



HARMONICS

1916

South Jersey Radio Association

2016



HAM TECH

Vol 7 No. 8 by John - WY2J

wy2j at arrl dot net

Ham Tech Retires

Introduction - For the past six years, 72 issues, Ham Tech and this author have attempted to bring the technical side of Amateur Radio to the readers of Harmonics. My targeted reader was the younger hams who may still be exploring career opportunities in the STEM or Science, Technology, Engineering and Mathematics world or just had a curiosity to explore how Ham Radio worked. At the same time I didn't want to bore the more senior ham who's primary interest may revolve around the operations in the hobby.

Author's Background - I was first licensed as WN3TNM at age 15 in 1951, built my first CW station from a mix of modified WW-2 surplus and home brew. This spark of interest in the electronics field drove me to Penn State where I got my EE degree at age 22 in 1958. I then had a one employer 42 year career in Radar Design Engineering and Engineering Management at RCA, GE and Lockheed Martin.

GE bought RCA in 1986 and Jack Welch sold the Defense Division of GE to Lockheed Martin in 1993. During my working years I had no time for ham radio and my license expired in 1967. A few years after retiring I started longing to play with the electron

again so I showed up at the VE testing station in Bellmawr one night prepared to take the Code, Technician, General and Extra Class tests. After passing everything through General the VE team asked me to come back next month because it was 10:30 PM and they wanted to go home. I got the Extra a month later with a grade of 98 percent and the team invited me to join their VE team. I declined, testing wasn't my bag, but sharing my technical knowledge and motivating young people into the STEM world is. A few years later HAM TECH was born.

The Author's Observations - Having gone through the licensing process twice separated by a little over 50 years, the second time was an eye opener for me. The electronics technology has exploded in the last half century but what one has to know to pass each test has diminished. Has ham radio been eclipsed by something else for the young individuals entry path into the electronics world? I don't think so because there is nothing to replace it. You sure don't learn how radio waves propagate, antennas radiate, how to design circuits, understand modulation theory and etc by pushing a few buttons on an iPhone. This lack of technical knowledge of how ham radio works is what drove me to create Ham Tech.

The Rules - When you write for most publications there are usually a set of author rules that your manuscript must meet to be pub-

(Continued on page 4)

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
 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 Mac Millan, W2MC
Treasurer: Ray Golley, N3RG
Rec. Sec: Lou Priestley, N2HQL
Cor. .Sec: Dennis Cioffi, AC2FO

Directors:

Roy Herman, WB2EOD
 Rich VonLintig, KV2R
 Rick Lawn, W2JAZ
 Ira Weinstein, W2IRA
 Tony Canuso, N2ATB
 Ted Dean, KD2ARD
 Al Witner, N3AVT

Committees:

Historian: Mark Walter, KD2JPW
Membership: Alan Handley, K3WWT
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 Mac Millan, W2MC
Web Site: Ira Weinstein, W2IRA

Harmonics Staff:

Publisher/Editor: Ted Groke, W2TAG
Alternate Editor: Rick Stoneking, W2RDS
Circulation: Mary VonLintig, KV2M; Jim Vecchiola, KR2T

LOCAL WEEKLY NETS

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

Harmonics Deadline

Articles submitted for the next Harmonics will be accepted until Monday, September 12, 2016. 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

General Membership Meeting-July 27, 2016

The meeting was held at the Gibson House, opening at 1940 by Ken, K2WB, who stated that he visited the Superstition Radio Club (Arizona) again. There were introductions around.

Minutes of the June meeting were approved as printed in Harmonics. Motion by N2HQL/N2ATB.

Trustee Report: 114 paid members, \$450.00 from sale of the donated radios.

New Members: Al Ziegler, KD2LVT; Bruce Canio, KD2LBU; and John, K2QA.

Repeater: "Its repeating" Joe, KC2TN, has reconnected the antenna for the node. Club Stuff: all available, cups, patches, magnets, etc., most anything can be made with the Old or New Logos.

Historian, Mark, KD2JPW: we have had three newspaper reports concerning the centennial celebration. The Centennial Celebration is Saturday, from 11-3.

Joe, K2WJL, has donated some items to the club for sale. A quick auction was held and the cash turned over to the Club Treasury.

VE Report- 175 tests administered so far.

Recess at 2020, resume at 2030.

Field Day presentation: No Kenny's this year. Band Captains were introduced and thanked for their hard work. Special thanks to the GOTA Ops. Rich, KV2R, gave the bonus point report. Domenick was introduced and thanked for a spec-

tacular menu. A new dvd was played, in a new style from this years field day.

Board of Directors Meeting- August 3, 2016

Meeting opened at 1931 at the Gibson House. Minutes of the July meeting were approved with a slight correction- the mobile radio donated was a TM 741, not a TM 241. Motion N2HQL/AC2FO, motion passed.

Ray, N3RG, made the treasurer's report. No new members were proposed.

Contests: Ken showed the plaque from "Atlantic Division winner, Multiop, low power to K2AA for Nov SS, CW 2015, sponsored by ICOM. A discussion was centered around the sponsors of award plaques for various contests. Al, N3AVT/Roy, WB2EOD, made a motion that SJRA sponsor a plaque through the ARRL for Class 6A for Field Days, at a current cost of 75.00 per year. It was felt that this would give SJRA some recognition. The motion passed.

Contests Upcoming: Sept 10-12 VHF contest. Sept 17-18 NJ QSO party

Historian: Displays at the Banquet were nice, interesting and thorough. There are still eight boxes of documents at KV2R/KV2M residence. We will look into finding a public location (library, etc.) to show our history to the public.

Trustee: No OO cards received from Field day operations.

VE: Five people tested in July

(Continued on page 10)

(Ham Tech from page 1)

lished. For Harmonics there is only one rule, meet the deadline date for manuscript delivery, which varies month to month and is published in the latest edition. I couldn't live with this so I wrote my own starting with who is my reader and what is his or her education level. I chose a high school student with math skills of first year Algebra. I had an outline of topics covering one year, when I approached Ted, W2TAG, the editor of Harmonics and he said go. It took five issues before the numbering system for each issue was firm and a few more months before the size of each issue was standardized at about 1,000 words and two to three photos or graphics. I chose to format the manuscript into two columns like Harmonics is published with all photos and graphics inserted to assure proper sizing. It took some time to determine the Word version (2003) that would translate into the club's old MS Publisher software with a minimum of errors. Still sub and super scripts used with equations required final proof reading and occasional correction. This did not happen with the first two or three issues of Harmonics and the paper copies contain equation errors. These need to be fixed before they are ever reprinted in the future, a distinct possibility.

What Ham Tech Covered - There were 72 issues of Ham Tech starting with the September 2010 Harmonics and ending with this issue in August 2016. The first issue was a non-technical introduction to Ham Tech followed by 70 technical issues and this closing one. A particular subject or topic was organized into one to three consecutive issues.

Some of the subjects or topics covered included:

- ◆ Propagation and Analysis Tools
- ◆ Antennas and EZNEC Tools

- ◆ Transmission Lines and SW Tools
- ◆ Antenna Tuners
- ◆ Simple L/C Filters
- ◆ Crystal Filters & Design Tools
- ◆ Modulation, AM, FM, SSB and Digital
- ◆ Demodulation of all types
- ◆ DSP including Complex Arithmetic
- ◆ RTTY, PSK-31, MFSK and Other Modes
- ◆ Vacuum Tube History and Graphical Methods of Design
- ◆ AM - Ham Radio's First Voice
- ◆ AM to SSB - A Technology History
- ◆ Morse Keyed CW, QRP and Other Topics

Why Retire Ham Tech? - When I started the column in September 2010 I expected it to run for about two years before I would be out of ideas and material for it. Not so and two years went to three, four and finally five. At this point SJRA was busy planning for the 100th Anniversary of the Club and I got the idea to write three Technology History Columns covering the most significant technology over the 100 year life of the club. I chose the Vacuum Tube, which got us off spark and on to CW telegraphy; AM, which gave ham radio its first voice; and the technology transition from AM to SSB, which allowed the computer sound card modes of today. This added a year to the life of Ham Tech.

I have always believed that if one does the same job for over five years he becomes stale and the work suffers. This is especially true of authors and the work they produce. I have company in this belief. The writer of the great PBS series Downton Abbey killed it after six years, its peak in popularity, for the same reason. And each season only included nine performances.

(Continued on page 5)

(Ham Tech from page 4)

The second reason for retiring Ham Tech is that the author has had wet macular degeneration of the retina of the left eye for over seven years. Fortunately treatment has been successful to date but there is no cure. Without continuing successful treatment the end game is permanent blindness. A few months ago the same problem developed in the right eye so I am in treatment for both today. I cannot sign up for long term writing work anymore. And third I turned 80 last May and have other ham radio interests that I want to explore before there is an (SK) after my call sign.

The Future of Ham Tech - This author would like to see Ham Tech or a similar column continue to appear in Harmonics in the future. I believe it fills a needed role in the development of new hams. It is also a very rewarding job. For me the rewards included: 1) A Miles Brown Technical Excellence Award in 2013, 2) Several commendations from club members including Dr. Joe Taylor K1JT in 2015 and 3) A SJRA Recognition Award for Ham Tech received at the 100th Anniversary Banquet in 2016.

But Ham Tech needs a new author, one with fresh ideas to keep it vibrant and relevant. There are many technical topics that I did not cover in my six years at the helm and I am sure there are at least two or three individuals in the club who have the technical background to continue to write it. Give it some thought, step up and give Ted, W2TAG a call Otherwise you may get reruns of my work as Ted has a big hole in Harmonics without Ham Tech.

73, John WY2J

5_4_3_2_1: Readability Reports

Dan, KB6NU, cwgeek at kb6nu dot com

I'm big on Twitter. It connects me to a lot of interesting amateur radio operators, and I find a lot of food for thought there. Yesterday, I saw the following Tweet:

Charlie - M0PZT @M0PZT

Blog updated: RST and Speed Matters
<http://www.m0pzt.com/blog/rst-and-speed-matters/> #hamradio

Being a CW geek, of course I was interested. Charlie's point is that if you get a bad report, you probably should send more slowly. I certainly have no argument with that. What I do take a little bit of an issue with is that Charlie says, "A Readability 4 report should really make it known that information needs to be brief, but repeated - Certainly no ANT/RIG/WX waffle!"

According to most sources, Readability 4 means, "Readable with practically no difficulty." When I receive an R4 report, I might slow down a little, but it doesn't mean to me that I have to cut the contact short or repeat information over and over. I replied on Twitter that if the operator at the receiving station is having so much trouble copying, then the report should probably be 319 or even 219.

Of course, RST reports are open to interpretation. With that in mind, I thought I'd explain a little more fully how I decide what Readability report to give:

R5: Perfectly readable. To me, this means that copying a signal is no work at all, and that it sounds like it's coming out

(Continued on page 6)

(5...4...3...2...1: Readability Reports from page 5)

of a code practice oscillator. I can put my feet up on the desk or putter around the shack while I'm ragchewing with the other operator.

R4: Readable with practically no difficulty. "Practically no difficulty" is the key phrase here. There may be some QRN or QSB on this signal, and I have to pay some attention while copying. An R4 is still solid copy, though, and ragchewing is definitely possible.

R3: Readable with considerable difficulty. A signal that rates an R3 needs my full attention. I have to work at copying the signal, and even then, might miss characters here and there. Even though I don't copy every single character, I'm able to fill in the gaps. An R3 signal might not be good enough for a ragchew, and repeating information is probably a good idea.

R2: Barely readable, occasional words distinguishable. A signal that rates an R2 is usually so weak that it's below the noise level or drops below the noise level occasionally. At this level, the contact will definitely be brief and any important information, such as the callsign needs to be repeated.

R1: Unreadable. Generally, I would never give out this report, as I would never attempt making contact if a signal was truly unreadable.

Although my explanations above reflect the fact that I'm primarily a CW operator, I think they also apply to phone or even digital contacts. For example, an R5 for a phone contact would mean that the signal sounds like it could be coming from

(Continued on page 10)

Monthly Puzzle

Don – WA2DUE, wa2due at arrl dot net

Reviewing last months puzzles:

Two AC circuits are connected in series, one with an impedance of $3 + 5j$ ohms and the other with an impedance of $2 - 4j$ ohms. Find the total impedance and the current if the total voltage across them is 110 Volts.

Answer: The total impedance is the sum of the individual impedances. Thus $5 + j$ ohms. To find the current we divide the voltage by the impedance $110/(5 + j)$. Rationalize the denominator by multiplying by $(5 - j)/(5 - j)$ and we get $I = (550 - 110j)/26$ or $I = 21.15 - 4.23j$.

A bowlers average score for three games is 162. In the second game his score was 10 less than the first game. In the third game his score was 13 less than in the second game. What was his score in the first game?

Answer: First let us designate the first, second, and third games as A, B, and C respectively. The average is $= (A + B + C)/3 = 162$. We find $A = B + 10$. $C = B + 13$. Therefore $C = A - 10 - 13$ or $C = A - 23$. The score for each game in terms of the first game is $(A + A - 10 + A - 23) = 486$. Summing liked terms $3A - 33 = 486$ or $3A = 519$ and $A = 173$.

For August let us consider these puzzles:

Art can cut a cord of wood in 7 hours and his daughter (being much more energetic) can do the same in 5 hours. If Art starts at 8AM and his daughter joins him at 10AM at what time will they finish cutting this cord of wood?

(Continued on page 10)

Test Session Report for: August 10, 2016

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

Ross Kessler
848 Moyer St.
Phila, PA 19125
Earned his Tech

Michael Vagi
328 Sapling Way
Atco, NJ 08004
Earned his Tech

Dennis Colasurdo Sr.
2 Winslow Dr.
Hammonton, NJ 08037
Earned his Tech

Brody Eller
2 Heritage Hill Dr.
Sicklerville, NJ 08081
Earned his Tech

Babak Javadi, KC3DKN
4036 Spring Garden
Suite #2
Phila, PA 19104
Earned his General

	Tech	General	Extra	Total
To Date	107	48	25	180

For Sale

Generator: 6.5 HP, 2800/3300 Watts
Only fired up once a few years ago
and it worked at that time.

Over \$300 invested but sale for \$200.
Contact: Slep, W22LKO
mrslep@comcast.net

Scenes From 100th Celebration



The Cake



Past and Current SJRA Presidents in Attendance (L to R):

Pat, KD2P; Jon, W2MC; Shawn, W2SMD; and Ken, K2WB



The Room

President's Message

Ken – K2WB

The summer is going to be over well before we know it. Field Day 2016 is over and good memory. Some of us are already we are looking forward to Field Day 2017.

The 100th celebration is over, it was truly wonderful, thanks to the history committee and their hard work. In the lobby you could literally stand in the center of 100 years of our history. We had a WebEx with our friends in Ireland in addition to several special guests from the ARRL and the State of New Jersey Assembly. It was truly a moment in time to remember. Congratulations to the winners of the door prizes. Special thanks needs to go to Jon, W2MC, who put together the 1st addition of the 100th anniversary book. The final addition will be available sometime later in the year.

I want to also thank the 100th Anniversary committee for their hard work to make this all happen. Scoring of the QSO will begin shortly so stay tuned.

As the summer draws to a close, you should look carefully at your antenna farm and it may be time to start planning on any improvements or repairs that could be done while the weather is still pretty good.

While working on your projects always think of safety and get assistance for big jobs. Use the right tool for the right job and never climb a tower without the spotters, climbing gear and ground help.

Bring a friend to a meeting, SJRA meetings are a great night out, we even offer great programs to keep you entertained. Let Mario, N2AK, know if you can join us for dinner at Tarantella's restaurant the following the group to the meeting at the Gibson house in Marlton. We have about 120 mem-

bers and growin Let's see if we can get to 200!

If you have any ideas or projects that you would like to see the club get involved with, contact any board member or club officer.

Enjoy the rest of the summer and I hope to see you on the air soon

100th Anniversary Happenings

Ken – K2WB/100

So far the 100th anniversary committee has had 23 meetings and this meeting coming up in August looks like it will be our last since most of the 100th activities are done. I like to thank all of the members of the 100th anniversary committee for their help and support over the last 2 years. There are some loose ends to tie up.

The banquet was a huge success, it was great just seeing everyone. Mark, KD2JPW, and Rich, KV2R, put together an awesome exhibit demonstrating our first 100 years of being a radio club. It was the place to be at the end of July.

The SJRA was presented with a plaque from the ARRL commemorating our 100 years, the State Assembly presented us with a proclamation from the state of NJ, another proclamation from the Governor of the State of New Jersey and a congressional proclamation. It is nice to be recognized.

The door prizes were great, food was great and the members and guests.

Logs and QSL cards are coming in slowly for the SJRA QSO party. It was a lot of fun, getting on the air.

(Continued on page 9)

(100TH Anniversary Happenings from page 8)

Joe, KC2TN, is still selling 100th Anniversary clothing and hats, in addition he has patches. Contact Joe should you want to have the “New” SJRA Look.

The Web Team needs help with content for our history time line. Please contact Rich, KV2R, if you would like to help.

Jon, W2MC, is working feverously in putting together our 100th Anniversary book, look for the 2nd edition...

Please email me your picture showing your SJRA!! Email them directly to me ken at k2wb dot com. Go to our web site to see where the SJRA logo has been.

Also, we are looking for old SJRA photographs. If you can scan them at the highest possible resolution. If you need help we could scan them for you so that they can be included on our website for all to share.



Items for Sale

50 Foot Free Standing Tower (not heavy duty). Tower is on the ground in two pieces that bolt together at the 30 foot level. \$100.

All proceeds from the sale of this item will be donated to SJRA.

Contact Ted, W2TAG
 Tabernacle, NJ
 ted.w2tag at gmail dot com
 (609) 268-8460

List Your “For Sale” Ham Stuff in the SJRA Harmonics

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

PRINTING • DIGITAL PRINTING • WIDE FORMAT OUTPUT • LAMINATION • MOUNTING

PRINTING

SANDOVAL
 Graphics & Printing L.L.P.

(856) 435-7320

9 Minnetonka Road • Hi-Nella, NJ 08083
 printing@sandovalgraphics.com

Congratulations to South Jersey Radio on your Centennial

EMBROIDERY • SILK SCREENING • PROMOTIONAL PRODUCTS • COMPLETE GRAPHIC DESIGN • H-RES

FILM OUTPUT • OFFSET PRINTING

(Monthly Puzzle from page 6)

A rectangle has a perimeter of 34 feet. The length of a diagonal in this rectangle is 13 feet. What is the length of its sides?

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

I guess our 100th celebration last month prevented everyone from working out Don's puzzle so lets all try out the puzzle this month and send Don our results.

ed, W2TAG



100th Celebration Poster Showing Decades of SJRA Activities

(5...4...3...2...1: *Readability Reports* from page 6)

just down the street or coming through the local repeater.

What do you think? How do you decide what Readability report to give?

.....

Dan, KB6NU, is the author of the "No Nonsense" amateur radio license study guides, and blogs about amateur radio at KB6NU.Com. You can contact him by e-mailing cwgeek at kb6nu dot com. If you want an honest Readability report, look for him most evenings on 40m CW.

(Meeting Minutes 2016 from page 3)

Web: pages have been updated, including Fusion information on the repeater page. Next up: buttons for award nominations and membership renewal form.

Harmonics: John, WY2J, has retired as a regular columnist. A new column or other filler will be needed (Volunteers anyone?). The printer and HRO, who helped a lot for the centennial, were given a business card size ad for 1 year in Harmonics (Ad space is always for sale).

There was some discussion regarding reprinting some older Harmonics content (25-75 years ago)

No unfinished business.

New Business: Roy, WB2EOD, brought up the subject of a possible "clubhouse/station" for use of members who have restrictions or just no station. Discussion covered the obvious positives, and many negatives- rent, security, maintenance, etc. The discussion was dropped for lack of money (the club budget would have to increase greatly) and lack of possible location. Ken stated that "T3" was as close as we could come- it is normally made available for club operation during major contests.

Centennial banquet is complete and finished slightly over budget.

A discussion regarding location of the Holiday Party was held, The Gibson House was suggested as the ideal location. Caterers are still unselected.

Field day is 324 days away (at that night).

Adjournment at 2105.

Lou, N2HQL, Rec. Sec.

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 \$20 (*New Lower Price*, 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 *at* SJRA *dot* org. A calendar and more information can be found on the SJRA web site.

August Meeting:

Is the Fourth Wednesday, August 24, 2016

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 August:

Matt, N2IDW, presents use of the SDR Play Receiver

SJRA Member September Birthdays

Donald Cavallaro, KD2EHE; Alan Cohen, WA3ZKI; Matthew Grohgans, N2IDW; Alan Handley, K3WWT, Craig Martin, N2ASU; John Mulvey, N2ADE; Dominic Sacca Jr., KD2EPM; and Michael Tolotta, W2OSD.

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

Ride Needed

We have two members who need rides to our meetings. If you come from or go through Mount Holly/Lumberton or Medford (near the Library) please contact me ASAP!!!

Ken, K2WB

Ken at k2wb dot com

First Class Mail

South Jersey Radio Association
PO Box 1026
Haddonfield, NJ 08033

