



HARMONICS

1916

South Jersey Radio Association

2020



President's Message

Ken- K2WB

If snow or freezing rain damages your antennas, wait for better weather to repair. No reason to be a hero, there are no rewards or prizes in getting hurt. Please be careful and think safety at all times.

Check on neighbors, friends and the elderly during inclement and cold weather.

Several members participated in the January VHF contest; I hope it was as much fun for you as it was for me. It was great hearing from several members on the air during the contest.

With all the talk about contests it is easy to conclude that the SJRA is contest club. It is just one of the things we do to talk to each other. There are a lot of other activities such as the breakfast meetings, nets and just plain getting on the air. Contests are another way to focus and create activity. We really are a general interest club. If there is something you would like to do, let me or a board member know.

The ARRL DX SSB contest is on March 7-8. If there is enough interest, I will be setting up at my QTH in the driveway to give an opportunity for anyone to experience HF operations. Even though it is a radio sport event, it is treated as an operational activity. Anyone interested can sign up for a time slot with or without help. If you wish to discuss and ask questions during your operation slot you

would be welcomed to do so. Also, you could come just to watch and observe.

This month we will be conducting three auctions at the same time. Traditionally, the February auction is the White Elephant sale. Members would donate equipment to the club and the club would auction it off and the SJRA would keep the proceeds.

We added two additional auctions at the same time, members auction and estate auction. In this case the SJRA will auction off equipment and the member or estate would keep the proceeds with a small donation to the SJRA.

Field Day will be here in about 135 days, now is a good time to start planning. Contact me if you have any questions or would like to help. I will be scheduling a meeting shortly.

DUES ARE DUE!! If you have not paid your SJRA dues the March Harmonics will be the last one that you will receive. More than half the membership has renewed at this time. Please contact Roy, WB2EOD as soon as you can.

Lastly, the Dayton Hamvention bus trip will be here soon. We still have not signed up enough people to make this venture possible. Contact John, KD2RKA if you are interested. The trip is open to anyone in any club that would wish to join.

Stay warm!

73's

Ken K2WB

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 it's 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 Rooms 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 SJRA website: www.sjra.org or from Art Arnold, N2CPR, Email: membership@sjra.org. SJRA's web page: www.sjra.org

SJRA VE Team: ve@sjra.org is the SJRA/ARRL VUCC card checker

Joe Fisher, KC2TN, is the SJRA/ARRL WAS card checker

 ★ Harmonics is now available for SJRA members 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/Groups/view/southern-new-jersey> ★
 ★ *****

Officers:

President: Ken Botterbrodt, K2WB
Vice Pres.: John Doran, W2FDJ
Treasurer: Roy Herman, WB2EOD
Rec. Sec: Carl Hyde, W2CSH
Cor. Sec: Dennis Cioffi, AC2FO

Directors:

Art Arnold, N2CPR
 Tony Canuso, N2ATB
 Holden Correia-Fisher, KD2JVP
 Matt Grohans, N2IDW
 Rick Lawn, W2JAZ
 Frank Longbottom, AA2AW
 Al Witner, N3AVT

Committees:

Historian: Mark Walters, KD2JPW
Membership: Art Arnold, N2CPR
Field Day: Ken Botterbrodt, K2WB
Contests: John Doran, W2FDJ
Repeater: Robert Sunbury, K2UQ
Programs: Carl Hyde, W2CSH
H&W: Roy Herman, WB2EOD; and Dara Herman, KC2THQ
Awards: **Vacant (Please Volunteer)**
Hospitality: Jean Priestley, KA2YKN
Nets: Matt Grohans, N2IDW
Publicity: John Johns, KD2RKA
Picnic: **Vacant (Please Volunteer)**
Ways & Means: Roy Herman, WB2EOD
Property: Frank Longbottom, AA2AW
Web Site: Ira Weinstein, W2IRA
Harmonics Staff:
Publisher/Editor: Al Ziegler, KD2ST
Alternate Editor: Ted Groke, N8MP
Circulation: Jim Vecchiola, KR2T

LOCAL WEEKLY NETS

Mondays FM Net	K2AA Repeater, PL: 91.5	145.290 @ 8PM
Fusion on 2 ND & 4 TH Thurs.	K2AA Repeater, DN mode	145.290 @ 8PM, Fusion
6M SSB on 1 st Thurs.		50.150 MHz USB @ 8PM
2M SSB on 3 RD Thurs.		144.260 MHz USB @ 8PM

Harmonics Deadline

Articles submitted for the next Harmonics will be accepted until Monday, March 9, 2020. Email:

harmonics@sjra.org

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.

South Jersey Radio Association 2020 General Membership Meeting Schedule

Ken- K2WB

All of our meetings are usually on the 4th Wednesday with the exception of November and December which is the 3rd Wednesday of the month. The other exception is October because of Halloween, when the Gibson house is setup for Halloween and this may be one of those years.

Our meeting times are 7:30 PM to 10:00 PM Local Time.

Date	Location	Remarks
January 22nd	Any Room	
February 26th	Any Room	
March 25th	Any Room	
April 22nd	Any Room	
May 27th	Any Room	
June 24th	Any Room	
July 22nd	Any Room	
August 26th	Any Room	
September 23rd	Any Room	
October 28th	Any Room	
November 18th	Any Room	
December 16th	Both Upstairs Rooms	Holiday Party



SJRA Net News

Matt - N2IDW

SJRA NET RUNNING AVERAGES

Net Type	Avg. No. of Participants
2 M FM Repeater-1 st Monday	13
2 M FM Repeater – 2 nd Monday	12
2 M FM Repeater- 3 rd Monday	11
2 M FM Repeater Swap Net- 4 th Monday	6
6 M 50.150 MHz- 1 st Thursday	8
2 M Fusion Repeater- 2 nd Thursday	8
2 M 144.260 MHz- 3 rd Thursday	6
2 M Fusion Repeater- 4 th Thursday	4

The average number of participants are based on the last five nets.

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

Email: [harmonics at sjra dot org](mailto:harmonics@sjra.org) with your listing.

New Extra Class Exam Questions

From the ARRL

The new Amateur Extra-class license examination question pool, effective from July 1, 2020, through June 30, 2024, has been released and is available at the National Conference of Volunteer Coordinators (NCVEC) website at, <http://www.ncvec.org/>.

The 2020-2024 Extra-class pool incorporates significant changes compared to the current 2016-2020 question pool, which expires on June 30. The number of questions in the pool was reduced from 712 to 622. The result was 239 modified questions, 49 new questions, and 139 questions removed due to changes in what was felt to be an abun-

dance of outdated questions, while areas of new technology and subjects were added.

In addition, an effort was made to balance the difficulty level, removing or replacing some questions deemed too easy or too difficult compared to the rest of the pool. The 2020 pool has 10 diagrams, which have been renumbered because the new question pool has two fewer than the 2016 question pool.

If you are thinking about upgrading to Extra, now may be the best time to do so before the June 30th deadline so you don't have to purchase new test manuals. Also as a reminder, the SJRA offers FREE testing on the third Wednesday of each month (see page 11 for additional details).

Limited Seating – Register Now!

2020 Hamvention Bus Trip South Jersey to Dayton, OH



**Only
\$150!**

Bus Fare and
Hamvention Ticket
(hotel separate)

**Deadline is March 1st
to Register!**

Thursday, May 14 – Sunday, May 17, 2020
South Jersey Radio Association

Agenda includes
**The National Museum
of the US Airforce**
on Friday or Saturday
(Admission not included)



**Discounted
Hotel Rooms
Available**

The World's Largest Hamfest!

Large Outdoor Flea Market	Major Prizes	Free License Exams	Dozens of Forums	Special Events Station	Inside Exhibits
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Email press@sjra.org for a registration form

2019 SJRA Awards



John Hill, W2HUV receiving the E. Miles Brown Award for Technical Merit at the January General Meeting.



John Jones, KD2RKA received the SJRA Rookie of the Year Award at the February Board of Directors Meeting.

Can Indoor Antennas Work? Yes!

By Dan Romanchik, KB6NU

Recently, a reader asked:

"I am studying your No Nonsense book as I prep for the Technician test. I am also learning CW. I am going to buy a Yaesu FT 450D as my first radio, and I want to use an indoor antenna as my first antenna. What do you recommend for CW?"

I replied: "To be honest, I've never had a lot of luck with indoor antennas. Don't let that dissuade you, though. I have worked many hams with indoor antennas. Just recently, for example, I worked a guy who was using a Buddipole (<http://www.buddipole.com/>) inside his apartment.

"If you have an attic, you could easily install a dipole up there. The ARRL web page on indoor antennas (<http://arrl.org/indoor-antennas>) notes, "Attics are great locations for indoor antennas. For example, you can install a wire dipole in almost any attic space. Don't worry if you lack the room to run the dipole in a straight line. Bend the wires as much as necessary to make the dipole fit into the available space....Ladder-line fed dipoles are ideal for attic use—assuming that you can route the ladder line to your radio without too much metal contact. In the case of the ladder-line dipole, just make it as long as possible and stuff it into your attic any way you can. Let your antenna tuner worry about getting the best SWR out of this system."

There are plenty of remote tuners now, too. You could install a doublet with elements as long as you can make them, connect them directly to the remote tuner, and

then run coax to your shack. "I have also worked guys who have used Slinky antennas inside a house. The advantage of using a Slinky is that it is electrically longer than a wire of the same length.

An attached garage might also make a good location for an indoor antenna. VE3SO, who I've worked several times, uses a magnetic loop antenna installed in his garage (<https://www.kb6nu.com/magnetic-loop-antenna-at-ve3so/>). If you do a web search for "indoor amateur radio antennas," you'll get many more ideas. Here are a few that looked promising to me:

- Indoor antenna for 7 Mhz: (<http://www.iw5edi.com/ham-radio/37/indoor-antennafor-7-mhz>).
- An Indoor Reduced Size Rectangular Loop: (<http://hamuniverse.com/kl7jrindoorloop4010.html>).

Another option might be to load up your gutters! I've worked a couple of guy who use gutter antennas, including WA8KOQ (<https://www.kb6nu.com/operating-notes-gutter-antenna-rac-contest-161-countries-worked/>) and K3DY (<https://www.kb6nu.com/operating-notes-computer-virus-club-net-gutter-antenna/>).

This blog post garnered a couple of interesting comments. K2MUN wrote, "For many years I've used an attic mounted off-center fed 40 meter dipole. With an automatic antenna tuner and a 4:1 balun I've worked lots of dx with both QRP and, more easily, 100 watts! Certainly, outdoors is much superior but an attic is a nice location in bad weather making playing with your antenna a pleasure :-). John, KD0JPE, said, "If you have an attic available, check out the follow-

(Continued on page 9)

Radio Sport aka Contests

John, W2FDJ, johnd152 at Verizon dot net

Member's Activities:

Please send your thoughts and ideas to me at **johnd152 at Verizon dot net** for publication.

ARRL January VHF Contest (was January 18-19th).

Congrats to Bob, N2SCJ for his winning SJRA score. Bob put in the hours and efforts to earn the top position. And, I thank Bob for helping me achieve my first ever contact on 1,296 MHz.

Activity level was good throughout the contest, however there were hardly any distant grids to be worked. Thanks to all for submitting so many summaries. Here are the results.

Name	#QSO'S	#GRIDS	PTS
Bob, N2SCJ	201	14	4,004
Paul, KF2Y	111	20	2,820
John, W2FDJ	99	15	1,815
Dara, KC2THQ	102	12	1,572
Roy, WB2EOD	102	12	1,572
Holden, KD2JPV	80	10	880
Dom, KD2EPM	44	7	378
Bob, KE2D	30	7	210
Karl, KD2SSE	32	5	160
Mark, KD2JPW	24	4	116
Joe, K2WJL	17	3	51

Upcoming Contests – see arrl.org or contestcalendar.com for rules and more details.

Every Tuesday only

Phone Frey 9:30-10pm. (yes 30 min) (ten weeks -4 times a year).

Every Wednesday only

CWops Mini-CWT test 8-9am, 2-3pm, 10-11pm (three one hr. sprints).

Every Thursday only

NCCC Sprint 9:30-10pm. (yes 30 min.).

Every Thursday only

NCCC RTTY Sprint 8:45-9:15pm. (30 min.).

ARRL International DX Contest: 2/14-16, Fri. 7pm EST to 7pm Sun. HF; CW.

CQ 160-Meter Contest SSB: 2/21-23, Fri 5pm EST to 5pm Sun. 160 mtrs. SSB.

ARRL International DX Contest: 3/6-8, Fri. 7pm EST to 7pm Sun. HF; SSB

CQ WW WPX Contest SSB: 3/27-29, Fri 8 pm EDT to 8pm Sun. HF; SSB

ARRL Rookie Roundup: 4/19, Sun 2 pm EDT to 8pm Sun. HF; SSB.

Looking Longer Range:

CQ WW WPX Contest CW: 5/29-31, Fri 8pm EDT to 8pm Sun. HF; CW.

ARRL June VHF Contest: 6/13-14, Sat 2pm EDT to 11pm Sun. VHF, All modes;

ARRL Kids Day: 6/20, Sat 2pm EDT to 8pm Sat. HF + 2m rptr SSB + 17, 12 mtrs

ARRL Field Day: 6/27-28, Sat 2pm EDT to 5pm Sun. HF; All.

If You Have Not Already Done So, It's Time to Renew Your SJRA Membership

This is just a brief reminder that DoozRdo on January 1, 2020. We've tried our best to make it convenient for you by going to the Club's website and following the instructions on the renewal form: <https://sjra.org/sites/default/files/2018%20RENEWAL%20AND%20NEW%20MEMBER%20FORM%20updated%203%2014%202018.pdf>

Please renew your membership today.



Thanks, and 73,
Roy Herman,
WB2EOD
Treasurer, SJRA
19 Bryce Road
Voorhees, NJ 08043

Meeting Minutes

AI- KD2ST

There are no meeting minutes in this issue because there was no Board Of Directors Meeting in January.

The February BOD minutes will be published in the March issue.



SJRA Monthly Breakfast

Join us on the second Saturday every month at 9:30 am at the **Bob Evans Restaurant**; 601 Fellowship Rd, Mount Laurel, NJ 08054 for an informal get together.

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VE Report for January 15, 2019

The SJRA would like to congratulate the following on their recent achievements.

Charles A. Caldwell, KD2THG

17 East Henry Street
 Palmyra, NJ 08065
 Earned his Tech

Charlie Li, W3QJD

PO Box 582
 Ardmore, PA 19003
 Earned his General

Walter C. Reeves, KD2RRU

42 Skyline Dr.
 Sicklerville, NJ 08081
 Earned his General

Leonard J. Rust III, W2LJR

9 Acrux Court
 Sewell, NJ 08080
 Earned his General

Donald R. Satchwell, KD2THH

204 Woodhollow Drive
 Marlton, NJ 08053
 Earned his Tech

Total New or Upgrades to Date			
Tech	General	Extra	Total
168	82	39	289

The 300th person to obtain an initial license or upgrade with the SJRA VE team wins free SJRA Membership for one year!

(Can Indoor Antennas Work? Continued from page 6)

ing 6-band coax trap-based antenna: <http://degood.org/coaxtrap>. I constructed one of these nine years ago and have had great results with it. The bottom line is that indoor antennas can definitely work. They may take more work to put up than outside antennas, but as the saying goes, "Any antenna is better than no antenna."



Dan Romanchik, KB6NU, is the author of the KB6NU amateur radio blog (<https://www.kb6nu.com/>), the "No Nonsense" amateur radio license study guides (<https://www.kb6nu.com/study-guides/>), and often appears on the ICQPodcast (<https://www.icqpodcast.com/>).

SJRA Auctions

This month's program is the combined Estate and Consignment Auctions and the White Elephant Sale. The White Elephant Sale benefits the Club with the proceeds going to the Club. Consignment or Estate Auction Sellers would keep the proceeds with a small donation to the SJRA.

So bring your spare gear and we will sell it for you. Also, bring plenty of money because you will want to bid on those nice items others are bringing to the sale. This is a FUN event, hosted by SJRA. Remember to bring your old Ham Stuff and turn it into Green!

Upcoming Regional Hamfests March 2020

March 3rd: **Bergen Amateur Radio Association Annual Auction** 1pm to 4pm at Westwood Regional Jr./Sr. High School 701 Ridgewood Road Township of Washington, NJ 07676. Flyer: <https://www.bara.org/wp-content/uploads/2018/12/BARAAuction2019.pdf>

March 14th: **Cherryville Repeater Assn. Cherryville Hamfest & Technology Expo** 8am to 2pm at North Hunterdon Regional High School, 1445 State Route 31 South, Annandale, NJ 08801. Website: <https://www.qsl.net/w2cra/>

SJRA is Now on Facebook

For those who have not heard, we have a SJRA group page on Facebook. It allows us to share files/pictures, demonstration videos, announcements, reminders, etc. If you are active on Facebook, please join us and invite any prospective SJRA members to do the same.

<https://www.facebook.com/groups/SJRA.K2AA/>



Items for Sale

Transceivers For Sale:

- **Icom 7600** - Mint. All accessories including manual and box.
- **Yaesu FT-817ND**— Mint. Includes power cords, microphone, manual & box.
- Late serial number **ICOM 706MK2**. Voice synthesizer, 1.9 narrow SSB filter. Complete with hand mike, mounting bracket, screws, uncut power cord.

Full output on all bands 160-440. **\$550**

Add auto tuner AT-180 for \$200 more.

For any of the above contact **Art, NC2CPR**. **Artarnold at yahoo dot com**

Antennas for Sale:

Cushcraft A3W with 30m driven element. For WARC bands 30/17/12m: **\$150.00**

Hy-Gain TH6DXX— 20/15/10m: **\$150.00**

Hy-Gain 402BA— 2 Element 40m Beam: **\$200.00**

They will be disassembled and marked for easy reassembly and transportation.

Contact by email: **ken at k2wb dot com**

Cushcraft Model A-3WS 3 element WARC bands beam antenna still in the box never opened. Will accept any reasonable offer for it or willing to trade or deal. If interested please contact **Jack Froehlich, W2AF** at **856-809-2965** or **609-352-9696**.

The antenna can be picked up in Atco, NJ. Thank you for your time.

SJRA Jackets, Shirts, Hats

Order NOW - Next order going in soon!



Spring Jacket is \$51 (S,M,L,XL), Fall Jacket is \$58 (S,M,L,XL),
 Shirts are \$28 (S,M,L,XL), Hats are \$20 (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 third Wednesday of each month, except Nov & Dec. TBD. The location is: New Brooklyn United Methodist Church; 1336 E. Malaga Rd. Williamstown, NJ 08094. Registration is at 7:00 PM and testing begins at 7:30 PM. Walk-ins are accepted.

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

February Meeting:**Is the Fourth Wednesday, February 26, 2020**

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

Program For February:

The February program is the Club Auctions. The Estate Sale, Members and the White Elephant Auctions will take place at the February General Meeting.

SJRA Member March Birthdays

March birthdays are: Howard Bates, KC2SNK; Chris Cannatella, KC2GNQ; Francis Canuso, N2ATB; Edward Casey, K2MBC; Albert Kaiser, W3LEQ; Gary Triplo, KD2EBX and Ira Weinstein, W2IRA.

Health and Welfare Co-chairpersons: Roy, WB2EOD and Dara, KC2THQ

March Meeting:**Is the Fourth Wednesday, March 25, 2020.****First Class Mail**

South Jersey Radio Association
15 Pelham Road
Marlton, NJ 08053

