

K7LED RELAY

50 Years of Service 1970- 2020

Vol. 49, Issue: 4

Mike & Key Amateur Radio Club - Seattle

April 2021

Later in this Issue:

7th District QSO Party	2
John Rehnstrom WA7HQG- Silent Key	3
Celebrating April Members	4
A Remembrance of Little John	4
Tip for the Month	4
Earth-Sol QSO Party	4
A Look Back – The Mike and Keyer	5
Once Upon a Rainy COVID Day	6
Around the Shack	7
Do not let HF go gently into the night	7
General Meeting Minutes - March	8
Board Meeting Minutes – April	9
A Look Back	10
The 2021 List of Club Officers	10
Calendar	11

Welcome New Members

Tim Barry - KJ7TJE

Holly Eggleston -
W6HCE

Christian Helfrich -
K7XTN

Erik McClenney - K3ER

James McQueen -
KJ7DNG

April Mardock -
KI7QFV

William Ridge

Our Growing and Thriving Club

Phillip Pia, K7PIA – President

Hello to all of my fellow Mike and Key members. I am blessed and honored to have earned your trust to become your new President.

Many congratulations are also in order for our newly- and re-elected Board members. I am excited to work with this year's Board to continue our Club's successful mission of serving the amateur radio community here in the Puget Sound.

To our departing board members – David Yarbrough WA7DY, James Wraalstad WQ7H, Scott Robinson AG7T, and Robin Carter WA7BRI; the Club also thanks you for your service and dedication.

In these challenging times, I have noticed that interest and engagement in the Club (albeit mostly virtual and “on-the-air”) has now become even stronger, a very encouraging sign and something to be grateful for. With daily social and weekly technical nets on our repeaters, daily Zoom ragchews and discussions, very high attendance at our virtual general meetings, a solid online presence, and many new membership applications (as many as nine in one month recently), our club is set to robustly grow and thrive in the future. Many thanks to all who have made this possible.

Stay well, enjoy the spring weather, and please don't hesitate to reach out to me if you need anything at: president@mikeandkey.org.

73 es gud DX de Phil, K7PIA

7th District QSO Party

Michael Dinkelman, N7WA

The 7th District QSO Party (7QP) is the first weekend in May, Saturday the first. I don't know about you, but between spring fever and the pandemic, I am clamoring to get out on the road. The fact that the sun is shining outside while I write this only makes it burn more. Fortunately, this is an acceptable socially distanced type of activity.

During this contest, the entire United States 7th District is the target for the rest of the country and even the world. Those outside the district are looking for Hams and counties (all 259 of them) in the 7th district. Those inside the 7th District can work anybody. Some of the 7th District counties don't even have Hams living in them so participants make the effort to travel and operate from them. You can still have fun working from King, Snohomish, and Pierce counties, but you most likely won't be a multiplier for the person working you.

Now, if you enjoy RVing, this is an excellent chance to combine two of your hobbies. Many will be running mobile through a number of states and counties during the 18-hour period of the contest. I have heard from several folks over the past several months who have started down the path for mobile stations.

Even with the screwy propagation of the past year, there will be plenty of activity on 20 and 40 meters, most likely these will be the money bands. Phone, CW, RTTY, and PSK are allowed. (Sorry no FT8 because it doesn't support the 5-character county ID's.)

Activity is enhanced by the New England QP, the Delaware QP, and the Indiana QP running the same weekend. The New England QP is similar to the 7QP by being a regional test for a group of states. Some Computer loggers (N1MM) will even allow you to send in a log for all the tests. You don't have to enter their counties for the N1MM exchange but you might have to extract the state from the sent information.

Be aware the New England QP stations use CTY/ST identifiers while 7th District QP station use ST/CTY.

If this interests you, check out the rules at the [7QP website](#). You'll also find a list of every county in the district and a list of planned operations.

There is an entry category for distributed multi-ops this year (see the rules). You must be in the same county but you could join with some friends for a socially distanced multi-op. I do plan on going to Eastern WA this year after staying home last year. I'll try to get my schedule out on the email list just before the test.

Happy Anniversary Mike and Key



The K7LED Relay is the official monthly newsletter of the Mike and Key Amateur Radio Club (ARC). The Mike and Key ARC is an ARRL affiliated club dedicated to the growth and betterment of Amateur radio.

The club temporarily meets virtual at 10 AM on the third Saturday of each month. Anyone interested in Amateur Radio is invited to participate in the club and its activities.

The annual Mike and Key ARC dues are \$12 for individual and \$18 for families.

Send dues to:

Mike and Key ARC, P.O. Box 4234, Renton,
WA 98057-4234

John Rehnstrom "Little John"
WA7HQG- Silent Key
 Steve R Rehnstrom, KE7KRT

My earliest recollection of Dad's involvement in amateur radio was his clandestine meetings in trailers with a decidedly dastardly group called the Rebels. This somehow led to "The Mike & Key Club", which then led to a long procession of glowing tubes and ozone from his Lafayette HA-460, Swan 250 (Drifty) and Drake TR-6. What I originally thought was a trophy he would talk to, ended up being an Astatic D-104 microphone.

In the late 70's, I had the misfortune of a broken femur which led to my being home on crutches and invariably out in the ham shack watching Dad work seemingly non-stop openings on 6 meters to Japan. I also learned that his old black and white TV tuned to "snow" would occasionally produce a picture, cueing him in to the band opening in Hilo, Hawaii.* Now I was hooked!

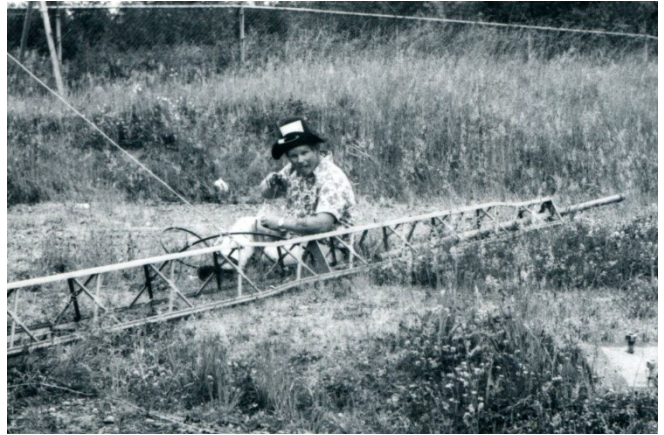
An avid experimenter, he would build his own VHF antennas and chili (both with tremendous results). Field Day, Fox Hunts, McMicken Heights auctions, breakfast at Cyndy's House of Pancakes, Santa Talks at Children's Hospital, Seafair Parades, Country Store, he enjoyed all of it. Did I mention Field Day? Bug spray.

Dad thoroughly enjoyed his many friends and family in Mike & Key ARC in his 50 years of involvement.

It is with great sadness that I relate Little John passed away comfortably on March 16th. Any remembrances are requested to be made by donation to the Mike & Key ARC in appreciation for all of the great work done for the community and wonderful times shared.

KE7KRT, Harmonic

[*Editor: Snow is white noise on an analog TV screen. The Analog TV Channels, were in the low VHF band. For example, channel 2 is about 54 MHz - near our 6 meter band. If the audio and/or a fuzzy to sharp picture showed up on the TV it indicated there was an opening on 6m.]



1973 – Cougar Mountain Field Day



2013 – Field Day



2013 – Field Day

Celebrating April Members

Jim Kiniry Jr., KE7JIM

Congratulations to the members having Mike and Key anniversaries this month. Thank you for your participation and service. Each of you makes us who we are.

Name	Call Sign	Years
Jan Hart *	WA7HWX	49
Tim Schneebeck *	K7QMI	44
Carolyn Pasquier *	WV7Q	34
Ryan Martin *	N7TNI	29
Darla Harris *	KC7SIT	25
Gary Bryan	KG7KU	20
Joyce Baskett	KA7VXN	17
Michelle Baskett	WA7PVE	17
Douglas Johnson	KD7RIK	17
Philip Sheridan, III	KE7HAV	15
Tom Stevens	KE7ZMJ	12
Howard Hultgren	KE5OEZ	9
Michael Jacobs	K7MCJ	9
Morgan Pasquier	KF7YGS	8
James Kiniry, Jr	KE7JIM	6
Juan Zapata	KF7TTO	5
Carlin Faultersack	KF7TAX	4
Jamie Fenton	KI7IWP	4
Kenneth Jones	KB3JA	4
Sara Perrott	KG7EOT	4
Scott Gilyeat	KC7SAG	3
Hal Itzkovics	W2KVQ	3
Greg Truchot	KI7ETS	3
David Okrent	W7DAO	2
Deb Adeogba	KI7TYF	1
Martin Calsyn	KJ7MC	1
Rosan Gilyeat	K7RMG	1
Brian Hoglan	KI7MVM	1
Mike Intlekofer	K7MJI	1
Jason Nierenberg	KJ7GLB	1
Vincent Stoneking	KD7RAE	1
Ted Williams	KJ7KPI	1

*Life Member, 25 more years with the club.

Tip for the Month

Want to adjust your mic gain, equalizer, and ALC? Use www.websdr.org and find a radio that can hear you. Then run a few "[Call Sign] – Testing 1, 2,3, 4, 5 – 10. Call Sign" and check out how you sound. Remember there will be some latency. Also, in addition to pskreporter, you can find out how well your signal is getting out.

A Remembrance of Little John

Bill Balzarini, KL7BB/K7MWC

I had enjoyed many contacts with Little John on the six meter, 50 MHz VHF band. First on AM at 50.4 megacycles in the early 1970's and then later through the years on SSB at 50.110 MHz USB during many Sun-Spot-Cycles and Sporadic E openings that took us all on magical RF-rides with the earth's sky-to-far away exotic DX locations.

Some times just to the East Coast of the America's, and other times out to the Islands of King-How-6 and contact with Bola KH6BB. Then the excitement of working the frozen far north – Alaska and some times into Asia, gave us a lot of things to talk about over the many years. Especially on how to build better six-meter beams to work more VHF band openings that are fast, quick and short. Some of his homebrew 6 meter beams are still in use around the greater Pacific Northwest.

In later Years, 1982-on, he was the jolly face of the Mike & Key Flea-Market's Little-Old Country Store; "Shop-Keeper of Stuff and Unique Treasures." Deals were made by the thousands, both over the table and some by other "mysterious ways and means." His vast knowledge of our ham radio equipment allowed him to "sell the magic of the sizzle" to every ham young and old. He kept everyone interested and delightfully happy, with their new found pieces of ham radio joy.

He will be Missed.

Earth-Sol QSO Party Date Announced

Helsinki – The Amateur Radio Federation of the Sol System (planets, planetoids, and recognized space stations) have released the date for the 2022 Earth-Sol QSO Party. The event will take place on April 1, 2022 at 00:00 Earth Zulu through 18:00 Zulu. The party includes all regions of the Sol system through the Kuiper Belt, sorry Ort Cloud stations. Rover stations are encouraged.

Stations may use any frequency above 50 MHz and any power levels or antenna designs. Gravitational field and quantum entanglement modulation are excluded for this event. Logbooks may be submitted up to April 1, 2322 in keeping with transit times. Viking contacts are extra points.

A Look Back – The Mike and Keyer

Michael Dinkelman, N7WA

David, our newsletter Editor, has been putting some interesting tidbits in from the *Relay* archives. The one from last month hit close to home. I thought I would provide “the rest of the story” though I expect if you were a member during that period, you would already have it. This is for the members who haven’t been around for 20 years.

David shared a past Relay article about the first mention of a keyer project back in 1987. The Mike WA7UVJ, is me, now N7WA, and I was a member of the Club for only about two-years at that time. The project was to be a memory keyer with a display you could personalize with your own call and lots of memory.

I was pretty familiar with the Z-80 so that was the basis of the design. Two-line LCD displays were just getting popular and cheap enough for hobby use. I did the programming on a Commodore 128 which could be booted into a CP/M machine to do the software. I wire-wrapped the prototype and I think it’s still in a box someplace in the garage. I used it for many years as my personal keyer, only replacing it after it started becoming intermittent (wire-wrap!). Of course, there are keyers on a chip these days that do way more.

I designed my keying so it wasn’t straight-jacketed to strict dot-dash ratios. If you had a bit of a *swing* to your keying, it would program and play back that way. I did search for pictures but I can’t even remember if we had digital photo’s back then - I expect not.

I ask the ARRL if they wanted to publish it in *QST*. They came back with a no. Instead, they wanted to publish it in the *ARRL Handbook*. That was a lot more work than anticipated. I had to hand draw the entire schematic (no CAD) and they really wanted a PCB board available. Fortunately, another Club member Ray Leslie WA7EKH was wanting to get into PCB layout and he did a great job of creating one. He also came up with a parts kit. I don’t think he ever made any money off the deal but he did sell a few.

It ended up in the 1989 Handbook plus a few more years afterwards. I had to give it a name. I came up with the *Mike & Keyer*. It was a lot of fun but it did chew up a lot of spare time for about a year. Seeing how that period of my life was spent working at a startup, there wasn’t much spare time to begin with. Fortunately, working at a startup also afforded me access to tools I would not normally have had available.

A number of years after publishing the design, I got a letter from a Ham in Europe. He was using the keyer for meteor scatter. You could program a memory at regular speeds, then crank up the speed with just a pot until it wasn’t much more than a buzz. The receiving end would tape the buzz and slow down the tape to read the message. Of course, these days, computers and software make that easy.

I completely forgot about a lot of this until David inserted that tidbit in the *Relay*. I did find an unassembled Mike & Key kit in the estate of friend and fellow Club member Wayne K6DOW. That was a surprise because Wayne was never a CW guy. If anybody wants it, I can search for it (I think I kept it). However, I expect the EPROM is programmed for K6DOW.

Now you know the rest of the story. Oh, one more thing... I still say Golly Gee Willikers.

Mike & Key Amateur Radio Club Policy & Procedures #19

All member originated intellectual property materials created for or used by the "Club" shall be the property of the "Club" unless expressly agreed otherwise in writing signed by the President and Secretary. [Editor: This includes submissions to the Relay.]



Fight cabin
fever, join a
Zoom or Net
Meeting

Once Upon a Rainy COVID Day

David Okrent, W7DAO

Now making a quarter wave ground plane antenna out of coat hangers, 10 gauge solid wire, or welding rods and a PL259 connector are not new. It's often a right of passage for a newly minted Technician. Nor is using a metal electrical box cover with a [3/8" threaded stud and a SO-239 adapter](#) with aluminum tubing for a vertical and telescoping antennas or 10 gauge wire for radials new either.

The last one I built (years ago) could handle up to 50w. I cut 10-24 threads at the bottom of the tubing with a die and drilled a horizontal hole through the rod just below the tip. I could thread a string in the hole and pull it up via a tree branch. I had a tube for 2m and 70cm. Could I have made a roll up or metal dual band J-pole? Sure, but sometimes quick and simple is nice.

Well in Spring of 2020, during a rainy day and COVID isolation, I decide to go to the junk box and play. Figure 1, is one of two quarter waves antennas I made (it extends about 35"). Yes, I could have made the radials droop 45° for a better match if I had a different mounting set up. Inside the cap I used copper tape to connect the radials. I had some around from an earlier project.

Why did I make two? Consider a coax cable running 16" from the BNC of the first antenna to a T-connector and the other antenna connected to this fitting with 22" of cable. The third end of the Tee goes to the radio. This means the signal enters antenna #2 a little later than #1. The result creates gain board side to antenna #2. The power of a three-element yagi from two verticals.

I also decided it would be easy to take the telescoping antenna elements off and create a three-element yagi out of PVC tubing and couplers. Figure 2, shows the studs and the copper tape connection for the reflector and director. Figure 3, is the inside view of the driven element. By changing the distance (different size PVC tubing sections) I can use this for 2m, 1.25m, or 70cm. I could also use the same sections and add holes for 70cm at a right angle to the 2m holes to create a dual band yagi. Not bad for keeping idle hands busy. After I finished this project I found the three feet of 3mm threaded aluminum rod I could have used instead of the copper tape. Oh well, next time.

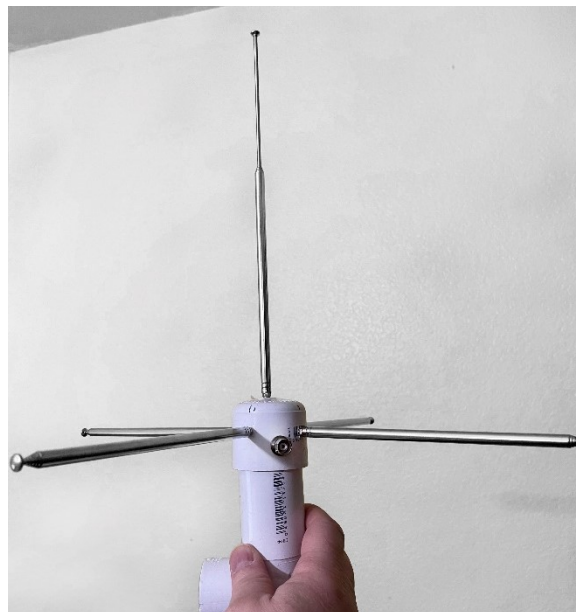


Figure 1, One of the ¼ wave antennas. Telescoping antennas are off ebay.

Figure 2, The studs are where the antennas screw on and the copper tape connects the two sides together

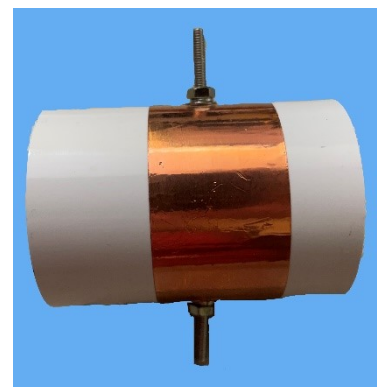
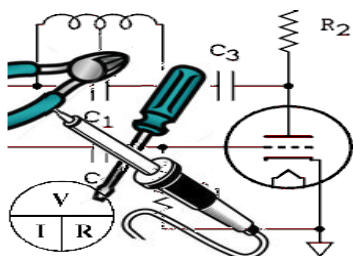


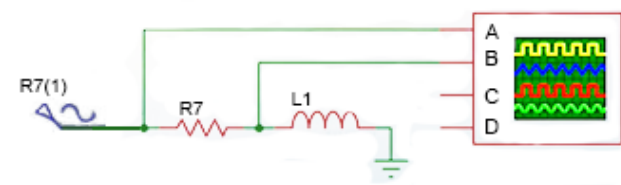
Figure 3, The PVC coupling used for the driven element. Coax from the radio connects to the short studs

Around the Shack

Dan Aalberg, KG7DAB



Love beads are one of the traditional accessories of hippies. Ferrite beads are one of the traditional accessories of hams.



This this month I am going to share a great YouTube video I ran across that helps identify that bin full of unknown type Ferrite cores you have, but don't have the courage to toss out.

The YouTube video is titled [“How to Identify an Unknown Ferrite Core.”](#) by Fair-Rite Products Corp.

For those of us that do not have *deep pockets* for super fancy LC meters, here is a great video from W2AEW (I'm subscribed to his channel) titled [“Measure Capacitors and Inductors with an Oscilloscope and some basic parts.”](#)

Another video that does the same test [“Measure an inductor, Without an LCR Meter.”](#) by Scott Card. He does a great job explaining it a little more simply.

I know this is definitely going to help me out and be a little fun at the same time. I hope it will be for you too.

Visit my YouTube channel [“Around the Shack”](#) and please feel free to comment. Don't forget to Like and Subscribe!

Until next month...
73, Dan - KG7DAB

Image from Scott Card's video

Do not let conversations on HF go gently into the night

David Okrent, W7DAO

With apologies to the late Dylan Thomas.

Do not let HF conversation go gentle into that good night.

Ham activity should burn and rave at close of day, not just on contest days.

Rage, rage against RF noise and HOA restrictions.

Though some hams have given up and moved exclusively to FT8;

Some of us will not go gentle from our SSB and CW modes.

Nor will we abandon our phone allocations. But shall continue to call CQ – a welcoming campfire for a searching stranger.

Good hams, continuous waves, calling out so bright.

Their power levels might have danced in better indexes.

Rage, rage against the empty bands.

Rag chewing hams who caught the sun and sang,

And learned to create friendships on a wave, do not grieve that it is gone.

Keep lighting the signal fires and wait.

Do not go gentle from our phone bands.

Grave hams, wringing their hands, cry, and give up.

Release your hands and build, blaze your signal to the sky.

Choose not an exchange but to converse.

Rage, rage; against avoiding CQ.

Elmers light their fires.

A torch to each new Tech. and General;

Go light up the bands and illuminate each watering hole.

Share and learn each other's ways.

Rage, rage defy the sun and call CQ.

Do not go gentle from our bands.

Actual poem: [“Do not go gentle into that good night”](#)

General Meeting Minutes – March 20, 2021

Attested to by James Wraalstad, Secretary

The meeting was called to order by David WA7DY at 11:06 hrs.

- President Dave WA7DY: Thanks to David Cassler for his presentation. A sad note that Raleigh Elkins, WB7WNF and Little John Erhnstrom, WA7HQG are silent keys. A “last call” from KA7IVY Ivy via the two-meter repeater was performed.
- The Vice President Phil K7PIA reported that there was a quorum. New members are Erik McClenney K3ER, James McQueen KJ7DNG, Christian Helfrich K7XTN, April Mardock KI7QFV, Dan Ridge KJ7QBY, Tim Barry KG7TJE, and Holly Eggleston W6HCE.
- Jeff W7GPG motioned that the minutes as published in the Relay be approved. Charles W7PHZ seconded. The minutes were approved.
- Treasurer, Jim KE7JIM: The books are in order.
- Activity Manager, Jason KJ7GLB: “Parks on the Air” is the April program. Mark W7EAZ is leaving the net manager position.
- Field Day: Dave WA7DY reported that we need a wagon wheel campsite, the barracks reservation, and the third item is a special event permit. It is very unlikely that any of these requirements will be obtained but Dave will continue to watch for openings. It is suggested the board determine an operational plan for Field Day at the April board meeting.

Old Business:

- Scott AG7T conducted elections of officer position for the board.
 - Phil K7PIA nominated for President. Phil was elected by acclamation.
 - KD7IQL Steve has been nominated for Vice-President. Steve was elected by acclamation.
 - ‘N7CJR Carl has been nominated for Secretary. Gill motioned to elect by acclamation. Ivy WA7IVY seconded. Carl was elected by acclamation.
 - Jim KE7JIM elected by acclamation to the position of Treasurer.
 - Jason has been elected by acclamation for Activities Manager.

Old Business (continued):

- Jeff W7GPG, AE1J Jay, and Robert KF7RWA have been nominated to the trustee position board.
- Robert KF7RWA elected to trustee position 1.
- Jeff W7GPG has been elected to trustee position 3.
- Jay AE1J has been elected to trustee position 5.
- Hal N7NW reported that the 220 repeater is still down and weather does not permit access to effect repairs.

New Business: None.

Good of the order:

Carl N7CJR reported that the FCC has reinstated license fees.

Jim KE7JIM motioned to adjourn. Phil K7PIA seconded. Dave WA7DY adjourned the meeting at 12:20.



Raleigh C Elkins - WB7WNF,
SK in December 2020

“Beyond our time we continue; a voice carried in the waves, an echo of a moment, set adrift to travel to other stars and perhaps other worlds, and in each moment merging deeper into the cosmic symphony.”

Board Meeting Minutes – April 6, 2021

Attested to by James Wraalstad, Secretary

Attending:

- *David Yarbrough, WA7DY President
- *Phil Pia, K7PIA Vice President
- *James Wraalstad, WQ7H Secretary
- *Jim Kiniry, KE7JIM Treasurer
- *Hal Goodell, N7NW Radio Officer
- *Manfred Bester AG7NR
- *Dan Aalberg, KG7DAB Trustee #2
- *Scott Robinson, AG7T Trustee #3
- *Robert Abbott, KF7RWA Trustee #5
- *Jason KJ7GLB Activities Manager
- *Robin Carter WA7BRI
- *David Smith KB7PSN Webmaster

- *Michael Hansen KG7MX Guest
- *Steve Cook Guest
- *Daniel Stevens Guest
- *Michelle WB7AYU Guest
- *Ivy WA7IVY Guest

Steve KD7IQL Incoming Board Member
 Carl N7CJR Incoming Board Member
 Jeff W7GPG Incoming Board Member
 Jay AE1J Incoming Board Member

Scott Robinson AG7T called the meeting to order at 19:15.

Motion to approve the minutes by Jason, Robin seconded. The minutes were approved.

Reports:

- Scott the Chairman of the Board: Nothing to report
- The President, David WA7DY: Nothing to report.
- Phil K7PIA Vice President: Nine applications. Adam Smith KJ7GKX, Brian Burrell-Felton KJ7SWH, Chris Fuld KJ7OFI, Joshua Zumsteg KJ7WGY, Kenneth Bolin KG7CCT, Nick Permisco K7AAJ, Schevonne Vercueil KJ7USZ, Skip Osteyee KJ7OYQ, Wade Marshall W7ITL. All were approved to be forward to the general membership.
- James WQ7H Secretary reported that the minutes have been published in the Relay.
- Jim Kiniry KE7JIM Treasurer: The books are in order.

- Jason KJ7GLB Activity Manager : Matt Heere N3NWV - Parks on the Air will be the next program.
- Radio Officer Hal N7NW: The 220 repeater is offline. Waiting for the weather to improve before going up to the site.
- David Okrent W7DAO Relay Editor: No Report.
- Webmaster: David KB7PSN: No report.
- Education and training: Robert KF7RWA: The training sessions have concluded. Scott AG7T: He is going to try all electronic for submission using electronic grading using GradeCam for in person testing.
- Membership Manfred AG7NR: Thanks to Ivy and Jim for the memorial program at the last general meeting. The committee met April 1st.
- Technical: Dan KG7DAB. Committee met on March 25th. Manfred is working on a draft for the web page. Working on restarting Wednesday night elmer nets.
- Public Service: Robin WA7BRI reports that Robert Grinnell is working on the PDF public service booklet.
- Facilities Scott AG7T: The Salvation Army is still closed.
- Field Day David WA7DY: David's recommendation is to cancel Field Day at Ft. Flagler for this year. The matter is being referred to the new board.
- Swap Meet Hal N7NW: Swap meet in 2022. There was a discussion regarding the picnic and watching for openings at sites.

Old Business:

James WQ7H motioned to retain Procedure 19 as written, and Phil seconded. The motioned passed.

New Business:

Scott proposed that new business be forwarded to the new board

Good of the order: None

Jim Kiniry KE7JIM motioned to adjourn the meeting. Phil seconded.

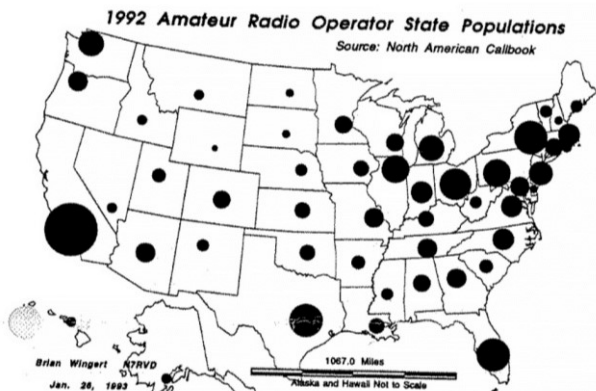
The Chairman Scott AG7T adjourned the meeting at 20:27.

A look back at April 1993....

Club Officers – 2021

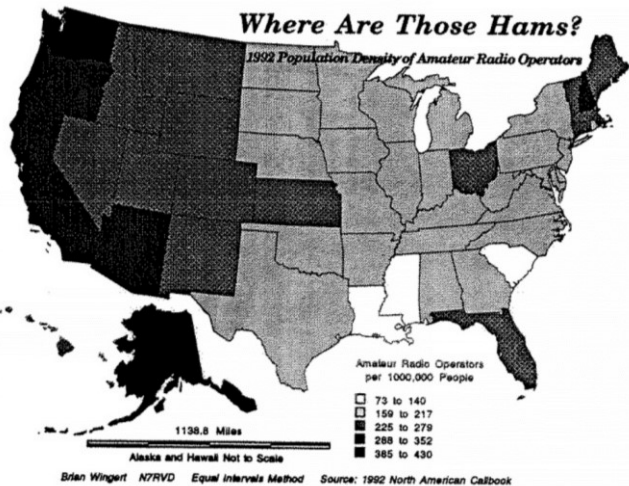
Where are those Hams?
Submitted by Brian, N7RVD

Have you ever had times when you turn on the HF rig and it seems all the stations are from California or Texas? I sure have. Is the propagation between those places and Seattle exceptionally good, or are there just a lot of hams in California and Texas? Perhaps both, but I suspect having a whole bunch of hams is the major factor.



How much is a whole bunch? The 1992 North American Radio Amateur Callbook, Page 8A, lists the total number of hams in each state. California is number one with 77,937 and Texas is number three with 31,296. Florida slipped into second place with 32,425. I popped these state totals into the database of Atlas Pro's mapping program. The graduated circle map reflects state totals.

I was interested to see if certain parts of the country had a higher percentage of hams in the general population. I divided each states general population totals into the ham totals to get a percentage which was multiplied by 100,000 to arrive at whole numbers. Population density is represented on the shaded choropleth map.



Office - Leader	Email
Chairman of the Board: Manfred Bester	cob@mikeandkey.org
President: Phil Pia	president@mikeandkey.org
Vice President: Steve Cook	vicepresident@mikeandkey.org
Secretary: Carl Reynolds	secretary@mikeandkey.org
Treasurer: Jim Kiniry	treasurer@mikeandkey.org
Activities Manager: Jason Nierenberg	activities@mikeandkey.org
Radio Officer: Hal Goodell	radioofficer@mikeandkey.org
Education & Training: Robert Abbott	education@mikeandkey.org
Technical & Special Interest: Dan Aalberg	technical@mikeandkey.org
Public Service: Jeff Kenner	publicservice@mikeandkey.org
Membership: Manfred Bester	membership@mikeandkey.org
Facilities: Jay Jones	facilities@mikeandkey.org
VE Testing: Scott Robinson	ag7t@arrl.net
Club Library: Toku Okumura	library@mikeandkey.org
Field Day Committee: David Yarbrough, Ivy Nelson-Groves	fieldday@mikeandkey.org
Logo/Badges: Scott Gilyeat	logo@mikeandkey.org
K7LED Relay Editor: David Okrent	newsletter@mikeandkey.org
Webmaster (Committee): Dave Smith, Dan Aalberg	info@mikeandkey.org -or- webmaster@mikeandkey.org
Country Store Chair: Dan Aalberg	countrystore@mikeandkey.org

RELAY page reformatted to this layout – Sorry you will have to zoom into this section

Calendar: May - July

Weekly**Daily:**

- Zoom Rag Chew at 5:30 PM
- Social Net at 7:30 PM, 2m Repeater, except Wednesdays

Mondays:

- Zoom Morse Special Interest Group: 8:30 PM, <https://mkarc.groups.io/g/morsecode>

Wednesdays:

- Technical Net at 7:30 PM, 2m Repeater
- Zoom TechNet Special Interest Group: 8:30 PM, <https://mkarc.groups.io/g/winlink>

Fridays:

- Zoom Nostalgia Net: 8:30 PM, <https://mkarc.groups.io/g/digitalmodes>

Sundays:

- Informal Net at 8:00 PM, 220 MHz Repeater. Repeater is currently off the air

Monthly**Board Meetings (7:15 PM on Zoom):**

- May 4, 2021
- June 1, 2021
- July 6, 2021

General Meetings (10AM on Zoom):

- April 17, 2021
- May 15, 2021
- July 17, 2021

Testing:

- Contact AG7T@arrl.net

Newsletter Articles Due (w7dao@arrl.net):

- May 7, 2021
- June 11, 2021
- July 9, 2021

www.mikeandkey.org – The club website includes extensive information about our activities, events, VE testing, membership, past editions of the Relay, and more. Officer contacts info: <http://www.mikeandkey.org/officers.php>.

<https://groups.io/g/mkarc> - This is the club's free and easy to use public message board.

E-Relay: Help the club save on printing and postage, send email to the n7wa@arrl.net

K7LED Repeaters: Tiger Mountain - [146.82 output, 146.22 input, PL 103.5], [224.12 output, 222.52 input, PL 103.5]



50 Years of Service
1970 - 2020

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Email: info@mikeandkey.org

Reflector: <https://groups.io/g/mkarc>

Website: www.mikeandkey.org

