



HARMONICS

1916

South Jersey Radio Association

2018



President's Message

Ken – K2WB

As the current Board of Directors and Officers enter their 2nd year serving the SJRA. There have be a number of the "Changing of the Guard" in process. Ted, W2TAG who has served as the Harmonics Editor since before 2008 is stepping down and Al, KD2ST is taking his place in a transition process. Last month's harmonics was the first in so many years that was not produced by Ted. You would have to look pretty hard to notice anything different. Kudo's to everyone with the transition process.

At the writing of this column the SJRA will be 102 years old. It is a privilege being part of the next 100 years of the new history of the SJRA.

Our Field Day operation is world class. We have fun and still manage to hold a strong position in the top position our category of 7A. It is a great opportunity to meet and work with fellow SJRA members. This year we are going to attempt to

(Continued on page 5)

Radio Sport aka Contests

John, W2FDJ, johnd152 at Verizon dot net

Member's Activities:

Please send your thoughts and ideas to me for publication.

The most recent CQ Worldwide Prefix contest held over Friday-Sunday May 26-28 gave me another chance to experience the wonder and unpredictability of how the HF bands function. (Propagation): I was pleasantly surprised to find 10 meters open and somewhat active.

I actually made nine whole contacts with places as far as Venezuela, California, Texas and Florida, which was 3 more than I was able to make on 80 meters. Ten was open at the beginning of the contest around 7PM on Friday and again around noon on Saturday. 15 meters was also fairly active, but 20 meters was my best bet throughout the weekend. So never assume 10 meters is dead, give it a try, and make a few CQ's and who knows who else is there.

A book you may find interesting on this subject is ARRL's "*Propagation and Radio Science*" by Eric P. Nichols, KL7AJ.

Please send me your summary sheet so I will be able to list your claimed score next time. John/W2FDJ; contests at sjra dot org

Upcoming Contests - see arrl.org or

(Continued on page 10)

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 SJRA website: www.sjra.org or from Alan Handley, K3WWT, 610-532-5407 Email: sjra@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/sections/?sect=SNJ>

Officers

President: Ken Botterbrodt, K2WB
Vice Pres.: Jon MacMillan, W2MC
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Cor. Sec: Dennis Cioffi, AC2FO

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 John Doran, W2FDJ
 Tony Canuso, N2ATB
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Committees:

Historian: Mark Walter, KD2JPW
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Field Day: Ken Botterbrodt, K2WB
Contests: John Doran, W2FDJ
Repeater: Joe Fisher, KC2TN
Programs: Rick Lawn, W2JAZ
H&W: Roy Herman, WB2EOD; and Dara Herman, KC2THQ
Awards: Rick Lawn, W2JAZ
Hospitality: Jean Priestley, KA2YKN
Nets: John Fogleboch, WY2J
Publicity: Vacant (Please Volunteer)
Picnic: Vacant (Please Volunteer)
Ways & Means: Ray Golley, N3RG
Property: Jon MacMillan, W2MC
Web Site: Ira Weinstein, W2IRA

Harmonics Staff:

Publisher/Editor: Al Ziegler, KD2ST
Alternate Editors: Ted Groke, W2TAG and Jon MacMillan, W2MC
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
2M SSB on 3 RD Thurs.		144.260 MHz USB @ 8PM
6M SSB on 1 ST Thurs.		50.150 MHz USB @ 8PM

Harmonics Deadline

Articles submitted for the next Harmonics will be accepted until Monday, July 10, 2018. Email:

harmonics at sjra dot 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.

Meeting Minutes

Membership Meeting of 23 May 2018

The meeting was opened at 1934 by Ken, K2WB, at the usual location, the Gibson House in Marlton, NJ. The group saluted the American Flag. Ken then greeted those present, the question of the month was "What are your plans for field day."

Roy, WB2EOD, gave the treasurer's report, to include 116 members (2 approved but not paid). His report was approved by the membership, motion by KR2T/NJ2IT.

Membership, by Art, N2CPR, 3 new members: Tom Forner, KD2PPA; Jeff Pennel KA2DHE; Nick Silvestri N0PJS. Art then mentioned the membership drive; sign 2 new members by Dec. 31, Get 2019 dues.

Health & Welfare; no known ill members.

Programs by Rick, W2JAZ- the Jersey Storm will not appear, so we go to "Plan B" by breaking into discussion groups.

Harmonics- Al Ziegler, KD2ST, has volunteered as new publisher.

VE team; We have a new date & location for our sessions: now third Wednesday of each month (Nov & Dec tentative), at New Brooklyn United Methodist Church, 1336 E. Malaga Rd, Williamstown, NJ 08094, in the social hall next to the church. Questions to: [ve at sjra dot org](mailto:ve@sjra.org).

Nets- Matt, N2IDW- 2 meter simplex net, (Vertical polarization), 6 meter net, (50.150 MHz) recurring on 1st Thursday, (probably Horizontal Polarization)

Repeater- K2WB- Working on drawings, & formal proposal for Pine Hill MUA.

Radio Sport; W2FDJ, John: Field day 6/23-24; 7/2-8 10-10 International Spirit of 76 QSO party; 7/14-45 IARU HF World Championship; 7/21-22 North American QSO party & CQWW VHF contest.

Field Day- Safety is considered extremely important. Anyone working near a tower, MUST wear a hard hat.

No old or new business was discussed.

The drawing was won by Roy, WB2EOD who donated it to the repeater fund. / Lou, N2HQL

Minutes of Board Meeting of 2 May 2018

The meeting opened @ 1930 by Ken, K2WB, at the Gibson House. Minutes of the April Board meeting were approved as read, motion by N2HQL/N2CPR.

Roy, WB2EOD gave the treasurer's report, we are up to 113 members. Report approved on a motion by N3ATV/N2CPR.

Membership by N2CPR: Candidates; Tom Forner, KD2PPA (T); Jeff Pennell KA2DHE (N); Nick Silvestri, N0PJS (G). All were accepted, motion by N2CPR/W2JAZ.

Web team, by NJ2IT- still need help, editors, writers etc.

Harmonics; Al Ziegler, KD2ST has volunteered to be the new editor, and discussed needs, and possible changes.

Nets by Matt, N2IDW; some changes possible, possibility of a swap net. Always need net controls. First Thursday of the month will be held on 6 meters (50.150 MHz.) until further notice.

(Continued on page 9)

Ham Radio Deluxe Software

A Webinar with Dr. Michael Carper, WA9PIE, of HRD Software LLC. is tentatively scheduled for the July General Meeting to present the Ham Radio Deluxe software program. This is part one of a two-part article from Mike's Blog discussing DX Cluster Connections and is published with permission from Mike, WA9PIE. Additional information and the latest updates are posted on Mike's blog at: <https://www.Ham-Radio-Deluxe.com/blog>.

Introduction and Brief History to DX Clusters

By Mike, WA9PIE

I often get questions about the use of DX cluster connections. There's a lot of misinformation out there. The purpose of this newsletter is to explain a bit more about DX clusters. This will help you get the best out of your DXing. Understanding how DX clusters work will enable you to get the best out of the DX aspects of amateur radio.

The purpose of a DX cluster is to alert interested hams (DXers) that there's a DX station on-the-air.

Before there were DX cluster nodes available, hams alerted each other by using a technique called "the two-ringer." When this was used, a ham would call his buddy and hang up on the second ring. This alerted the buddy that there was DX on-the-air. But what? And where? A few hams in the area would begin to gather on a local VHF repeater or simplex frequency and this is where the information was provided. "Hey guys, I just worked King Hussein, JY1, on 14.175 MHz!"

I'm pausing for a moment to point something out. That is - this information has now been shared with how many hams? Three? Five? Maybe ten? Top end, fifteen? I'll get back to this point about coverage area later in this newsletter. It's an important point.

Eventually, software was created that allowed hams to connect over a VHF frequency (if I remember correctly, it was something like 144.95 MHz; if not, I'm close). The connection was a telnet connection. Now, the number of connected stations began to increase. Now, several dozen hams in a local area could connect and share DX information. The "two-ringer" was gone.

Soon, the software was capable of connecting to other (peer) nodes over the Internet. At first, some hams resisted this. "The Internet is not ham radio." (Neither was the telephone connection used for the "two-ringer.") But now, spots were propagated between DX cluster nodes. Information was now shared between hundreds of hams.

Once broadband Internet service became widely available, it was no longer necessary to use VHF for the connections. Now, hams could connect over a telnet connection over the Internet. Now, information could be shared between thousands of hams. This is accomplished when DX cluster "nodes" are connected together as "peers" across the Internet.

DX Cluster node software developed into the three most popular types - AR Cluster was the early favorite. Later came DX Spider and CC Cluster. While each type had some minor differences, standards developed that enabled spots to be propagated between them. For connected hams, there's not a great deal of difference in the node software itself. Other considerations are more important.

(Continued on page 8)

(President's Message from page 1)

run 7A again by the addition of a digital station. We are also doing several reconfigurations.

Most importantly we need your help.

Setup will start around 9:00 AM on Friday June 22nd and will continue to sunset. Then again around 9:00 AM on Saturday until the start of the contest. Operations will run 24 hours starting at 14:00 on Saturday.

Take down is equally important and also requires a lot of help. Please come out and support your radio club. There will be an operator monitoring K2AA Friday and Saturday. When you head over check in on the repeater as you leave your QTH. We may need something that you can bring or help with.

The Club QSO party went well last year with four clubs joined the fun. We will be doing it again and of course I need help. Contact me if you are interested.

73's

Ken K2WB

Items for Sale

1- A TA-53A antenna with the 40-meter conversion kit which the TA-53A has to be taken down off a Rohn 30 foot crankup tower and the 40-meter kit is already bundled up on the ground asking \$200.00 for the beam and 40 meter kit.

2- A 30 foot Rohn galvanized crank over and crank up tower that has to be taken down but is in great shape, new crank up braded wire stainless steel and crank over wires. Asking \$200.00.

These have to be removed for I have sold my house at 16 Railroad Avenue in Sicklerville (Cedar Brook area) and moved into a 55-over residence. I am disabled and can not take the tower or antenna down. If interested in either contact Jack Froehlich, W2AF, at home 856-809-2965 or cell 609-352-9696. Thank you for your time.

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Is the Internet, Millennials or FT-8 Killing Ham Radio?

Dan, KB6NU, cwgeek at kb6nu dot com

Amateur radio bloggers love to write about the demise of amateur radio. To wit, we have:

- K0NR's Is the Internet destroying amateur radio? (www.k0nr.com/wordpress/2017/11/internet-destroying-amateur-radio/)
- N0SSC's Millennials are killing ham radio (<http://n0ssc.com/posts/583-millennials-are-killing-ham-radio>)
- PE4BAS' Is FT-8 damaging amateur radio? (<https://pe4bas.blogspot.com/2018/04/is-ft8-damaging-hamradio.html>)
- NZ0T's Did Joe Taylor, K1JT Destroy Amateur Radio? (<http://www.ei5di.com/jt.html>)

Of course, none of these posts are really saying that the internet, millennials, or FT-8 has killed amateur radio. What they are saying is that all of these are changing amateur radio as we know it. Well, duh, the way we live our lives changes every day. Why should amateur radio be any different?

For example, Bob, K0NR, discusses how the operation of remote stations is changing the game of DX. Can you really claim that you worked a DX station if you rented time on a super station? I've written about that topic, too (<https://www.kb6nu.com/dx-advisory-committee-wants-to-put-the-screws-to-remote-operation/>).

There has also been much written about how FT8 is changing the amateur radio game. One blog post (<https://ve7sl.blogspot.com/2017/10/160m-ft8-end-of-era.html>), talking about the effect of FT8 on 160m operation, even goes so far

to say that this is the "end of an era." On DX World, the results of the poll, "FT8 - Damaging to Amateur Radio?" (<https://dx-world.net/yes-or-no-a-poll-on-ft8/>) show more than half of the respondents think that FT8 is damaging amateur radio.

I specifically used the word "game" in the previous two paragraphs because that's exactly what's changing. The physics of amateur radio certainly isn't changing. Our transmitters are still generating electromagnetic waves like they have been for decades, and on the HF bands, anyway, those radio waves are bouncing off the ionosphere just as they have been for more than the past 100 years.

What's changing is the human component. By that I mean what's changing is how we think people should participate in the hobby. The hams that are complaining that the internet or millennials or FT8 is killing amateur radio are really just complaining that people aren't participating in amateur radio the way they want them to participate.

Here's where we talk about millennials. In his blog post, Sterling, N0SSC, suggests that setting up remote stations is one way to engage young people. He writes, "I believe that remote operating, and other internet-assisted means of ham radio operation, are critical to youth engagement."

He's also big on an idea he calls "ham radio hackathons." He writes,

"A hackathon isn't a coding competition. It's explained well in this Medium article (<https://medium.com/hackathons-anonymous/wtf-is-a-hackathon-92668579601>). It goes even further than that, not limited to coders and engineers, but open to thinkers, doers, philosophers, system engineers, math people, teachers, students, artists, stakeholders...anyone with an interest in **solving a problem with**

(Continued on page 7)

(FT-8 Killing Ham Radio? Column from page 6)

technology.”

I support both of these ideas, but I think that millennials (and, to be fair, it isn't just millennials we're talking about here, but any newcomers to the hobby) need to step up and get these things going. I don't think it's my job to try to get kids interested in amateur radio. I don't even know if that's really possible. What I can do, however, is be there to encourage and support kids (and anyone else that expresses a sincere interest in amateur radio).

For example, I'm not sure how fruitful it would be to set up my station to be remotely operable and then saying to some kids, "Hey, come and operate my station." What I think would be more fruitful is to say to a kid, "Hey, come help me set up my remote control station, so that we both can use it." Then, it turns into a learning situation, and we both gain from the exercise.

The same kind of thing has to happen with ham radio hackathons. The motivation has to come from the ground up, not the top down. I do hope that this idea gets off the ground, though, and I'm standing by, ready to support this effort however I can.

I think that millennials (I'm really getting tired of that term, by the way) need to grab the bull by the horns and take amateur radio in the direction they want it to go. Feel free to kill amateur radio as we know it. Make it better!



When he's not trying to figure out how to save amateur radio, Dan builds stuff, blogs about amateur radio at KB6NU.Com, teaches amateur radio classes, and operates CW on the HF bands. Look for him on 30m, 40m, and 80m. You can email him about what you think is killing amateur radio at cwgeek at kb6nu dot com.

Upcoming Regional Hamfests July 2018

July 14th: Mid-Atlantic Arc 2018 (Valley Forge) Hamfest

7am to ? at The Kimberton Fire Co. Fair Grounds; 762 Pike Springs Rd. (Rte 113) at Firehouse Lane, Phoenixville, PA. Website: <http://www.marc-radio.org/>

July 15th: Sussex County ARC- 2018-Hamfest 8am- ? at Sussex County Fairgrounds; 37 Plains Rd, Augusta, NJ. Website: <http://www.scarcnj.org/hamfest.html>

Alt. Editor's Note: This is one of the better hamfests in the region and well worth the long drive!

New Ham?

If you are a new ham or have been a ham for awhile and have any questions regarding amateur radio practice, technical questions or need how-to advice, please send your questions to: **Elmer at sjra dot org**. The SJRA has over 100 members with a variety of experience in all aspects of Amateur Radio that are willing to help.

WORLDWIDE DISTRIBUTION



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(DX Clusters from page 4)

Coverage Area

Through all of this, one thing is clear. That is - the more hams that are sharing DX information, the better.

Someone recently said, "When I submit a spot, I don't see it on my favorite Internet site. Why?"

This ham received a response that said, "Your spots are only displayed on the node you're connected to."

In most cases, this is not true. In fact, if it were true, then it would defeat the purpose of all the advancements I referenced in the introduction about expanding the coverage area of the DX cluster system. Right?

Still, there are a couple valid reasons why a spot sent on a given DX cluster node would not be seen on systems on the Internet. One - the system could be filtering spots such that they were prevented from propagating outbound. Likewise, an Internet system that displays spots could be filtering spots inbound. And two - the DX cluster node that the spots are being sent from are not connected to any peer nodes.

The latter is an important point to consider. That is - if you're connecting to a DX cluster node that is not connected to any other cluster nodes, then it's no different than the original VHF cluster systems that only propagated spots to local connected stations. It's only slightly better than "the two-ringer."

I hear hams say, "I connect to my buddy's DX cluster node." Okay, wonderful. How many peer nodes is he connected to? How many users connect locally? How many are connected across the system? Is his DX cluster node running on a server that employs high-availability methods to make sure that it's always available?

Does it matter? Absolutely! If you're connecting to a DX cluster node that is not connect to other peer nodes, then you won't

receive spots from outside that node and no one will see the spots you're sending.

Coverage area of the DX cluster system you connect to is the PRIMARY concern. The secondary concern is availability.

Some hams tell me, "I have no idea what DX cluster to connect to. So, I randomly connect to various clusters to see what spots other clusters have to offer."

Okay. This is only necessary if either (a) you're connecting to clusters that are not connected to many peer nodes or (b) you have no idea how all this works.

Let me save you some time and effort.

Selection

So far, we've identified two important things to consider when looking for a DX cluster node to connect to - peer node connections and node availability. I would go so far as to say that the first item is "significant peer nodes." That is - there's less benefit to connecting to 24 peer nodes that have five users in New England and being connected to 24 peer nodes from around the world that had several thousands of connected users. After all, this is "crowd-sourcing." We need to maximize the crowd.

In order find a "well-connected" cluster, there's a website that you may want to consider. Go to <http://www.hamcluster.net> and you'll see a map of the world (screenshot on page 9). Most of the time, it begins in Italy. Drag the map to your area of the world. Find a cluster node that's near you or looks familiar. Click it (once). What does it say? How many "links" (peer nodes) does it have? How long has it been up without failure?

Part 2 Continued in a future Harmonics

(Meeting Minutes from page 3)

Repeater, by Ken, K2WB. The two Township Attorneys were missing from the meeting Ken and Joe attended. There has been no response from those attorneys as yet. The plan is to run the 440 repeater to the 2 meter antenna.

Radiosport; Field day 6/23-24; 7/2-8: 10-10 International Spirit of 76 QSO party; 7/14-45 IARU HF world championship; 7/21-22 North American QSO party & CQWW VHF contest.

Trustee; Ken K2WB, no problems, will distribute copies of the new license to all net controls.

Health & Welfare- Birthday list to go out shortly.

Programs- W2JAZ- no changes, a webinar for Ham Radio Deluxe is a possible new program.

VE Team; All reports are at least one month behind due to Harmonics deadline. New location and date starting in June-

(Continued on page 10)

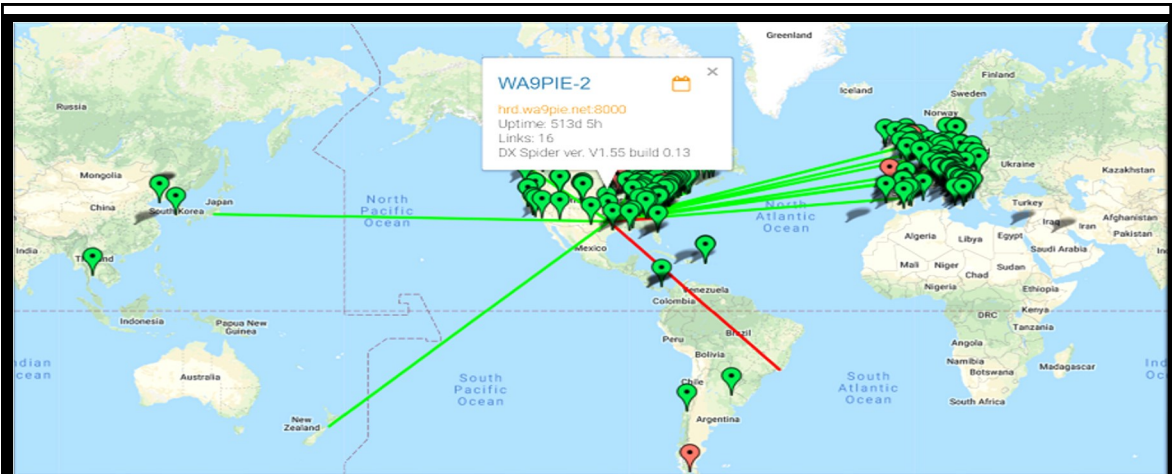
Test Session Report for May 9, 2018

The SJRA would like to congratulate the following on their recent Amateur Radio licensing achievements:

(Please note: Test Session Reports are published in Harmonics the month after the test session so we can publish passing technicians newly assigned call.)

Kasey Adamsky, KD2PVJ
 4 Juniper Ct.
 Blackwood, NJ 08012
 Passed her Tech

	Tech	General	Extra	Total
To Date	143	61	35	239



DX Cluster Map

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 \$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 third Wednesday of each month, except Nov & Dec are current 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 7:30PM. 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.

June Meeting:**Is the Fourth Wednesday, June 27, 2018**

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 June:

Field Day Wrap up by Ken, K2WB

SJRA Member July Birthdays

July Birthdays are: Don Beaulieu, WA2DUE; John Doran, W2FDJ; Michael Davis, KB1JEY; Craig Henning, NC2H and Carol Hutkin, K2BL.

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

July Meeting:**Is the Fourth Wednesday, July 25, 2018****First Class Mail**

South Jersey Radio Association
15 Pelham Road
Marlton, NJ 08053

