



HARMONICS

1916

South Jersey Radio Association

2013



HAM TECH

Vol 4 No. 9 by John - WY2J

wy2j at arrl dot net

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Vol. 1 No.1 to Vol. 4 No. 12

Introduction - I started HAM TECH three years ago this month in September 2010 and have produced 36 issues on a number of technical topics ranging from one to four parts each. A preliminary Table of Contents was included in the first issue covering the first 12 months however I never updated the table that appeared in the initial issue. I selected a new topic about three months before it was due to the Harmonics editor, determined the number of parts required for it, located or produced my graphics and started writing 2 weeks before the due date and e-mailed my final manuscript to the Editor one week before the due date. My actual preparation and writing time is about 16 hours per issue but this month I am going to write that Table of Contents for the first three years and publish it in the September 2013 issue of Harmonics. I need it for my own use and you might like it if you keep your old copies of Harmonics and want to locate a specific topic. The write time will be only four hours this month but I am on vacation in Ocean City this month and have other things to do. The table includes the topic for the next three months, Non-linear Distortion in Receivers. After that you tell me what you would like to see in HAM

TECH. Drop me an E-mail at wy2j at arrl dot net with a topic or just to let me know that you read the stuff that I write. After all, if no one reads HAM TECH, I might just as well save myself two days each month by not writing it.

Vol/No.	Date	Title
1/1	9/2010	Introduction to HAM TECH
1 / 2	10/2010	LOS Propagation and Loss
1 / 3	11/2010	LOS Applications
1 / 4	12/2010	Troposphere Prop, and Loss
2 / 1	01/2011	Tropo Link Analysis
2 / 2	02/2011	HF Prop. and Antennas
2 / 3	03/2011	W6ELPROP Software
2 / 4	04/2011	HF Propagation Examples
2 / 5	05/2011	HF Antennas: H vs V Pol.
2 / 6	06/2011	HF Antenna Examples
2 / 7	07/2011	WY2J Vacation Station
2 / 8	08/2011	QRP Modes and Antennas

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SOUTH JERSEY RADIO ASSOCIATION

HARMONICS is published monthly and is the official news letter of the South Jersey Radio Association. The SJRA was established on June 16, 1916 and has been meeting continuously since its inception. The club has been affiliated with the American Radio Relay League since 1920.

The SJRA meets each month on the fourth Wednesday, January through September; and usually the third Wednesday, October, November and December; in one of the Meeting Room of the Gibson House at 525 East Main Street, Marlton, NJ 08053. Visitors are always welcome at our general meetings. **“Our Meetings are Smoke Free”**

SJRA operates the K2AA Repeater (145.290 - PL 91.5) located in Medford, NJ and the K2UK Repeaters (146.865 and 442.350 - PL 131.8) located in Pine Hill, NJ. The repeaters are open for use without restriction to all licensed amateur operators.

There are currently over 100 SJRA members active in most all aspects of amateur radio. Membership is by application and is subject to the approval of the Board of Directors. Club dues are currently \$30/yr. for memberships, \$22.50/yr for retired-person membership (62 plus 1 yr membership), and \$15/yr. for additional family members and student membership. Membership information is available on the K2AA Repeater or from Mary Von Lintig, KV2M, 856-772-6475

EMAIL: [sjra at sjra dot org](mailto:sjra@sjra.org) SJRA's web page www.sjra.org
 Mark O'Brien, K2AX, is the SJRA/ARRL VUCC card checker
 Joe Fisher, KC2TN, is the SJRA/ARRL WAS card checker

 ★ **Harmonics** is now available on the WEB in pdf format at: ★
 ★ <http://www.sjra.org> ★
 ★ **South Jersey ARRL Section News** is available on the WEB at: ★
 ★ <http://www.arrl.org/sections/?sect=SNJ> ★

Officers

President: Ken Botterbrodt, K2WB
Vice Pres.: Jon Mac Millan, W2MC
Treasurer: Ray Golley, N3RG
Rec. Sec: Lou Priestley, N2HQL
Cor. Sec: Dennis Cioffi, AC2FO

Directors:

Kathy Edwards, KM2KME
 Rich VonLintig, KV2R
 Debbie Pullaro, W9QWN
 Ira Weinstein, W2IRA
 Mary VonLintig, KV2M
 Jim Vecchiola, KR2T
 Al Witner, N3AVT

Committees:

Historian: Mary VonLintig, KV2M
Membership: Mary VonLintig, KV2M
Field Day: Ken Botterbrodt, K2WB
Contests: Jon Mac Millan, W2MC
Repeater: Joe Fisher, KC2TN
Programs: Kathy Edwards, KM2KME
H&W: Kathy Edwards, KM2KME
Awards: Lou Priestley, N2HQL
Hospitality: Jean Priestley, KA2YKN
Nets: John Fogleboch, WY2J
Publicity: Debbie Pullaro, W9QWN
Picnic: Debbie Pullaro, W9QWN
Ways & Means: Ray Golley, N3RG
Property: Jon Mac Millan, W2MC

Harmonics Staff:

Publisher/Editor: Ted Groke, W2TAG
 or Don Beaulieu, WA2DUE
Circulation: Mary VonLintig, KV2M;
 Jim Vecchiola, KR2T

LOCAL WEEKLY NETS

Monday	K2AA, Medford	145.290 @ 8PM
Thursday	Various Locations	28.405 @ 8PM

Harmonics Deadline

Articles submitted for the next HARMONICS will be accepted until Monday, October 7, 2013. Email: [ted.w2tag at gmail dot com](mailto:ted.w2tag@gmail.com)

SWAP SHOP - For Sale/Wanted ads are free of charge and are accepted for Amateur Radio related items only. While ads are not restricted to SJRA members, there is only limited space available and members have priority for listings. No items will be accepted for inclusion in the Swap Shop from commercial vendors or traders. All ads must be submitted at least three weeks prior to the scheduled SJRA general meeting date.

GENERAL ADVERTISING - Limited commercial advertising is accepted on a space available basis. Annual advertising rates range from \$25/yr (Min 1/8 page) to \$200/yr (Full Page). Information is available from Ken Botterbrodt, K2WB.

Meeting Minutes

Minutes of General Meeting of 28 August 2013

The meeting was opened at 1933 by President Ken, K2WB, with a flag salute. All those present introduced themselves. As usual, the minutes of the July meeting were approved as printed in Harmonics. Motion- N2HQL/KD2ADL.

Treasurer's report "We have money" 118 paid up members. Accepted on a motion by W2WJL/KR2T. Ken noted we received a donation of \$1000 from the estate of E. Miles Brown, W2PAU.

Members by Mary, KV2M: Dom, KD2EPM; "Just Linda;" Alan Koch KD2ELE; and Cameron Koch, KD2ELF.

No Health and Welfare. Programs: Aug.- Weak signal reception by Ray, N3RG, and Joe, KC2TN; Sept.- member Auction; Oct.- Homebrew; Nov.- open; Dec.- Christmas Party/Awards.

VE Testing: Al, N3AVT, reports that the activity is doing well and that numbers of tests given are increasing.

DX by Jack N2VW reports: 3B8- Mauritarius 18-28 Sept. QSL to 3B8/G0TSM: D4 Cape Verde Is. 27 Aug- 11 Sept.; D4/M0DGQ; HC8 Galapagos Is. now thru 30 Sept. QSL HC8/G8OFQ H4 Temuto Thru Sept. 6 via H44RK; JY- Jordan JY9FC; CQ phone is last weekend of Oct.; YJ Vanuatu 1-11 Nov. YJ0ZS; DARC German Contest 14-15 Sept., All DX from Europe. Message from Jack, N2VW, I've been asked for some good sources of DX Info. Here are two weekly sources for up-to-date DX info. As all Hams love - They are Free!

Ohio/Penn DX Bulletin: Send message to < imailsrv@njdx.org > In body of message put "subscribe dx-news" (*do not include the quotation marks*). This will bring you the Ohio/Penn DX Bulletin and the 425 DX NEWS from the NJDXA, <http://njdx.org>. Enjoy.

Repeaters- No complaints: Club Stuff: Joe, KC2TN, still taking orders. Web: Thanks to team. Property: Stuff is still there. Awards: See attached. Field Day: Ken presented some certificates from 2012.

Contests: VHF 14-16 Sept.; Nov SS. Club will supply sweep awards.

Minutes of Board Meeting of September 4, 2013

The meeting opened at 1920. Minutes approved as printed in Harmonics, N2HQL/W2MC.

No treasurer report. New members, by Mary, KV2M: William Bowen, KD2DOP. Historian- a copy of a 1909 issue of the wireless association newsletter- all members are commercial stations. Ken showed a picture of the Roger Barrington QSL. He reported difficulties reaching QSL manager Ken, N3MUA. Awards- - to be added to Harmonics.

Property: Jon, W2MC, needs a key for the trailer. Repeater: .29 is working.

Contests as given in General Meeting Minutes.

Club Stuff: Need seed money for new hat order. VE Testing: Last session- 7 tested, 6 passed, 11 total elements given.

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Vol/No.	Date	Title
2 / 9	09/2011	Z Matching w/ Trans. Lines
2 / 10	10/2011	L Network Antenna Tuner
2 / 11	11/2011	T Network. Antenna Tuner
2 / 12	12/2011	Baluns for Antenna Tuners
3 / 1	01/2012	HF Amplifiers
3 / 2	02/2012	Vacuum Tube Amplifiers
3 / 3	03/2012	Solid State Amplifiers
3 / 4	04/2012	HF Propagation Physics
3 / 5	05/2012	Propagation Tools
3 / 6	06/2012	Modulation - Morse Keying
3 / 7	07/2012	Mod. - AM, DSB, SSB
3 / 8	08/2012	Angular Mod. aka FM and PM
3 / 9	09/2012	Digital Mod. - RTTY, PSK
3 / 10	10/2012	Selectivity and Rcvr Filters
3 / 11	11/2012	Superhet. and LC Filters
3 / 12	12/2012	Early Crystal Filters
4 / 1	01/2013	Modern Crystal Filter and SW
4 / 2	02/2013	Oscillators - LC and Crystal

Vol/No.	Date	Title
4 / 3	03/2012	Digital PLO Synthesizers
4 / 4	04/2012	Direct Digital Synth. - DDS
4 / 5	05/2013	Multi-Band Wire Antennas
4 / 6	06/2013	Tuned EDZ and OCF Ant.
4 / 7	07/2013	Trap Dipole Antennas
4 / 8	08/2013	Coupled Resonator Ant.
4 / 9	09/2013	Table of Contents for Vol. 1 No. 1 to Vol. 4 No. 9
4 / 10	10/2013	Receiver Distortion Intro.
4 / 11	11/2013	Intermods and Intercept Point
4 / 12	12/2013	Roofing Fltrs & Gain Dist.

You may wonder what happened to Volume 1 Numbers 5 to 12. At the beginning of 2011 I changed the numbering system to align the number within a volume with the number of the month. Number 1 equals January, Number 2 equals February and etc.

If you have tossed out your Harmonics or lost a specific issue I can supply a copy of any HAM TECH manuscript via E-mail. It will be in Word 97-2003 including the graphics. Just keep requests to small quantities of issues.

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South Jersey Radio Association Continues to Leap into the 21st Century and To- ward Her Big 100th Birthday – Part 10.

2004

We are now 88 years young. 88 – a very nice number for amateur radio. As we continue toward that magic 100, our club stays strong and can handle whatever comes its way.

To start off our 88th year, our leaders were:

President – Pat Doyle, KD2P

Vice President – Jon MacMillan, W2MC

Treasurer – Lou Priestley, N2HQL

Recording Secretary – Rick Stoneking,
W2RDS

Corresponding Secretary – Ted Groke,
W2TAG

Directors

Carol Hutkin, K2BL

Stan Glazewski, KC2HDR

Jim Vecchiola, KR2T

Ed Cienki, N2EAC

Ken Botterbrodt, K2WB

Shawn MacDonald, K2SMD

Scott Townell, K2SCO

This year saw three generations of hams plus an uncle as members of SJRA.

John A. McCaughrean, KC2MKW, kid

John D. McCaughrean, KC2LYX, father

John E. McCaughrean, KC2KQV,
grandfather

Trevor, KC2KQU (thought I was going
to write John), uncle

I hope that I got this right and if I got anything wrong, please let me know and accept my apologies.

During January membership was 120.

41,616 points for K2AA during the
January VHF Contest

37,312 points for W2EA during the
January VHF Contest

A Fox Hunt took place in April. Jerry, KC2JJT, was the fox. Jon, W2MC, won and will be the next fox, followed by Shawn, K2SMD, and then Rick, W2RDS, assisted by his son. We certainly do have Foxy people in SJRA.

The second half of 2004 saw the following 'commanding officers and their crew':

President – Jon MacMillan, W2MC

Vice President – Shawn MacDonald,
K2SMD

Treasurer – Lou Priestley, N2HQL

Recording Secretary – Rick Stoneking,
W2RDS

Corresponding Secretary – Ted Groke,
W2TAG

Directors

Ken Botterbrodt, K2WB

Scott Townell, K2SOC

Jim Vecchiola, KR2T

Stan Glazewski, KC2HDR

Ed Cienki, N2EAC

Ruben Kafenbaum, WA2NBL

Jack Imhof, N2VW

The Field Day site this year was at Savage Field. K2AA captured third place in the 6A category and 13th place overall with 13,852 points. The Cherry Hill 'Command Post' bus housed two of our stations. The words of our Field Day Chairman said it all, "We set up, we operated, we had fun, and no one got hurt."

Tom, W2XQ, wrote a series of interesting articles 'On the Web' for Harmonics.

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(SJRA Leaps from page 5)

Jim, KR2T, and Carol, K2BL, were leading projects to expand emergency communications tools available to radio amateurs in Camden County.

Stan, KC2HDR, contacted stations in Europe, Africa, the Caribbean, and Greenland on 6 meters during a band opening on 5 July.

At this time, our Club was looking for a new Historian. Well, they got one - Me, KV2M. I am not quite sure how this happened but I said 'Yes' and here I am nearly a decade later. I think that I may have been 'under the influence' during that 'Yes' moment.

On 13 July an F1 tornado cut a path through parts of Burlington County.

Lightening creamed Ken's, K2WB, VHF antenna on top of his tower and also hit his computer and some of his telephone answering equipment. Bad Weather!

The ARRL celebrated Hiram Percy Maxium's 135th birthday. He was one of the founders of ARRL and its first president. His personal call was W1AW. Many ARRL members were using /135 after their call. I am looking forward to that /100 after our K2AA call.

Anthony Dianora, KC2HHX, was approved for membership. He is the son of Mario, N2AK.

SJRA's oldest member Ken Hollister, WB2DQZ, became a Silent Key at age 97.

Don, W2DUE, continues to try to stump the SJRAers with his monthly Brain Teasers. I found out recently that he actually makes them up himself. He is not a copycat. Thanks Don. Keep them coming.

We are moving - leaping - toward that magic 100 mark. A full century of amateur

radio will happen in the year 2016. I am so proud to be a part of it. Thank you past and present members of SJRA.

73, 88 and I am History, Mary, KV2M

Not a State Possessions - Part 2 Navassa Island

Navassa Island is one of nine Possessions belonging to the United States and is currently administered through the United States Fish and Wildlife Service. It is a small uninhabited island in the Caribbean Sea between Haiti and Jamaica about 100 miles south of Guantanamo Bay, Cuba. This tiny island is about two square miles, barely bigger than New York City's Central Park. Navassa Island is surrounded on all sides by limestone cliffs ranging from 10 feet to 150 feet above sea level. There are no ports or harbors, making access to the island most difficult. The island's only natural resource is guano (bird poop). It is covered in forest of just four tree species.

In 1504 Christopher Columbus was stranded on Jamaica and sent some of his crew members via canoe to Hispaniola to get help. They ran into the island on the way and called it Navaza from 'Nava' meaning plain of field. For the next 350 years the island was avoided. Although an earlier claim was made by Haiti, Navassa Island was claimed for the United States on 19 September 1857 under the Guano Islands Act of 18 August 1856. President Buchanan issued an Executive Order upholding the US claim, which also called for military action to enforce it.

Navassa Island became important with the opening of the Panama Canal in 1914.

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(Navassa Island from page 6)

Ships traveling between the US eastern seaboard and the Canal go through the Windward Passage between Cuba and Haiti. The island was a real hazard to navigation. The US built Navassa Island Light, a 162 foot tower in 1917 - 395 feet above sea level. An automatic beacon was installed in 1929. Effective 1939 the US Coast Guard serviced the light house two times each year. The light house was dismantled on 29 August 1996. During WWII the US Navy set up an observation post. After the war ended the island was uninhabited.

After the end of WWII amateur radio operators occasionally visited the island that is accorded "entity" (country) status by the ARRL. During November 1974 six of our very own SJRAers made a DXpedition to Navassa Island. During 1974 the islands were under the jurisdiction of the US Coast Guard and the call used KC4NI was obtained from the FCC and permission granted by the US Coast Guard. Those special six consisted of - Bill Gallick, K2FT; Sy Adler, K2KA; E. Miles Brown (Brownie), W2PAU; Amor Klotzbach, W2FYS; Joe Duffin; and Frank (Son of Sy) WB2BXV. From pictures I have seen of Navassa Island, those six must have been part amphibian since that island is surrounded by a fortress of limestone. Nearly forty years have passed since our special six transmitted from that barren rocky island but the legacy still lives on today.

South Jersey Radio Association can proudly boast - Been there. Done that.

73 from the State of New Jersey, the QTH of SJRA, the oldest continually operating amateur radio club in the United States and the best.

Mary, KV2M

Monthly Puzzle

Don - WA2DUE, *wa2due at arrl dot net*

For August the Monthly Puzzles were:

A disk with a radius of $3/\pi$ inches rotates a $1/2$ inch per second. Determine how many revolutions per minute (RPM) it rotates? Solution: $1/2$ inches per second is equivalent to 30 inches per minute. The circumference is equal to π times the diameter. Since the radius is given as $3/\pi$ then the diameter is $6/\pi$ inches and the RPM is therefore $30/6$ or 5 revolutions per minute.

If $-x/2 + 0.6(x + 5) = 4.4$ what is the value of x ? Solution: First multiply all terms of the equation by 2 to eliminate the denominator and we get $-x + 1.2(x + 5) = 8.8$. Next simplify the middle term and we get $-x + 1.2x + 6 = 8.8$. And thirdly we combine like terms and get $0.2x = 2.8$. For the answer we divide both sides of the equation by 0.2 and get $x = 14$.

No solutions were received this month. Could it be that these puzzles were too simple to bother with?

For September let us try these puzzles:

A regular polygon is defined as a shape in which all sides are of equal length. What is the angle between any two adjacent sides of a regular hexagon, Pentagon, or Octagon?

A large national forest is triangular in shape. The height of this triangle is 15 miles longer than its base and the area is 125 square miles. Find the height and base of this triangle.

Please submit solutions and/or comments to *wa2due at arrl dot net*.

Meeting Minutes from page 3)

Web: will have a nominate button, looking for new hosting service.

Ken, K2WB, and Ray Schnapp, WA2NBJ, signed the agreements regarding the new repeater system.

N3AVT/W2MC made a motion to donate \$50.00 to the ARCC. We welcomed the new members from the CCAPR group.

Old Business- JOTA still looking for help 19-20 Oct.

Adjourned At 2030.

Lou, N2HQL, Recording Sec.

Club Awards

Yes, it's that time of the year again, time for awards nominations; we have the following club member nominated awards: AMATEUR OF THE YEAR- This award is given to a member who has demonstrated service to the club, or to Amateur radio in general within the recent past- There is no definite calendar period for this award. The nominee must be a member for at least one year (again, no one will check the calendar if it is slightly less than a year).

Gordon Kressel award: This award is given to someone who has provided service to the club, or Amateur radio in general, over a "long term" There is no spectacular Action needed, just a record of continuous service- we have given the award for many reasons, some that appear as minor, but continuous over many years. The only requirement for this award is that the nominee has a minimum of five years membership in the club. This is a once in a lifetime award, so anyone on the Gordon Kressel list is not eligible.

To nominate: Simply write a note with the name, and the reason for the nomination, either award . Your options are many-

you can go to the web page, and hit the "nominate" button. Fill in the form & send. You can also send an e-mail to either Awards@sjra.org or N2HQL@comcast.net . Both should forward to me. Your last resort is snail mail at my home address- from the callbooks. I will accept sealed envelopes at the September or October (maybe November) meetings. The deadline is Thanksgiving day, at which time any nominations will be presented to the committee.

Other awards; the E. Miles Brown technical achievement award is presented by the board of directors for exceptional technical achievement. While this is given by the board, suggestions can be made to any board member prior to November meeting, since we might not know of these achievements. Thanks for participating.

Lou, N2HQL, Chairman

**List Your "For Sale"
Ham Stuff in the SJRA
Harmonics**

Email Ted, W2TAG, with your listing, ted.w2tag at gmail dot com

FOR SALE:

Hy-gain, TH6DXX antenna. Six element tribander on a 24 foot boom. All stainless steel hardware. Also includes unopened plastic kit with all new trap caps, driven element insulators, element end caps, beta match insulators, etc (\$60 from Hy-gain) - \$250. Antenna is on the ground. Contact Tom, N2SR, at:

tom_n2sr at yahoo dot com

President's Message

Ken – K2WB

Fall will be here soon Autumnal Equinox is September 22nd. If you look carefully the signs are already showing, with a little yellow or red is starting to appear from the green of summer. This is the best time to spruce up the antenna farm and get ready for the fall radio contest and DX season.

Get help with any big projects there are many members with knowledge and experience that will help make your project safe and successful.

At the last board meeting the paper work joining the SJRA and CCAPR was signed. Leaving the SJRA managing two repeaters. Welcome new members Ray, WB2NBJ, Rob, KB2COB, and Ron, N2WYZ, and I want to thank them for their help and generosity.

If you participated in the ARRL September VHF Contest, send your log to the league noting the SJRA as your affiliation. This is a club competition; VHF contesting is easy to do and does not require special equipment. Most members are located in grid squares FM29 or FN20

The SJRA is looking for your help. Kathy and Mary would like to step down in their respective committees after many years of great service to the club. Which means that we are looking for a Program chairman and Club Historian. You do not need to be on the board to serve on a committee. Contact me if you are interested in helping the club and make a difference.

As always the SJRA is looking for more members, bring a friend to a meeting. With some luck, they may even join and become an SJRA member.

The SJRA would like to congratulate the following on their recent ham radio licensing accomplishments.

Session date: 08/14/2013

Charles Wilkins, KD2EHD
404 Bradford Rd.

Cherry Hill, NJ 08034
Earned his Extra License

Tom Matznick, N2DMK
488 Hartford Rd.

Mt Laurel, NJ 08054
Earned his Extra License

John Meeser (call issued: KD2EPL)
135 Roosevelt Ave.

Mt Ephraim, NJ 08059
Earned his Tech License

Mike Levy (call issued: KD2EPN)
5 Red Oak Dr.

Voorhees, NJ 08043
Earned his Tech License

William C. Bowen, K2DOP
1209 Wayne Rd.

Haddonfield, NJ 08033
Earned his General License

Dominic Sacca (call issued: KD2EPM)
115 Hailey Dr

Marleton, NJ 08053
Earned his General License

The Year to Date New license or upgrade totals are:

	Tech	General	Extra
YTD	24	5	3



(Ham Tech from page 4)

(SJRA members can also read all of John's, WY2J, Ham Tech articles on the SJRA web site, i.e., www.sjra.org. Your editor, Ted, W2TAG)

See you next month with a new technical topic that is important in selecting any HF receiver: Introduction to Non-Linear Distortion in HF Receivers, a three part article that includes the impact of roofing filters. By its nature some math will be required so brush up on your dB addition.

21 Things to Do After You Get Your Amateur Radio License



Dan Romanchik, KB6NU

21 Things To Do After You Get Your Ham Radio License

Dan, KB6NU, *cwgeek at kb6nu dot com*

21 Things to Do After You Get Your Amateur Radio License is now available for the Kindle (Amazon) and Nook (Barnes&Noble). Written for the new ham—or the ham that hasn't really been all that active lately—its 21 chapters include:

- Join a club
- Join the ARRL
- Find an Elmer
- Buy a radio
- Get on the air
- Set up a shack
- Buy some tools
- Buy a digital multimeter (DMM)
- Build an antenna
- Build a kit
- Go to a hamfest
- Learn the lingo
- Subscribe to mailing lists, blogs, and podcasts
- Upgrade to General
- Go to Field Day
- Learn Morse Code
- Get to know your (ham) neighbors
- Buy QSL cards
- Join SkyWarn, ARES, or RACES
- Participate in a contest
- HAVE FUN!

SJRA Jackets, Shirts, Hats

Order NOW - Next order going in soon!



Spring Jacket is \$44 (S,M,L,XL), Fall Jacket is \$55 (S,M,L,XL),
Shirts are \$27 (S,M,L,XL), Hats are \$25 (one size fits all)
Name and Call Sign embroidery included....Larger sizes slightly more!
Email Joe, KC2TN, with orders or additional info:
kc2tn at comcast dot net

Amateur Radio FCC License Testing

The SJRA sponsors *FREE* Amateur Radio FCC License testing on the second Wednesday of each month. The location is: 443 Commerce Lane, Suite 5, West Berlin, NJ 08091. Registration is at 7:00 PM and testing begins at 7:30PM. Walk-ins are accepted.

VE team members can be reached at VE@SJRA.org. A calendar and more information can be found on the SJRA web site.

September Meeting
Fourth Wednesday

September 25, 2013

“Our Meetings are Smoke Free”

The meeting commences promptly at **7:30PM** in the first floor Meeting Room of the Gibson House on Main Street, Marlton, NJ 08053. Guests are always welcome.

Program For September:

Our program this month is the Club Auction! Come one, Come all!! Great time to get money for those items in your shack that are no longer needed or add to your collection of “Treasures!!” .See you there!!

September 2013 Health and Welfare:

Happy Birthday to those celebrating in September: 9th, Mark O'Brien, K2AX; 11th, Rich Wesley, KC2UXV; 13th, Alan Handley, K3WWT; 17th, Ken Weber, KC2SWB; 28th, and Michael Tolotta, W2OSD.

Kathy Edwards, KM2KME

First Class Mail

South Jersey Radio Association
PO Box 1026
Haddonfield, NJ 08033

