

## 2T License Class 13 Weeks Advertisement and course Guide

The Problem: You got your Tech ticket (or General, or Extra) but you don't feel like you know how to do anything. You have read the stuff in the license manual, but a lot of it does not seem really relevant to getting on the radio and having fun.

You hear hams in the club meetings talk about working some special event station or some hot DX and hitting the satellite, or working PSK or RTTY, but you don't really know what all that is. Not only are you afraid to ask a question, you don't even really know what questions to ask.

Deep down you want to get into Ham Radio. You want to learn how to operate CW. You want to put a station on the air without feeling lost and unsure of yourself and afraid to ask a question. You want to come out to Field Day and be one of those people setting things up, running wire, and hooking up transmitters. You don't want to be one of those people who just stand around with no idea of what is going on, anymore.

Have we got a deal for you!

The Brandon Amateur Radio Society is setting up a different kind of radio class. We are setting up a program to do a serious job of training you to be a radio operator. It will not be difficult, but it will be arduous. It will require you to be dedicate, diligent, and deliberate. When you successfully complete this course you will know how to set up a station, operate on the air, and have something on your ham shack wall that very few hams ever attain. What's more, you will have real pride in your accomplishment.

Announcing the BARS 13-week Radio Operator Class.

During this 13-week course you will learn

- How to get in on all the FUN that radio has to offer
- How to be a valuable communications asset in times of emergency – because you will KNOW how to set up a station and operate on the air.

In addition to all of this you will qualify for your Second Class Commercial Radiotelegraph Operator Certificate. You won't just take a class – you will have a commercial ticket and some serious “bragging rights”.

Here is how it works:

- All students signing up for this class need to have the General Class Amateur Radio License by the time class starts.

- The class will run for 13 weeks. There will be 33 class sessions. It's set up for 33 classes instead of 39 because we will lose a few days because of BARS meetings and some church schedule conflicts.
- Classes will meet Monday, Tuesday, and Thursday nights from 7 to 8:45 p.m. at Brandon Assembly of God (where we have our club meetings).
- You will be able to work at home on your computer for additional CW training.
- Instructors will be able to help you outside of class (weekends and non-class days).
- There will be about 25 hours of Morse Code instruction + you will get a CD to load on your computer at home so you can do more on your own. You will learn how to really operate and work contests on the air – not just dull code instruction!
- There will be about 25 hours of theory instruction – not just electronics stuff, but the key things you need to know to set up and operate your ham station:
  - How to set up your station
  - How to build some simple, low cost antennas
  - How to use an antenna tuner
  - How to operate SSB on HF and Multi-mode on VHF and UHF
  - How to set up and operate PSK and SSTV
  - You will learn some radio history
- You will also enroll in a computer-based on-line training program for the commercial licenses.
- We will have two radio operating events on the weekend after the 7<sup>th</sup> or 8<sup>th</sup> week and a “radio field trip” pm the weekend after the 10<sup>th</sup> week.

This is not a passive, sit in a classroom program. This is a hands-on, sweat, put out a lot of effort program.

Costs: We are not charging for the training we provide. There are costs to the program, however:

- (1) You will need to buy or borrow a code oscillator and key to practice the code.
- (2) You will need a notebook to take notes
- (3) You will pay about \$16 for the computer based study access during the last four weeks of the program.
- (4) The cost for the 2<sup>nd</sup> Class Commercial Telegraph test is \$75 and you have to bring two passport type photographs to send off with your completed test and license application.

When does it start?

Current plans call for a class to get under way on (Notional Dates)

- (1) Mon 23 Jan to Mon 23 Apr Test on Tue 24 Apr
- (2) Mon 20 Feb to Tue 22 May Test on Tue 29 May
- (3) Mon 19 Mar to Thu 14 Jun Test on Tue 26 Jun (after FD)

It's up to you. If you really want to dive into Ham Radio, if you really want to get past the beginner stage, if you want to be someone answering questions instead of asking them **THIS CLASS IS FOR YOU**. Interested? Contact:

### 13 Week Radio Operator Class Schedule Revised 28 July 2011

At three classes per week = 39 classes (1.75 hours each) 7-8:45.

Subtract 3 class days for BARS meetings and 3 for church events preventing our use of facilities= 33 classes = 49.5 hours of class time.

Pure code classes: 20 hours to learn basics of code. In order to break some of that up, some classes may have 30 minutes of code training, 30 minutes of other material, and finish with 30 minutes of code training. After initial code training every class will have a minimum of 15 minutes for code, but will cover other material as well. The goal is to have 25 hours of CW training for the entire course. This will cover learning the code and operating on the air.

Student prerequisites: All students must have at least a General Class Amateur Radio License. Some on-the-air operating experience will be helpful, but it is not required.

#### Other Items to Cover

Course Topic and Arrangement	Event Time	Total Time
How to set up your station and antennas (three 30-minute sessions during code training)	1.5	1.5
How to build some simple, low cost antennas (three 30 minute sessions during code training)	1.5	3.0
How to use an antenna tuner	.75	3.75
SSB operation	.75	4.5
FM and repeaters	.75	5.25
VHF/UHF Multi-mode operation	.5	5.75
In depth demonstration of PSK and SSTV	1.5	7.25
Contest type operation	1.5	8.75
Introduction to Short Wave Listening	.5	9.25
Introduction to Scanner Monitoring	.5	9.75
---- ---- At this point 14.75 hours are available for T2 Theory ---- ----		
Intro to Marine Radio Operation Element 1 (Four 30 minute sessions during code practice)	2	11.75
Element 5 Radio Telegraph Operation (Six 30 minute sessions during code practice)	3	14.75
Element 6 Advanced Radio Telegraph Operation (Six 30 minute sessions)	3	17.75

Remaining time spent on testing preparation and practice tests.

## Week 1 classes

### 1-1

- Intro to class 20 minutes
  - Goals of the course
  - Arrangement of the course
  - What is expected of the students
  - Testing for the commercial license

Hand out CDs to students

- Start CW training G4FON course and materials on CD 35 minutes
- Break 15 minutes
- Code training 35 minutes

### 1-2

- Code training review and new letters 35 minutes
- Morse Code history topic TBD 15 minutes
- Code training 20 minutes
- Break 15 minutes
- Code training 15 minutes

### 1-3

- Code training review and new letters 35 minutes
- Questions and discussion: How to use G4FON software 15 minutes
- Code training 20 minutes
- Break 15 minutes
- Code training 15 minutes

## Week 2

### 2-1

- Code training review and new letters 35 minutes
- Questions and discussion 15 minutes
- Code training 20 minutes
- Break 15 minutes
- Code training 15 minutes

## 2-2

- Code training review and new letters 35 minutes
- Types of telegraph keys: Straight key, Bug, and eye/paddles 15 minutes
- Code training 20 minutes
- Break 15 minutes
- Code training 15 minutes

## 2-3

- Code training review and new letters 35 minutes
  - Questions and discussion 15 minutes
  - Code training 20 minutes
  - Break 15 minutes
  - Code training 15 minutes
- (20 letters out of 42 learned by this time)

Week 3 New class arrangement as we incorporate training material into the classes. Schedule extra classes on Fridays or weekends for those needing extra help.

## 3-1

- Code training and review 20 minutes
- Class: How to set up your station and antennas 30 minutes
- Code training 20 minutes
- Break 15 minutes
- Code training 20 minutes

## 3-2

- Code training and review 20 minutes
- Class: How to set up your station and antennas (part 2) 30 minutes
- Code training 20 minutes
- Break 15 minutes
- Code training 20 minutes

## 3-3

- Code training and review 20 minutes
- Class: How to set up your station and antennas (part 3) 30 minutes
- Code training 20 minutes

- Break 15 minutes
- Code training 20 minutes

Week 4 Schedule Friday classes and Saturday sessions for those needing extra help

4-1

- Code training and review 20 minutes
- Class: How to build some simple, low cost antennas 30 minutes
- Code training 20 minutes
- Break 15 minutes
- Code training 20 minutes

4-2

- Code training and review 20 minutes
- Class: How to build some simple, low cost antennas (part 2) 30 minutes
- Code training 20 minutes
- Break 15 minutes
- Code training 20 minutes

4-3

- Code training and review 20 minutes
  - Class: How to build some simple, low cost antennas (part 3) 30 minutes
  - Code training 20 minutes
  - Break: Information about FISTS 15 minutes
  - Code training 20 minutes
- 38 out of 42 minutes learned at this time.

Week 5

5-1 Open to make up for missed class days

5-2

- Code training and review 20 minutes
- Class: How to use an antenna tuner 45 minutes
- Break 15 minutes
- Code training 25 minutes

5-3

- Code training and review 20 minutes
- Class: SSB Operation 45 minutes
- Break 15 minutes
- Code training 25 minutes

Probably finish 42 letter training at this point

Week 6 This week concentrates on code training taking time to re-enforce student learning and deal with problems. Schedule Friday and weekend classes for those needing extra help. We also finish basic code training and start training for operation on the air.

6-1

- Code training and review 30 minutes
- Discussion: Info on code practice W1AW on radio and Internet 10 minutes
- Code training 30 minutes
- Break 15 minutes
- Code training 20 minutes

6-2

- Code training and review 30 minutes
- Discussion and questions 10 minutes
- Code training 30 minutes
  - Calling CQ
  - Answering a CQ
  - Starting a QSO
- Break 15 minutes
- Code training (continue above activities) 20 minutes

6-3

- Class: Introduction to Short Wave Listening
- Code training 40 minutes
  - Calling CQ
  - Answering a CQ
  - Starting a QSO
- Break 15 minutes
- Code training (continue above activities) 20 minutes

Week 7 Continue with teaching how to operate on the air and then 7-2 and 7-3 start preparing students for the code test.

7-1

- Code training and review 20 minutes
- Class: Introduction to Scanner Monitoring 30 minutes
- Code training 20 minutes
- Break 15 minutes
- Code training 20 minutes

7-2

- Code training and review 20 minutes
- Class: FM and Repeaters 45 minutes
- Break 15 minutes
- Practice code test Element 1: 16 groups per minute
- Practice code test Element 2: 20 words per minute

7-3

- - Code training and review
  - Practice code test Element 1: 16 groups per minute
  - Practice code test Element 2: 20 words per minute
- Class VHF/UHF Multi-mode operation 30 minutes
- Break 15 minutes
- Code training Operating on the air 30 minutes
  - Calling CQ
  - Answering a CQ
  - Starting a QSO

**\*\*End of Week 7\*\***  
Radio Field Trip during  
the weekend

Week 8 This week start code tests at faster speed: El 1: 18 wpm and El 2: 22 wpm

8-1

- Code training 20 minutes
  - Practice El 1: 18 groups per minute
  - Practice Element 2: 22 wpm
- Intro to Marine Radio Element 1 (part 1) 30 minutes
- Break 15 minutes
- Marine Radio Element 1 Part 2 20 minutes
- Information on FCCexams.com 10 minutes

## 8-2

- Intro to Marine Radio Element 1 part 3 30 minutes
- Code training 20 minutes
  - Practice El 1: 18 groups per minute
  - Practice Element 2: 22 wpm
- Break 15 minutes
- Intro to Marine Radio Element 1 part 4 30 minutes
- Homework: Give students a sample written test to take home for practice

## 8-3

- In depth demonstration of PSK and SSTV 90 minutes
- Students will have code exercise on CD to copy and work on before class 9-1

## Week 9

### 9-1

- Intro to Element 5 (part 1) 30 minutes
- Code training test preparation 20 minutes
  - Practice code test Element 1: 18 groups per minute
  - Practice code test Element 2: 22 words per minute
- Break 15 minutes
- Element 5( part 2) 30 minutes

### 9-2

- Element 5 (part 3) 30 minutes
- Code training test preparation 20 minutes
  - Practice code test Element 1: 18 groups per minute
  - Practice code test Element 2: 22 words per minute
- Break 15 minutes
- Element 5( part 4) 30 minutes

Give students Element 5 practice test to take home.

### 9-3

- Element 6 Advanced Radiotelegraph (part1) 30 minutes
- Code training test preparation 20 minutes
  - Practice code test Element 1: 18 groups per minute
  - Practice code test Element 2: 22 words per minute

- Break 15 minutes
- Element 6 Advanced Radiotelegraph (part2) 30 minutes

## Week 10

### 10-1

- Element 6 Advanced Radiotelegraph (part3) 30 minutes
- Code training test preparation: Practice words and groups at 22 wpm 15 minutes
- Break 15 minutes
- Getting ready for the test 15 minutes
- Element 6 Advanced Radiotelegraph (part 4) 30 minutes

### 10-2

- Element 6 Advanced Radiotelegraph (part 5) 30 minutes
- Code training test preparation 20 minutes
  - Practice code test Element 1: 18 groups per minute
  - Practice code test Element 2: 22 words per minute
- Break 15 minutes
- Element 6 Advanced Radiotelegraph (part 6) 30 minutes

\*\*At end of week 10: Radio  
Field Trip or operate on  
board the American  
Victory\*\*\*

Give out practice written test for Element 6 for students to take home

### 10-3 Open

## Week 11

### 11-1

- Code test preparation 30 minutes
  - Element 1: 18 groups per minute
  - Element 2: 22 words per minute
- Break 15 minutes
- Discuss answers to Element 5 and 6 tests 30 minutes
- Discuss taking the test 30 minutes

### 11-2 Practice Test Day

- Code test
  - Element 1: 18 groups per minute
  - Element 2: 22 words per minute
- Written Tests

- Element 1
- Element 5
- Element 6

### 11-3 Last day of formal class

- Sample code test groups at 16 gpm and Plain text at 20 wpm
- Practice test Element 1
- Practice test Element 5
- Practice test Element 6
- Discussion of test day arrangements
  - Location
  - Time
  - What to bring etc.