



HARMONICS

1916

South Jersey Radio Association

2020



President's Message

Ken- K2WB

I want to thank all of the front-line people for their efforts with the COVID-19 virus. This goes to all of the medical personnel, Police, Firefighters and those who continue to stock the shelves in the retail markets to keep us all sustained.

Seems like you don't have to look far to find an impact of the COVID-19 virus. The personal impact has a broad range of items for most, if not all members of the SJRA. Some have had their jobs put on hold, others are on the front line working in the hospitals.

Unfortunately, the only thing we can closely predict is tomorrow's weather. It is because of the uncertainty the SJRA has been formulating a Plan-B for Field Day. At this point in time we are not able to even apply for a permit to operate at any public place. Even if we could get a permit, I doubt we can get the man power to support our usual 7A Operation safely and still have fun.

The ARRL suggested that we should have a Plan-B available. Our Plan-B is to go rouge. See the article in Harmonics regarding Field Day.

Our Virtual meetings are going well, this may be the way we are going to meet for the

next couple of months. Please pay attention to the SJRA emails for up to date details.

At the last General meeting we announced a new web team and a different direction for our web site. Please use www.sjra.club for the time being while we are connecting it to the www.sjra.org domain. Your patience is appreciated. I want to thank Ira, W2IRA for his help with the Website for the last seven years, he has put a lot of work and effort into it to get us to this point. It was not an easy task and took a lot of hours of his time. As always, we are constantly looking for content contributors to join the team. If you are interested please contact me directly.

There has been a change with the K2AA repeater gentlemen's agreement with using the C4FM on the K2AA repeater. It has been determined that the members have caught up with the technology. Morning and Evening drives can be conducted via C4FM, however leaving the SJRA Room to other rooms should be discouraged during these times. Morning is 6:00 AM to 9:00 AM and Evening is 4:00 PM to 6:00 PM. The K2UK repeater is getting close to being connected to Wires-X. Thanks to the hard work of Bob, K2UQ stay tuned for more updates.

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 12, 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 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.club. SJRA's web page: www.sjra.club

SJRA VE Team: ve at sjra.club 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.club> ★
 ★ 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

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Art Arnold, N2CPR
 Tony Canuso, N2ATB
 Holden Correia-Fisher, KD2JVP
 Matt Grohgans, 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 Grohgans, N2IDW
Publicity: John Johns, KD2RKA
Picnic: **Vacant (Please Volunteer)**
Ways & Means: Roy Herman, WB2EOD
Property: Frank Longbottom, AA2AW
Web Site: Ken Botterbrodt, K2WB
Harmonics Staff:
Publisher/Editor: Al Ziegler, KD2ST
Alternate Editor: Ted Groke, N8MP
Circulation: Jim Vecchiola, KR2T

LOCAL WEEKLY NETS (See Website for latest updates)

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, June 8, 2020. Email:

harmonics@sjra.club

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.

SJRA's Has A New Website

AI- KD2ST



For the last few months, a newly formed committee has been working hard behind the scenes to create a new interactive website for the club. At the April general meeting Ken, K2WB, presented the new website to the attendees and the next day (April 30th) the updated SJRA club website went live! The updated site can be viewed at www.sjra.club, shortly it will be available at www.sjra.org.

We would like to extend our appreciation to Ira, W2IRA, for his contributions in administrating the original SJRA club website for many years. Thank you, Ira!

The most current event club information will be featured on the calendar page and is a great place to start when browsing through the website. The calendar page includes:

- Current events and activities. Additional detailed information on various activities can be seen by mouse click on the activity for that date.
- Net Schedules.
- VE Team testing sessions.

- Other Contest Information.
- Members will be able to request updates and additional activities to be added to the calendar. Such as antenna work parties and other items that would be of interest to the club.
- And more!

Throughout the site there are relevant slide shows that are updated on a regular basis.

The updated website has the following additional features:

- The home page has some more dynamic features:
 - Has real-time SJRA repeater status and current propagation information for the various bands (just scroll down).
 - Live club Instagram Feed.
- There is an updated section on field day including previous scores. The new website will support updating the field day schedule/sign in sheets in real time so that each band captain can administrate their particular areas of responsibility. Club members can request a time slot online by simply clicking and filling in a request.
- SJRA membership application and renewal forms can be downloaded directly from the website.

A members-only section (work in progress) will be added to include:

- The on-line edition of the Harmonics newsletter.

(Continued on page 4)

(SJRA Website Continued from page 3)

- On-line payment of dues.
- The membership roster.
- Elmer Help Section.
- And more.

If you have not already done so, please check out the new website at: www.sjra.club. If you have any questions or comments regarding the website, please contact the web team directly at: webteam at sjra dot club.

The Website Committee consists of Ken, K2WB; Holden, KD2JPV; John, K2QA; John, KD2RKA, John N3KXD and Rick (volunteer non-member). Don't worry we are working on him to join and get a license. First things first.

If you would like to assist with website, we need help with content editors and other information. Please contact the webteam at sjra. dot club.

Field Day Results

Year	Score	Category	QSO's	Participants	Rank
2020	TBD	7A	TBD	ALL	Best we can!
2019	15,648	7A	4,171	68	1st Place 7A, 6th overall
2018	15,964	7A	4,227	66	1st Place 7A, 7th overall
2017	18,154	7A	5,156	56	1st Place 7A, 5th overall

Screenshot of FD results.

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/>



SJRA Membership Drive

Attention SJRA Members: Sign up four new members by December 31, 2020 and get your 2021 Membership free.

For additional information please contact Art, N2CPR or email:

Membership at sjra dot club

SJRA Field Day 2020 de K2AA 7E SNJ



Logo Credit: ARRL

Did you say 7E?

This year's SJRA field day will certainly be different. In ARRL's letter of April 23rd, the ARRL suggests taking a creative approach to field day. The ARRL is suggesting that because of the unique circumstances presented this year- this can be an opportunity for you, your club and/or group to try something new. Field Day is not about doing things the same way year after year - use this year to develop and employ a new approach that is in line with our current circumstances.

With this in mind, SJRA's field day committee chairperson Ken, K2WB, and his committee are planning a different tactic for this year's field day operation. At the writing of this article the club is not able to obtain a permit to operate in any public park or location. This might change and even if it does, we feel that it would be difficult to get enough help to safely execute our normal plan. To that end our plan "B" is as follows:

Our concerns over safety and wellbeing of all SJRA members is the driving our decision to forgo the 1,000-ft circle rule and expand it to the 175-mile radius rule for general contesting. This will provide safe social distancing practices and we can still operate as a club.

The upside is that it will demonstrate to the world that the SJRA can adapt to any emergency. The downside is that our score would be disqualified from the ARRL since we will make a full disclosure at the submission of our log and score.

- Instead of a group gathering at the Savich Field site, club members will operate individually out of their homes/yards in a coordinated manner.
- SJRA will operate K2AA in the 7E category. This will allow seven club stations to operate simultaneously per the band / Mode as coordinated by the band captain's operating schedule/sign-up sheet. Operating as an "E" category, we will be able to contact all classes of field day stations.
- To qualify for the "E" category, all stations will need to run the transmitter and receiver on emergency power. Since only the rig needs to be on emergency power, a relatively inexpensive 1- kw or smaller generator would be needed. For clarification, the rest of you station and antenna would remain as it is.
- All operators will be operating their own stations using a power output of 150 watts or less. Multi-op stations would be discouraged due to social distancing policies that may or may not be in effect at the time of Field Day.
- Interconnecting the stations is a little tricky. Before Field Day all stations would have to be tested with N1MM+ logging software for this event and special VPN software. Additional stations would not be added during Field Day. Once FD starts the focus will be to make contacts and not getting anyone connected.
- It is our plan not to have a GOTA station this year, since it would be difficult to coordinate.

(Continued on page 6)

(Field Day Continued from page 5)

- We will be able to earn bonus points but not as many as in a typical year.

This year's band captains are:

BAND CAPTAIN	MODE	BAND(S)
Carl, W2CSH	SSB	75, 15 & 10
Ken, K2WB	SSB	40
Dennis, AC2FO	SSB	20
Al, N3AVT	CW	80, 15 & 10
Bob, KE2D (2 stations)	CW	40 & 20
Al, KD2ST	DIGITAL	80 - 10

Club members interested in participating this year will be able to sign up for a time slot on the club's new website: www.sjra.club. Please check the website for the latest updates and additional information as it becomes available.

Bob, KE2D is working out the logistics of networking all the operating stations with the N1MM+ logging program for the K2AA club entry. The initial tests look very promising.

This year's event will be interesting and there is a benefit that maybe some members that normally could not make it to the field can operate out of their QTH. I hope many members will take advantage of this situation and help keep K2AA a top contender!

Look for several online meetings for training and planning activities in the next coming weeks.

73'

Al, KD2ST & Ken, K2WB

Items for Sale

Transceivers For Sale:

- **Kenwood TS-590SG**– Mint condition– only 2.5 months old. **\$1,000.**
- 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, N2CPR. 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.

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.

April and most of May are quiet for major contests, but I hope you were able to enjoy participation in some on air events, like the many state QSO parties. The next major worldwide contest will be the CQ WW CW WPX on May 29-31. Meanwhile, see below for a few interesting contests the next few weeks of May.

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

Every Tuesday only

Phone Frey 10:30-11pm. (yes 30 min) (ten weeks -4 times a year).

Every Wednesday only

CWops Mini-CWT test 9-10am, 3-4pm, 11pm-12am (three one hr. sprints).

Every Thursday only

NCCC Sprint 10:30-11pm. (yes 30 min.).

Every Thursday only

NCCC RTTY Sprint 9:45-10:15pm. (30 min.).

50 Mhz Spring Sprint: 5/9, Sat 7pm EDT to 11 pm. 50 Mhz. Modes not specified.

Hamvention QSO Party: 5/16, Sat 8am EDT to 8pm Sun. HF – CW, SSB.

Day of the YL's Contest: 5/23-24, Sat 8pm EDT to 8pm Sun. HF – CW, SSB, RTTY.

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 11 pm 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.

Looking Longer Range:

North American QSO Party, RTTY: 7/18-19, Sat 2pm – 2am Sunday. HF – RTTY.

North American QSO Party, CW: 8/1-2, Sat 2pm – 2am Sunday. HF – CW.

North American QSO Party, SSB: 9/15-16, Sat 2pm – 2am Sunday. HF - RTTY.

World Wide Digi DX Contest: 8/29-30, Sat 8am – 8am Sun. HF – FT4/8

Meeting Minutes

The April meeting minutes were not available for this edition.

VE Report

VE sessions have been postponed due to the Covid 19 situation. The VE sessions will resume once it is safe to do so.

Total New or Upgrades to Date

Tech	General	Extra	Total
168	82	41	291

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

Check Out Our New Website at:

www.sjra.club

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

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

New Members

The SJRA would like to welcome the following new member to our Club:

- Jay White, KD2RPX

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A Modest Proposal (for the next Extra Class question pool)

By Dan Romanchik, KB6NU



At our last club meeting, I was discussing the changes to the Extra Class question pool with someone, and the topic of memorizing the answers popped up. As I always do, I mentioned that many of the questions you can only get right by memorizing the answer. At that point, someone down the way piped up. "Not me," he said, "I studied the material so that I didn't have to memorize the answers."

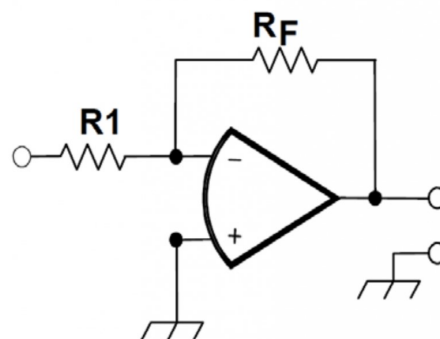
At that point, the president called the meeting to order, so I did not get to challenge him on that point, but that statement is just plain wrong. First of all, it's true that some questions you can only get right by memorizing the answer. Almost all of the rules questions are that way, for example.

Secondly, there is no way to study the rest of the material in any depth and still have time to actually be an amateur radio operator. The amount of material that the Extra Class question pool covers takes an electrical engineering student four years or more to study thoroughly. And even then, some topics are bound to get short shrift.

So, we're back to memorizing. I would say that even an "engaged" person will memorize about half the answers. I'd go even further and say that those that "study" the technical topics, don't study it as thoroughly as a college student would.

For example, there are a dozen questions in Section E7G - Active filters and op-amp circuits: active audio filters; characteristics; basic circuit design; operational amplifiers. Despite the name, you do not need to know how to design or build an op-amp filter. All you really need to know is that op-amps are high gain devices and if you have a circuit like the one shown below, $V_{out}/V_{in} = R_F/R_1$.

Figure E7-3



These concepts are relatively easy to learn, but there are also two questions on filter "ringing." Honestly, you're better off just memorizing the answers to those questions unless you have a real interest in active filters that use op amps. Wading into the mathematics isn't all that hard, but when you consider this is only one of dozens of topics, you can see where doing any kind of in-depth study is going to take you months, if not years, to accomplish.

(Continued on page 10)

(A Modest Proposal Continued from page 9)

A Modest Proposal

The end result of this approach to testing is that we have many Extra Class licensees who know about a lot of things, but not in very much depth. Perhaps that's OK. Perhaps that's just what the question pool committee of the National Council of Volunteer Examiner Coordinators (NCVEC) was shooting for. If, however, we want an Extra Class license to denote that the licensee has some real technical expertise, I have a modest proposal.

Basically, my idea is that instead of testing on an incredibly wide range of topics, we test applicants on a set of basics, plus one or two particular topics. These would be topics that the person has expertise in already or enough of an interest in to study the topic in some depth.

Below are the topics that I would consider to be basic and some that I consider to be more specialized. This is, of course, not an extensive list.

- Basic questions (20 questions, everyone takes this part of the exam)
- Safety
- Rules and regulations
- Electrical principles/basic circuits

Technical Interests (Choose two, 20 questions each)

- Antennas and transmission lines
- Radio wave propagation
- EMI/RFI
- Analog and digital design
- Digital communications and networking

- Software/software-defined radio
- Operating: contests, DXing, direction finding, etc.
- VHF/UHF

The questions in each of the technical interest question pools would be designed to really test the knowledge of the person taking the test. We would have to figure out a way to make them difficult enough so that one couldn't just simply memorize the answer. Questions could appear in one or more technical interest test. For example, a question on VHF/UHF propagation could appear in both the Radio Wave Propagation and VHF/UHF question pools.

Having said all this, I realize that this would not be easy to implement. You'd have to first decide on the topics and then enlist experts for each of the topics and get them to come up with a list of 80 - 100 questions each.

I realize that this has very little chance of being adopted, but it's interesting to think about, no? And, we have four years to do this, so it could be possible.



Dan Romanchik, KB6NU, is the author of the KB6NU amateur radio blog (KB6NU.Com), the "No Nonsense" amateur radio license study guides (KB6NU.Com/study-guides/), and often appears on the ICQPodcast (icqpodcast.com). When he's not thinking up ways to make the lives of the NCVEC question pool committee more difficult, he likes to build stuff and operate CW on the HF bands.

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 club*. A calendar and more information can be found on the SJRA web site.

May Meeting (On-Line):
Is the Fourth Wednesday, May 27, 2020

The meeting commences promptly at 7:30 PM in the convenience of your own home via Webex.

Program For May:

The May Program has not been finalized. Please refer to the Website or announcements on the e-mail reflector for updates.

SJRA Member June Birthdays

June birthdays are: William Bowen, KD2DOP; Dennis Cioffi, AC2FO; Mario Dianora, N2AK; Roy Herman, WB2EOD; Frank Longbottom, AA2AW; Jonathan MacMillan, W2MC; Robert Novelle, W2RWN; John Peterson, KD2ODE; Jean Priestley, KA2YKN; Raymond Smith, KD2FMX

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

June Meeting:
Is the Fourth Wednesday, June 24, 2020.

First Class Mail

South Jersey Radio Association
15 Pelham Road
Marlton, NJ 08053

