fun!



# **General Class Overview**

- To qualify for a General class license, you must pass Elements 2 (Technician) and 3 (General)
- A Technician licensed before March 21, 1987, may upgrade to General by going to a test session with proof of being licensed before that date
- An EXPIRED beyond the 2-year grace period General class license may be renewed after passing the Technician license exam
- Morse code is alive and well on the Amateur bands, although it's no longer required for any Amateur license

