



**Standing Waves – The Great Bay Radio Association Newsletter  
May 2017**

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**Upcoming events**

The next club meeting will be held on Monday, **May 8, 2017**. The business meeting will start at 6:45pm.

**ARRL Sponsored Contests**

**May 2017**  
[No Contests Scheduled](#)

**June 2017**  
 10-12 [June VHF](#)  
 18 [Kids Day](#)  
 24-25 [Field Day](#)

**“THE PREZ SAYS”**

Hi everyone,  
 So, with Spring NEARFest over, one more winter is officially in the history books. We're now looking forward to Field Day. So far, it's looking good to have our location at the top of Garrison Hill once again. Last year, we had a great time, and we're looking forward to an even more successful event this year.

Also keep in mind that elections are coming up soon for club officers. Please consider whether you'd like to run for office, and let us know at this month's meeting.  
 73 for now,

Dee - AB1ST

## 2016-2017 Amateur License Test Schedule

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Tests are in the GBRA club room unless otherwise noted. Sessions start at 6:00 PM

Thursday, June 15, 2017

Thursday, November 16, 2017

### Local Nets

Local on-air nets are a great way to become further involved in the hobby. There are rag-chew nets, ARES nets, traffic nets and more. When getting involved in nets, if you're unsure of what to do, give them a listen for a time or two until you get used to how it goes, then get involved!

Net Name	Day(s) / Time	Freq, offset, tone
SRA Sunday Night Net	Sundays, 8:00 PM	147.000, - , 100 Hz.
Strafford County ARES	Wednesdays, 7:30 PM	147.000, - , 100 Hz.
Granite State FM Net	Every, 8:30 PM	146.940, - , 114.8 Hz.
Granite State Traffic Net	Every, 9:00 PM	146.940, - , 114.8 Hz.

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## **GBRA Meeting Minutes** **April 10, 2017**

**Called to Order:** at 6:50pm

**Roll Call:** 22 present

**Secretary's Report:** Minutes of the March meeting was read by Diane and was accepted and approved as read

**Treasurer's Report:** Report was read by George and were accepted and approved as read.

**Visitors:** Karen Lewis Rosevear

**Correspondence:** Email from Jason

**Announcements:** None

**Old Business:** (1) Discussion of appointing a club member to co-ordinate club activities, especially with the club and ARES. (2) Discussion of the public service events; Cycle the Seacoast to be held on May 7, 2017 POC Kris Kegler of Port City, The Spirit of Recovery 5K on May 21, 2017 POC Jason, and The Ride to End Alzheimer's on June 24, 2017 POC Kris Kegler of Port City which does conflict somewhat with Field Day. Discussion of Field Day, scheduled to begin on Saturday, June 24, 2017, with set up to be on Friday, June 23, 2017, location yet to be determined. Diane and George will be working to send out flyers to new HAMs in the surrounding communities. Diane will send letters to local city and town dignitaries in late May.

**New Business:** The ARRL EC001 Emergency Communication Class, if taken by a member of the club will be reimbursed by the club if and only if successfully completed.

**Meeting Adjourned:** at 7:10 with next meeting to be held on May 8, 2017

Respectfully Submitted

Diane Leveille (KC1FIC)

**SEC'S TEXT**

April showers bring May flowers. Well, I think the showers didn't realize that April was over. Don't forget: Mother's Day is on Sunday the 14<sup>th</sup>. Send your mother your best wishes and if she is no longer with you, you can still think of her.

73 - Diane (KC1FIC)

## A WORD FROM OUR TREASURER!

Just a reminder, if you haven't already done so, membership dues is still being collected for 2017.

## Technical Article

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Sigma Euro-Comm HF X-80 antenna.

If you're like me, and you really want to work HF, but don't have a lot of real-estate, an HF vertical starts looking real good. A Beam that covers everything is huge - especially one that will go down to 80 meters. And most verticals that will handle 80 are quite huge as well.

But, along comes the SE HF X-80 from Sigma Euro-Comm. This antenna claims to cover from 3.5 - 55 MHz, all in a 6-M (19.7') tall vertical.

So, what's in the box?

The base section, which includes the mounting plate, the first section of the antenna, a Hammond Engineering box containing the UNUN (Impedance matching transformer) and PL-259 connector. This section is about 46.5" tall. 5 more sections, each about 43" long are inserted into this. Each section is marked for proper insertion length.

5 clamps are included to tighten each section, as well as a rain cap for the top section, u-Bolts, and other necessary hardware.

When I first opened the box, there was a good amount of machining flake / metal dust inside, and some machining debris / burs still inside the individual tubes. This isn't a huge problem, and can be taken care of easily.

The antenna is designed to be mounted to either a structure, or a mast. The mounting plate is designed to be screwed into a structure, or mast-mounted. The kit comes with clamps that will accommodate up to about 1 3/4" masts. While my final installation will be above my Mosley tri-bander, I decided to attach it to a vent pipe on my roof to try it out.

This antenna is light – less than about 5 lbs – despite being nearly 20' tall. The individual sections are all concentric and can be assembled in-place. Each tube is held in place with a hose clamp. When I installed mine, I first mounted it to the vent-pipe, and extended each tube from there, but were I to do it again, I would assemble the individual hose clamps to the inside tubes, which would make it

easier to extend the tubes in place. While the antenna is relatively light, even a relatively light breeze could make it a bit more difficult to put in place.

For connection to the vent-pipe, I just used hose clamps. A spacer was needed because of a lip on the top section of the vent.

For connection to my rig, I used a 50' section of RG-8X.

When I first connected the antenna to my rig – an older Icom IC-735, I had this antenna and my long-wire connected to an MFJ auto-tuner that I picked up at a local ham-fest. I was a bit disappointed in that both antennas sounded nearly identical. I was a bit puzzled as well. Further diagnoses showed that the problem was actually with the tuner. When used a different tuner, things were a bit different.

Certainly this isn't an antenna that will make any sort of statement on 80 meters, despite being advertised for that band. At about 20' tall, it's not even 1/12 of a wavelength long. But, it can be tuned up. Don't expect to move more than a few KHz without re-tuning. You'll get better performance as you move up in frequency – as should be obvious.

Don't expect your radio's auto-tuner to handle this antenna in every situation. An external manual, or wide-range auto-tuner will be necessary to tune up on a few of the bands, and the manual that comes with the antenna will explain this.

So, in the end, how would I rate this antenna? Don't expect the same performance as you might from a 43' vertical, nor from any resonant antenna – it's impossible to get that sort of performance from something this short. On the other hand, this antenna does what it claims – using an external tuner, you can make your radio happy on pretty much any band from 80 to 6 meters. If you're new to HF, if you're on a limited budget, if you don't have room for a full-size antenna, if you want something that is somewhat portable – especially for 20 meters and up, this might be a good choice. Certainly, the price is right – at around \$130, including shipping.

One final note about this antenna – and the manufacturer. When I first purchased this antenna, Fed-ex lost the contents of the package. I contacted the manufacturer, and Alex was in touch with me constantly. While the company was on holiday when the package was lost, they were still in constant contact, and offered either a refund or replacement. Obviously, I took the replacement. So the overall experience, dealing with the vendor – a solid 10.

The antenna itself – does what it says – it tunes up easily with an external tuner on 80 – 6 meters. It will get you on the air – even if it doesn't compete with resonant antennas. I'd give it a solid 7 – not for performance, but for doing effectively what it claims.

Next up this month is the ARRL's Hands-On Radio Experiments – a book published by the ARRL.

If you've been wanting to learn a bit more about electronics, and want something more than a theoretical knowledge – if you've got some basic electronic equipment, including a VOM, power supply, a breadboard, and

perhaps an oscilloscope and an SWR analyzer, you'll be well-equipped to start working through this short text.

The total of 56 experiments in this book can be done with a reasonably stocked kit of parts, and a complete list is included in an appendix.

Working through each of the experiments in this text will give any amateur a solid intuitive grounding in electronics – from basic component functionality, to practical use of Smith Charts.

A list of the various chapters includes:

Fundamentals: including Kirchhoff's laws and Thevenin equivalents.

Semiconductor Basics: from diodes through SCRs and various amplifier circuits.

Building Block circuits: guides the experimenter through more commonly used circuits.

Power Supplies: Switchmode, Linear and battery chargers are covered.

Filters: Active and passive filters are experimented with.

Oscillators and buffers: some of the most important circuits in radio equipment.

Transmission lines and Impedance matching.

Workshop and Design techniques.

You'll notice if you open the text that the experiments aren't in numerical order – it's really up to the reader as to how you might wish to tackle these experiments.

But, again, if you are someone who has wanted to gain a more solid understanding of electronics – this is one title to check out.

## **ARES NOTES**

(AMATEUR RADIO EMERGENCY SERVICE)

NOTHING SUBMITTED FOR THIS MONTH

## Great Bay Radio Association Information

The **Great Bay Radio Association** is a nonprofit public service organization, with the purpose of education, service and the advancement of Amateur Radio.

General Business Meetings are held the **SECOND Monday** of each month, at 7:00 pm, in the Rochester Community Center located in Rochester, NH. *Visitors are always welcome* and membership is open to anyone having an interest in Amateur Radio, whether a licensed amateur or not.

Dues are \$ 20.00 per year [individual],  
\$ 25.00 [family] and \$ 10.00 [student].

**FOR SALE:**

### GBRA OFFICIALS

**President:** Deirdre Hebert,  
AB1ST

**Vice President:** Jeffery Zajicek  
N1XUQ

**Secretary:** Diane Leveille  
KC1FIC (aka KK6ECN)

**Treasurer :** George Whitehead  
W1BOF

**PIO:** Jason Jasper,  
K1FDP

**Webmaster:** Jason Jasper  
K1FDP

#### ARRL Appointees:

**Technical Coordinator:**  
Deirdre Hebert, AB1ST

**SEC:** Jason Jasper, K1FDP