



THE COMPASS

Official Newsletter of the Great South Bay Amateur Radio Club

October 2016

Volume 44

Issue #10

Upcoming Club Events

Next General Meeting:

**Thurs. Oct. 27th,
8 PM at the EOC**

**Suffolk County
Marathon**

Sunday Oct. 30th

**GSBARC's FREE
License Classes
Tuesday nights
7-9:30 PM.**

**Currently Running:
Technician Class**

**Open Houses on
Wednesday nights
from 7:30 to 9:30
p.m. and also
Saturdays from
noon to 3 p.m**

**Visit us on Facebook at
www.facebook.com/gsbarc**



Inside this issue of The Compass...

- **Proposed Amendments to Constitution/By-Laws to be voted on at Oct. 27, 2016 General Meeting**
- **Northport VA Harvest Festival**
- **KB6NU's Guest Column**
- **Inside the Squirrel Cage (a column)**

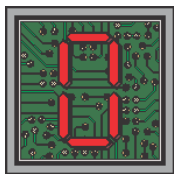
Upcoming Special Events

**Sun. Oct. 30th, Suffolk
County Marathon**

**Hope for the Warriors
Run, Saturday Nov. 12**

**GSBARC 2nd Annual
Winter Night Out
at La Famiglia in
Babylon—January 14th
at 6 p.m. \$60 per person
includes: food, wine,
beer, cappuccino and
espresso and gratuities.**

President's Message



October is here and public service is in full swing! If you take a moment to think about it, you can see why Amateur Radio is so important to our communities. Many of you have been involved in a number of events throughout Long Island and New York City. Thank you to all of you who always take the time to work the public service events. If you're new to the Amateur Radio world, a good way to learn how to help out at an event is to get involved. The Great South Bay Amateur Radio Club is -- and has always been -- about serving the community through public service. We would love to have you help out at any event anywhere. This month we have a big event on October 30th -- it's the Suffolk County Marathon, which is being handled by the Islip ARES group and they will need our help once again. Please contact John KB2SCS at kb2scs@arrl.net. Then in November right in our backyard, we once again have the Hope for the Warriors run. That will be on November 12th. We need a lot of operators for this event. If you already emailed me -- Great, you're on the list! If you did not, you are not on the list. If you would like to help out with this wonderful event for our veterans, please email and volunteer to help. We start at 6 a.m. and are done by noon at the latest. Email me at w2hcb@arrl.net.

In case you don't know about this run, the Hope for the Warriors organization is a group that helps our veterans when they come home from service. Please find time to help with this event. You'll also have fun cheering the runners on and supporting our veterans.

"There's was another special event that took place this month -- the Boy Scouts Camporee! Phil KD2GFO organized the event which took place at Cathedral Pines Park out east. The GSBARC trailer and tower trailer were

set up with two stations on the air. Several members of the club participated in the event. This was an opportunity for many Scouts to be introduced to Amateur Radio.

OK, now that I got that out of the way I am pleased to tell you that we now have a DVAP at the EOC which can be used to connect anywhere you would like while you are down there. We have also added a monitor to the computer by the Flex radio so we can log contacts as we make them. We are currently working on improving the digital interface for the digital modes. Our Open Houses are a great way to learn how to use the radios we have. Club members, I know that you can't make every meeting and Open House. I know all too well myself! Sometimes you can't help it when you get stuck at work or there is a family event. At some point you will make to a fun event. Don't stress out if you haven't been to a meeting. It's okay. This newsletter comes to you every month.

As you know, we are always trying to make improvements to our equipment. Right now, the repeater crew is working on building the new 2 meter repeater for our club. We are also working on another D-STAR repeater which will be a VHF unit that you can move anywhere you would like. I am sure that we will put out a list of how to work it once it is up and running and tested. We have also replaced the HF vertical antenna and recabled and repaired the HF dipole for your operating pleasure.

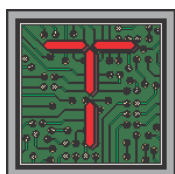
We once again will be having our Winter Night Out dinner at La Famiglia in Babylon on January 14th at 6 p.m. After the great time we had last year, I figured, "What the heck let's do it again!" The cost will be \$60.00 per person includes all the food, wine, beer, cappuccino and espresso you want. This price also includes the gratuities. I promise you we will all have a great time -- just like last year. I hope to see another large turnout. It was great time and lots of fun.

Our club has grown quite a bit from when first I started as president. Thank you to all of you who have worked alongside me as we continue to ensure the great success of the Great South Bay Amateur Club.

73. John Melfi, W2HCB 

Inside the Squirrel Cage

by Caryn, KD2GUT



here's DX.....and then there's DX Squared. That's not a new mathematical formula but it's definitely one half of a somewhat challenging equation -- because we're never sure what, or who, is going to turn up on the other side of the equal sign.

As challenges go, DX isn't impossible to solve: Given enough power, the right antenna and favorable band conditions, you get it. Slowly adding to my own tally, I put Slovenia and Austria on my personal map earlier this month with respectable but not excessive effort. Those spots are not rare but for a rookie, there's still great joy in long distance phone calls such as these.

Ah, but that's no match for the prospect of DX Squared. Neither a mathematician nor a detective can sort out that factor -- not even the fictional detective who has been experiencing DX Squared every week in "Frequency," TV's reinterpretation of the feature film about a Silent Key who reaches out from the Great Beyond through his vintage rig. In this case, the detective-daughter -- who, we must point out, has a police badge but no FCC ticket -- gives her departed dad a 5 and 9. (We'll cut the network some slack, however; the show is fortuitously carried on the CW. What could be a better tribute to Code geeks?)

This kind of DX Squared touches another dimension, beating D-STAR, JT65, WSPR or even a non-digital chat with the ISS. There isn't even a DXCC designation for wherever Big Daddy is calling in from. (On the other hand, if the show's Silent Key had been using Feld-Hell to complete his contact, we might at least have some kind of geographic clue.)

Sending and receiving QSL cards after a DX Squared contact could prove problematic, even with postal increases accounted for. But they'd be worth it. Imagine, if you will, a rag chew with Guglielmo Marconi or Nikola Tesla. Admit it: Wouldn't you like to ask Barry Goldwater what he thinks of Election Year 2016?

You may get your chance later this month and band conditions have nothing to do with it. Owners of Collins, Drake, Swan, Heathkit or other antique radios, be advised: Halloween is out there and it's calling CQ CQ CQ DX Squared..

Ham Radio University 2017 18th Annual Event- January 8, 2017 Spreading Ham Radio Knowledge and Know-How

***held at: Briarcliffe College
1055 Stewart Ave,
Bethpage, NY 11714***

HRU 2017 Highlights

- *Keynote Speaker:
Tom Gallagher NY2RF*
- *30 Forums with new forums including
National Parks on the Air, Skywarn,
MARS, Software Defined Radio, Fun
with CW & more!*
- *New York / Long Island Section
Convention*
- *3 Workshops - Cables, Ethernet & Test
Equip.*
- *Special Event Station W2HRU & demos*
- *Volunteer Exam Session starts at 1:30 pm*
- *Amateur Radio Club & Organization
Tables*
- *Door Prizes. Food and Refreshments
available*
- *Talk-in on 146.850 MHz (136.5 PL)*

Should U.S. Ham Tests Be Given Abroad?

By Dan Romanchik, KB6NU



A couple of weeks ago, I received an e-mail from a reader who wanted my opinion about a thread on the HamRadioHelpGroup mailing list. The e-mail that started the discussion was a message from an American living in Italy who wanted to take the Technician Class exam. In her e-mail, she told of her troubles finding a test session, and then when she did find one, what she perceived as “irregularities” in the testing process. Reading the thread was a little disconcerting, and I blogged about this issue (<http://www.kb6nu.com/u-s-amateur-radio-license-exams-given-outside-u-s/>).

I understand why foreign nationals go to the trouble of taking the U.S. license exam. Some of them even buy my study guides. About a year ago, for example, I swapped some e-mail with a guy from Malaysia about why he purchased my study guide and why he wanted a U.S. license. He said that it was because a neighboring country offered reciprocal operating privileges to U.S. licensees, but not Malaysian licensees! He mentioned that he tested for the license in Thailand.

Basically, my Malaysian friend was using the U.S. licensing process to circumvent the Malaysian licensing process. Australians seem to do this, too. Apparently, according to one of the VKs who commented on the thread, getting a U.S. Tech license is easier than testing for an Australian Foundation license. So, some Australians get a U.S. Tech license first, then get the Australian government to issue them a VK Foundation license based on the reciprocal operating agreement between the U.S. and Australia.

Another reason that some outside the U.S. obtain U.S. amateur radio licenses is the challenge. That’s the reason

Martin Butler, M0MRB/W9ICQ, of ICQPodcast fame, gave when I spoke to him about this recently.

Are these reasons “good enough” to continue this program of licensing non-U.S. citizens? My first reaction was that no, it’s not good enough, and I questioned whether or not the ARRL VEC should sanction non-U.S. VEs and whether or not the FCC should even allow testing outside of the United States.

I didn’t see the need for conducting these test sessions or the desirability (to the U.S.) of licensing foreign nationals. I reasoned that not only was there a greater possibility of test fraud, this program could lead to foreign authorities claiming that the U.S. was meddling in their affairs.

This post garnered a lot of comments. Several of them took me to task for voicing this opinion and were in favor keeping the current licensing program in place. There were a variety of reasons.

One of the reasons in favor of using the U.S. licensing process is that in many countries, amateur radio license exam sessions are not very frequent. Another is that they often are quite expensive. This creates an artificial barrier to getting an amateur radio license. Using the U.S. licensing system breaks through this barrier and allows many more to enjoy amateur radio.

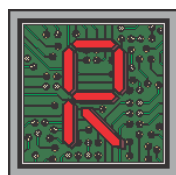
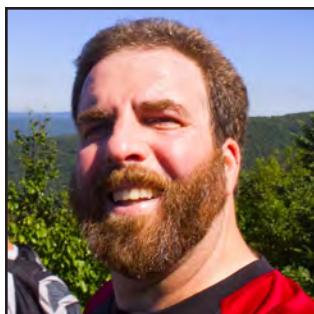
Of course, for everything to be on the up and up, the foreign authorities would have to condone the use of U.S. license tests. Apparently, this is the case in Thailand and Australia. I don’t know about Italy, but I’m guessing that the authorities there don’t really care about Italians obtaining U.S. licenses.

Perhaps the best comment came from Thida, HS1ASC/KH6ASC. He noted that the tests in Thailand were administered very strictly, and says, “The U.S. may lose some callsigns, but what the U.S. and U.S. hams get from us is goodwill, very positive feeling. Everyone who gets U.S. license is so proud, and others look at them respectfully.” Since Part 97.1(e) lists as one of the purposes of amateur radio, “Continuation and extension of the amateur’s unique ability to enhance international goodwill,” I’m now all in favor of offering U.S. ham tests abroad. 🇺🇸

Dan is the author of the “No Nonsense” amateur radio license study guides, and blogs about amateur radio at KB6NU.Com, and you can contact him by e-mailing cwgeek@kb6nu.com. When he’s not pondering the vagaries of the U.S. licensing system, you’ll find him working CW on the HF bands..

Repeaters 101

By Kevin, AB2ZI



Repeaters, specifically FM 2 meter and 70 centimeter repeaters, are often the entry point to amateur radio that most new licensees experience, especially nowadays when a dual band handy-talkie can be purchased for as little as \$25.

Repeaters allow a ham with to talk for tens, hundreds or even thousands of miles using as little as one watt of power. A repeater is a high powered transceiver located on a tower or high building with extremely low-loss feed line and a high efficiency antenna system. Many repeaters are also making use of Voice Over Internet Protocol (VOIP) technology to relay conversations over the Internet to servers that distribute these QSOs to other repeaters located anywhere on the planet with Internet access and the appropriate equipment (for more on Internet [VOIP connections to repeaters](#) check out these websites: [IRLP](#), [Echolink](#), [D-STAR Reflectors](#)).

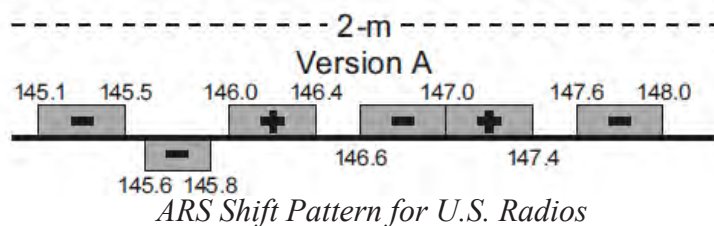
Repeaters use a pair of frequencies, usually, but not always, on the same band, to simultaneously retransmit the audio or data they receive. These are known as the repeater's Input and Output frequencies. The frequency that is given on a repeater directory or on-line listing is that repeater's output frequency. This is the frequency that you use to listen to the repeater. The repeater is meanwhile listening on its input frequency, which for repeaters with a standard offset is plus or minus 600 kilohertz on 2 meters, and plus or minus 5 megahertz on 70 centimeters. Some repeaters have non-standard "splits" but they are rare and work the same way.

Something else to be aware of are [PL or CTCSS](#) tones. PL stands for "privacy line" and CTCSS stands for Continuous Tone-Coded Squelch System. There is also DCS which is Digital-Coded Squelch and is less common—at least in

our area. It's important to understand that none of these prevents someone from listening in on your conversations. These squelch systems allow your receiver (or the repeater's receiver) to ignore transmissions that do not also have that tone transmitted along with the carrier. For example, if a group of people were all talking on the same frequency and you only wanted to listen to your friend when he talked, by using a PL tone and activating that mode on your radios, you would only hear transmissions from radios that were transmitting using that specific tone. Anyone not having that mode turned on (called Tone Squelch) would still hear all transmissions on that frequency, even those from hams using a tone. By the way, these tones are all "sub-audible" so you can't hear them but the electronics in your receiver will detect them.

In order to access a repeater several things need to be set up properly on your radio. First and most importantly, you have to be listening to the correct frequency for the repeater you want to use. I'll use the Great South Bay 2 meter repeater for our example. The GSB 2m repeater is listed as 146.685 MHz with a negative offset and a PL of 110.9 Hz. 146.685 MHz is the repeater's output frequency, the frequency you listen to. The negative offset tells you that the repeater is listening 600 kHz down (remember, the standard 2m offset is 600 kHz) which would be 146.085 MHz. For most commercial ham radio equipment (the less expensive Chinese radios excluded) there is an option called ARS, automatic repeater shift, which is normally turned on by default. Radios made for U.S. hams will recognize when a frequency is in the repeater part of the band plan and based on a standard up/down pattern automatically set the transmit frequency (note: be careful when you buy a used or new radio on-line from places like eBay. If the radio was intended for Europe, the shifts and band will be different and you'll have to enter the frequencies manually).

ARS-Repeater Subbands



When you key your radio you will see the frequency display change from 146.685 to 146.085. You also need to program the PL tone to 110.9 Hz and turn on TONE mode in order to have your radio transmit the PL tone along with your carrier. The repeater will not recognize any transmissions that don't have that tone so if you have programmed a repeater into your rig and can't bring up the repeater, you may have to check that you have the correct tone and that it's enabled. Some repeaters, and the GSB 2m machine is one of those, also have a tone on their output.

Continued on page 7...

Proposed amendments to the Great South Bay Amateur Radio Club Constitution & By-Laws

Submitted by Kevin, AB2ZI and Bob, W2YW

Change to Sec. 4 Treasurer:

Current:

Sec. 4: The Treasurer shall receive and receipt all moneys paid to the Club; he/she shall keep an accurate account of all moneys received and expended. He/she shall pay no bills without proper authorization by the Club or its Governing Board. At the monthly meeting he/she shall submit an itemized statement of disbursements and receipts. He/she shall also keep an accurate list of all dues paid members and shall permit the same to be examined by members upon request. He/she shall at the expiration of his/her term turn over everything in his/her possession, belonging to the Club, to his/her successor.

Proposed Change:

Sec. 4: The Treasurer shall receive and receipt all moneys paid to the Club; he/she shall keep an accurate account of all moneys received and expended. He/she will be responsible for preparation of an annual budget to be submitted to the president for submission to the Executive Board. He/she shall pay no bills without proper authorization by the Club or its Governing Board. At the monthly meeting he/she shall submit an itemized statement of disbursements and receipts. He/she shall also keep an accurate list of all dues paid members and shall permit the same to be examined by members upon request. He/she shall at the expiration of his/her term turn over everything in his/her possession, belonging to the Club, to his/her successor.

Change to Budget/Fiscal Year: Article IV:

Current:

BUDGET/FISCAL YEAR: ARTICLE IV

THE PRESIDENT SHALL SUBMIT A BUDGET TO THE EXECUTIVE BOARD AT THE MAY EXECUTIVE BOARD MEETING. UPON APPROVAL OF THE EXECUTIVE BOARD THE BUDGET WILL BE PUBLISHED AND MAILED TO THE MEMBERSHIP AND VOTED UPON BY THE MEMBERSHIP AT THE MAY GENERAL MEETING, OR AS SOON AFTER AS POSSIBLE. THE FISCAL YEAR OF THIS ORGANIZATION SHALL START JULY 1ST AND END JUNE 30TH.

PROPOSED CHANGE:

BUDGET/FISCAL YEAR: ARTICLE IV

THE PRESIDENT SHALL SUBMIT AN ANNUAL BUDGET, FOR THE SUBSEQUENT YEAR ENDING DECEMBER 31, PREPARED IN ADVANCE BY THE TREASURER, TO THE EXECUTIVE BOARD AT THE DECEMBER EXECUTIVE BOARD MEETING. UPON APPROVAL OF THE EXECUTIVE BOARD THE BUDGET WILL BE PUBLISHED ON THE CLUB YAHOO GROUPS FOR REVIEW BY THE MEMBERSHIP AND VOTED UPON BY THE MEMBERSHIP AT THE DECEMBER GENERAL MEETING, OR AS SOON AFTER AS POSSIBLE. THE FISCAL YEAR OF THIS ORGANIZATION SHALL START JANUARY 1ST AND END DECEMBER 31ST.

AMEND BY-LAWS HEADER TO INCLUDE AMENDMENT DATES:

CURRENT:

ADOPTED: APRIL 1985

AMENDED: NOVEMBER 1987, JANUARY 1988, JANUARY 2002, OCTOBER 2006, AUGUST 2007, AUGUST 2009, MARCH 2010, DECEMBER 2011

PROPOSED CHANGE:

ADOPTED: APRIL 1985

AMENDED: NOVEMBER 1987, JANUARY 1988, JANUARY 2002, OCTOBER 2006, AUGUST 2007, AUGUST 2009, MARCH 2010, DECEMBER 2011, FEBRUARY 2015, APRIL 2016

FORMATTING CHANGE TO ARTICLE (C) FAMILY MEMBERSHIP (TO SMALL CAPS FONT FOR CONSISTENCY):

CURRENT:

(C) FAMILY MEMBERSHIP IS OPEN TO ANY LICENSED INDIVIDUAL WHO HAS A MEMBER OF THEIR IMMEDIATE FAMILY (FATHER, MOTHER, SON, DAUGHTER, OR SPOUSE) WHO IS A FULL MEMBER. FAMILY MEMBERS HAVE ALL OF THE SAME PRIVILEGES AS AN ASSOCIATE MEMBER EXCEPT FOR THE RIGHT TO HOLD OFFICE AND WITH NO VOTING PRIVILEGES. FAMILY MEMBERS WILL NOT BE PLACED ON THE MAILING LIST OF THE CLUB NEWSLETTER.

PROPOSED CHANGE:

(C) FAMILY MEMBERSHIP IS OPEN TO ANY LICENSED INDIVIDUAL WHO HAS A MEMBER OF THEIR IMMEDIATE FAMILY (FATHER, MOTHER, SON, DAUGHTER, OR SPOUSE) WHO IS A FULL MEMBER. FAMILY MEMBERS HAVE ALL OF THE SAME PRIVILEGES AS AN ASSOCIATE MEMBER EXCEPT FOR THE RIGHT TO HOLD OFFICE AND WITH NO VOTING PRIVILEGES. FAMILY MEMBERS WILL NOT BE PLACED ON THE MAILING LIST OF THE CLUB NEWSLETTER.

In the Classroom... cont'd from page 5

That means you can turn on tone squelch on your receiver and not have to use the manual squelch knob to set the noise threshold.

Another thing to be aware of when using repeaters is that there is a short delay between the time you key your radio and the time the repeater starts to transmit. To be a good operator and ensure that the beginning of your transmissions aren't cut off, when you key your microphone wait at least a half second before starting to speak. This will ensure your audio is making it through. When you finish talking you will notice that the repeater's signal doesn't immediately end. This is the repeater's "tail" and lasts for different amounts of time on different repeaters. When the repeater stops transmitting, or "drops," you will hear a brief burst of noise, that is known as the repeater's "squelch tail" and it lets you know that the repeater is reset. When trying to make yourself known or break into a QSO, wait until you hear the talking station finishes and key up your mic and say your call sign in the break between the end of talking and before the squelch tail.

The most important thing if you're a new ham is to listen a while before jumping in. By listening to how others use the system you'll get the hang of it pretty quick and soon be on the air with the rest of us.

73 and see you in class. 📶



MATHNASIUM
The Math Learning Center
We Make Math Make Sense.

Call Now to Schedule a **FREE Trial**

Get **A+** head with Mathnasium
Back to School

Convenient and Affordable with

- Personalized Learning Plans-
- Expert Math Instructors-
- ACT and Sat Test Prep-
- Proven Results-

YOUR CHILD COULD BECOME CRAZY ABOUT MATH

Mathnasium of Smithtown
140A E. Main Street
Smithtown NY 11787
(631) 257-5386
www.mathnasium.com/smithtown

2 Locations:

Mathnasium of Smithtown

140 E. Main Street, Smithtown, NY 11787

(631) 257-5386

and

Mathnasium of Lake Grove

2795 Middle Country Rd., Lake Grove NY 11755

(631) 619-6949

Northport VA Center Harvest Festival



Frank, K2LI, being K2LI!



(L-R) Frank, K2LI with event organizer Tracy Enright and John, K2IZ

YAHOO!

GSBARC has a New Yahoo Group and the old one has been deleted

If you are a member in good standing and want to join the club's new Yahoo group, go to:

<https://groups.yahoo.com/neo/groups/gsb-arc/info>

and click on "Join Group" Be sure to add a note when filling out your information with your call sign so we know who you are!

Club Apparel

Want a shirt, jacket, hat, sweatshirt or t-shirt with a Great South Bay club logo? We now use *Mr. Shirt*, located at 80 East Montauk Hwy in Lindenhurst (www.mrshirt.com). Now you can get color matched backgrounds on your logo too. Check them out...

ARES/RACES Information

- Div. 1—Town of Babylon ARES/RACES
Net: 146.685/R, Mondays 8:15 PM
EC/RO: John Melfi, W2HCB, (631) 669-6321
- Div. 2—Town of Huntington ARES/RACES
Net: 147.210 MHz +600/ PL 136.5,
Mondays 7:00 PM
EC/RO Steven W. Hines, N2PQJ, (###) ###-####
- Div. 3—Town of Islip ARES/RACES
EC/RO: John J Blowsky, KB2SCS, 631-467-2410
- Div. 4—Town of Smithtown ARES/RACES
Net: 145.430 MHz, PL136.5, Mondays 7:30 PM
EC/RO: Joe Albertus, KB2IOE, 631-664-6709
- Div. 5—Town of Brookhaven ARES/RACES
EC/RO: Ted Debowy, AC2IR, 631-751-6576
- Div. 6—Riverhead ARES/RACES
EC/RO: < Unknown — no longer in state. >
- Div. 7—Southampton ARES/RACES
EC/RO: Dennis O'Rourke, KB2ZWW, 631-728-5424
- Div. 8—Southold ARES/RACES
EC: Don Fisher, N2QHV, 631-765-2757
RO: Charles Burnham, K2GLP, 516-779-4983
- Div. 9—East Hampton ARES/RACES
EC/RO: Nat Raynor, N2NEI, 631-324-3738
- Div. 10—Shelter Island ARES/RACES
EC/RO: Neal Raymond, N2QZA, 631-749-9330

Suffolk County

ARES/RACES Net:

Mondays 2100 Local - 145.330/R (136.5 PL)
Alternate Frequency - 145.370 (136.5 PL)

New York State RACES Net (HF)

Sundays 0900 Local, 3993.5 KHz LSB

2016 VE

Session Dates

- October 22nd
- November 26th
- December 17th

All sessions are at the Town of Babylon EOC at 10 a.m., located in the basement in the rear of town hall. Please bring photo ID, a copy and your original amateur radio license (if you have one), and any CSCE's you may have. Non programmable calculators are allowed. The exam fee is \$15 payable by cash or a check made out to "ARRL VEC".

Visit [FCC Universal Licensing System site](http://www.fcc.gov) to register for an FRN number to use on the paperwork.

GSBARC

Free License Class Schedule:

**Technician: Sept. 6th
thru Nov. 15th**

**General: Nov. 22nd thru
Jan. 31, 2017**

**Amateur Extra: Feb. 7th
thru May 23rd.**

Note: All Classes Tuesday evenings from 7 to 9:30 PM. Class text book is the current ARRL License Manual for that level. For more info email Kevin, AB2ZI at kmorgan6@optonline.net

Club Name Badges

Club name badges are available from *The Sign Man* (www.thesignman.com) of Baton Rouge, LA.

The badges which are 1-3/4 in. x 3 in. If you visit The Sign Man's webpage you can order the badges by using a drop down selection on the orders page and clicking on "Great South Bay ARC - NY"



All Flag & Flagpoles

FLAGS • BANNERS • FLAGPOLES & REPAIRS
SPECIALIZING IN CUSTOM FLAGS AND BANNERS

97 Gnarled Hollow Road, East Setauket, NY 11733
Tel: 631-751-5500 Outside NY: 800-247-8331
Fax: 631-751-5505

Website: www.all-flags.com • E-Mail: info@all-flags.com

2017 Annual GSBARC Field Day Raffle is here!

Prizes for 2017 are:

1st Prize:

ICOM ID-5100

VHF/UHF Transceiver

2nd Prize:

**UHF Digital Voice Access
Point (DVAP)**

3rd Prize:

**BTECH/Baofeng UV5X3
Tri-Band HT**

**Tickets are \$5 each or a
book of 5 for \$20**

Winner Need Not be Present to Win.