



Volume 52, Issue 7

Mike & Key Amateur Radio Club – Seattle

July 2024

President's Report

Carl Reynolds / N7CJR
President

Mike and Key members, Cannot say enough about the great time and success our FD24 participants enjoyed during "Radio Camp" and 24 hours of hunting contacts. Wagon wheel participation increased over last year as well. We had a few non-M&K members help out in the digital tent as well.

One of the top highlights was a visit from a Girl Scout troop that was able to make a contact using George's GOTA station. I posted the last moments of their contact on Mike and Key's Facebook group. Big thanks to David Yarbrough, all band and points chairs, safety officer and tower guy. Almost forgot the chef, Bill and those who brought something.

My vacation to the east coast was successful as one of my goals was to visit the Marconi/RCA Wireless Museum in Chatham Massachusetts. Entrance fee was

\$6 and the staff was eager to share historical information on the golden age of wireless. It was an extremely lucrative business as well. The rich and famous needed to keep in touch. This facility was also integral in breaking the German code even before the D-day invasion thus decimating the U-boat threats.

The museum has Enigma simulators that gives you a sense of how they broke the German code. You can also practice Morse code if you need it. The local club has a radio room with a few radios, some old and some not so old.

There is an "antenna trail" I, unfortunately, did not have time to investigate. I shared a few pictures of the museum.

Also on display is an antique automated Morse code tape reel. Too much info for me to

Celebrating July Members

By Scott Gilyeat, KC7SAG, Treasurer
As of July 2023, these folks have been Mike & Key members for the number of years stated. Congratulations to all of you, and thank you for your participation and service. Happy Anniversary this month! Each of you makes us who we are.

(Life Member, 25 years or more with the Club)
(Anniversary Certificate)

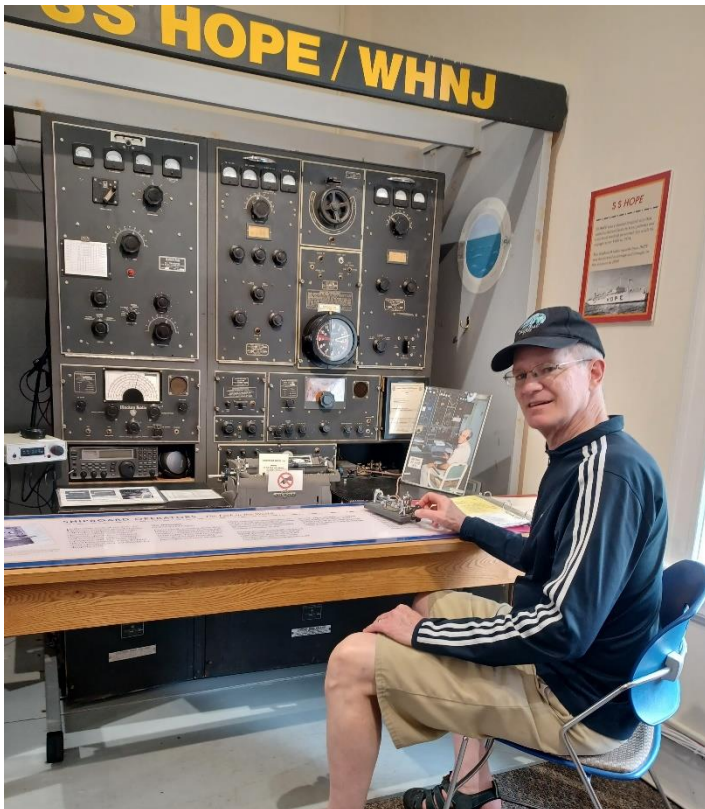
Years

49	Jimmy Sutton	K7NQ
40	Hap King	W7QCW
37	Jim Maras	WA7FMT
35	Dick Vance	K7NEX
33	Sam Sullivan	N7RHE
29	David Lee	KC7FSR
28	Larry Smith, Jr.	AB7FJ
21	Robert Grinnell	KD7WNV
13	Scott Castonguay	KC7UOC
13	Monica Cook	KF7QLX
10	Gustavo Merle	W7LU
8	Gerrie Kellogg	KI7EIV
6	Dave Koeger	N3SYO
6	Raymond Montelius	KG7WNB
6	Linda Montelius	KG7WMS
6	Christopher Wagner	K7CMW
4	Fred Mackaman	AC4NU
2	Larissa Halos	KK7CAN
2	Toby Wilson	KJ7ZIR
1	Phu Huynh	KI7TYK

regurgitate everything. Good to be back from vacation. Cheers.

July 2024

K7LED Relay



MIKE AND KEY ANNUAL SUMMER PICNIC

Let's beat the heat and have a picnic at the LAKE!!

When: Saturday August 17th, 2024

**Where: Five Mile Lake Park
36429 44th Ave S, Auburn, WA 98001
Shelter #2**

YEEHAW! IT'S ALMOST TIME FOR THE ANNUAL SUMMER PICNIC!!

Once again, we will have the yearly **family** picnic at the Five Mile Lake Park. The address and directions are on the Mike & Key ARC webpage under Club Activities/Summer Picnic.

We sure have been having August weather in July. Hope we don't use up our allotment of summer weather early this year. In any case, it will be a great day for a family picnic, because any day you can go out with friends and the Mike and Key families means it's going to be a great day!! Yes, that's right, be sure to bring your family or significant other.

We have the shelter from 9:00 am till 2:00 pm. However, we can continue at the park after 2 pm, just not in the shelter. So, the plan is to arrive at 8:00 to setup, some assistance in setup would be appreciated. Since this is a club meeting date, the meeting will occur in the shelter at the normal time of 10 am. Arrive early for coffee, doughnuts, and the normal rag chew, plus get good parking. **Please attend** as we need a quorum, to conduct any business, including voting in new members.

Speaking of NEW MEMBERS, we have had quite a few join the club in the last couple of years. The picnic is a great time to meet in person under a relaxed picnic atmosphere. We look forward to seeing you and your family there so we can get more acquainted.

Of note regarding the Shelter. There are a limited number of picnic tables, four for sure. We will try to assure we have more. If you have a folding table that you might be able to bring, contact me at n7nw.hal@comcast.com. We may need a couple more.

We will fire up the BBQ's and begin cooking at around 11:00. Hamburgers and Hot Dogs with all the trimming will be provided along with water and soft drinks. Please bring a side dish (Chips, salads, desserts). (If you don't have anything to bring, that's okay as we always have plenty)

At 2:00 pm we will clear out the Shelter. Bring lawn chairs for setting up outside of the shelter area. We will continue to have snacks and drinks till 3:00 pm or whenever we decide to break up.

There is plenty of room for games and the lake is excellent for swimming and boating.

What I need to know, so we can plan the food, is how many folks will be coming. **There is a picnic signup** on the Mike and Key website at mikeandkey.org/picnic.php. You can also reach from the Activities pull down on the home page. I need your name, call, how many in your party. We don't need to know what side dish this year. I want to be sure we have enough burgers and dogs for all.

Hal Goodell, Picnic Chair

Hope y'all come!!

Mobile Emergency Operation Center

Marc Shecter / KK7LMP

On Saturday, July 7th, members of the North Bend Amateur Radio Emergency Service team (NBAT) assisted the Snoqualmie Emergency Communication and Support team (SECAST) in constructing a mobile Emergency Operations Center (EOC). This EOC, equipped with critical communication tools and administrative office support, can be deployed to assist the Snoqualmie Fire Department during various emergencies.

Both the NBAT and SECAST teams consist of volunteer amateur radio operators who collaborate with their respective cities to offer volunteer radio

communication support during community events and emergencies.

For more information, see our websites, [NBAT](#) or [SECAST](#), or contact the following:

Christopher Kalmbach NBAT Public Information officer @ info@NB7AT.org

Marc Shecter, SECAST Team Lead @ Info@SECAST.US



The *Mike & Key ARC – 2024 Field Day Album*

<https://photos.app.goo.gl/hcwxQ67DVHvCo33f9>

Tim Schneebeck K7QMI, Silent Key

Gary Bryan / KG7KU

Tim joined the Mike & Key in April 1977. He was a member of many local Ham organizations.

Many of us Ham Radio Operators knew Tim K7QMI(SK) from the Torchlight Parade as COMMAND - Route Net Control. Tim was blind from birth and was a pleasure to watch in action. He had an amazing ability to keep track of details of multiple inputs and communicate with

conciseness. A very pleasant tone and demeanor in his voice... calling out intersection after intersection to confirm assignments... all from memory.

This, from the 'PSRG Discussion Group' on Facebook.

Reference: <https://www.facebook.com/groups/ww7psr/>

A New Toy

Michelle Baskett / WA7PVE

A picture of the new and improved ham shack. Replaced the FT-710 with a TS-590sg.

Yep, the wife finally got sick of my whining.



I also found out that the FT-991a can be programmed to work as a scanner.

Along with local repeater frequencies I now have local fire, police, air, and Marine traffic programmed in. I did this with RT-systems software. If you use RT-Systems and have FT-991a. email me and I will be glad to share.



Pacific Northwest DX Convention

The Pacific NW DX Convention rotates between 4 major DX clubs in the Pacific NW. This year, it is being sponsored by the Western Washington DX Club and is being held in Everett, August 9-11.



You can find a lot more info about the event at <https://pacificnwdxconvention.com/> including the list of speakers and schedule.

If you have any interest in DXing or Contesting, these are your people.

Field Day Results

David Yarrough / WA7DY

I have submitted our results for Field Day 2024. It was a really great Field Day, thanks to everyone who came out and helped make it a success. I'm very proud of the work that you all put in to make the event a success.

Our total score for 2024 was 22,040 which is a 17.8% increase from last year. Overall, it was a

very strong performance across all aspects of our Field Day operations.

I'm including the submission summary below so you can see the details.

Summary

all Used: **K7LED** GOTA Station Call: **AE7G** ARRL/RAC Section: **WWA** Class: **6A**

Participants: **60** Club/Group Name: **Mike & Key ARC**

Power Source(s): **Generator, Battery, Solar**

Power Multiplier: **2X**

Preliminary Total Score: 22,040

Bonus Points:

Bonus	Points	Status
100% emergency power	600	
Media publicity	100	
Public location	100	
Public information table	100	
Formal message to ARRL SM/SEC	100	
W1AW Field Day message	100	
Formal messages handled (10 x 10, max of 100)	100	
Natural power QSOs completed	100	
Site visit by invited elected official	100	
Educational activity	100	
Youth participation (6 x 20, max of 100)	100	
Safety officer	100	
Social media	100	
Satellite QSO	100	
GOTA Station	2850	
GOTA Coach	100	
Entry submitted via web	50	
Total bonus points	4,900	

Score Summary -

	CW	Digital	Phone	Total
--	----	---------	-------	-------

Total QSOs 2402 549 2668

Total Points 4804 1098 2668 **8570 Claimed Score = (QSO points x power mult) = 17,140**

Band/Mode QSO Breakdown:

Band	CW		Digital		Phone	
	QSOs	Pwr(W)	QSOs	Pwr(W)	QSOs	Pwr(W)
80m	55	100	73	100		
40m	412	100	9	100	813	100
20m	751	100	93	100	931	100
15m	614	100	373	100	921	100
10m			1	100		
Satellite					3	5
GOTA	570	100				
Total	2402		549		2668	

GOTA Station: GOTA Coach - 100 Bonus Points

Name	Call	QSOs	Bonus Points
Joyce Stroehler	N7JPW	370	1850
Denice Carnahan	KK7PLF	11	55
LJ Bayha	KG7POD	31	155
Marc Shecter	KK7LMP	5	25
Tom Sayles	KE4HET	29	145
Bill Swearingen	KV2B	124	620

My First Field Day Impacted My Life

Mel Ming / N7GCO

Mel is a good friend and wrote this on Facebook. Just a little late for the June Relay. However, if you are thinking about FD 2025... -ed

When I became a ham, I took a class put on by the BEARS in West Seattle. My wife and I and another couple took the class and passed the tests (Novice, Tech and General). At the time I didn't know of any local hams or ham clubs.

My only Elmers were the ham books I could get my hands on. I had never visited another person's ham station or watched anyone else operate.

When on assignment in the Philippines from 1989-1991 I did a lot of HF operating but it was all self-taught.

In 2001 or 2002 I moved back to the Seattle area and joined the Western Washington DX Club. They announced they were having a Field Day. I honestly did not have any idea what that meant, but I thought I would check it out.

It was held at Brian Moran's N9ADG in Preston. I arrived on a Saturday and it was an eye-opening experience. They had a SteppIR antenna on a crank up tower trailer setup in a field below his house. They had separate operating areas for CW/RTTY and SSB. There was also an area where they had set up a solar radio and antenna. (I also got to check out Brian's crank up tower with a huge SteppIR antenna and the biggest hardline cable I had ever seen.)

Everyone was very friendly and cheerfully answered all my naive questions. No one seemed to mind that I had no idea what was going on. It was fun to get to hang out with the club members.

But what impacted me most was going to the CW/RTTY area and watching Dick Swanson, K7BTW. I doubt he realizes the impact he had on me. He was amazing, I sat and watched him for at least half an hour. It was my first chance ever to watch someone work in a contest. His efficiency in operating and his using the computer for logging opened my eyes to what real contesting was like. It literally changed amateur radio for me.

I immediately went home and started to implement some of the things I had observed. A few weeks later I entered the IARU contest for the first time

and participated not just to reach new DXCC countries, but to have fun in the contest.

There are several great things about field day. You get to:

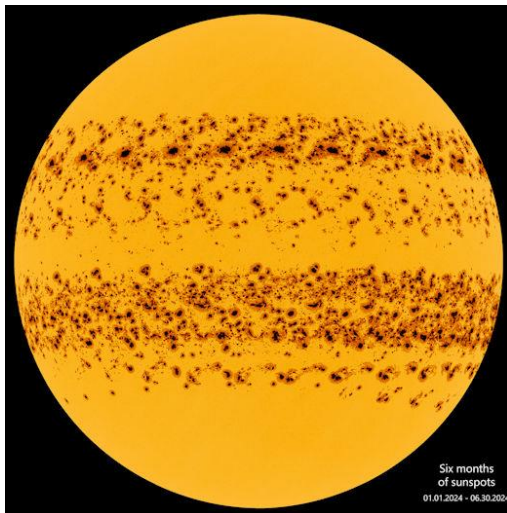
- See a portable station including antennas setup and take down
- Watch others operate in a contest
- See different operating modes
- See a contest logging program and maybe some new techniques
- Ask questions and explore new things
- Hang out with other club members
- Enjoy fun times around meals

I really encourage you to get some friends together and do Field Day next weekend.

Six months of Sunspots

Spaceweather.com

The first six months of 2024 are in the books. Amateur astronomer Eduardo Schaberger Poupeau stacked daily sun images for all 182 days, and it looks like Solar Max:



This composite image shows us two things. First, sunspots are concentrated in two bands, one north and one south of the sun's equator. As the solar cycle unfolds, these two bands will converge on the equator, eventually meeting and extinguishing themselves in a collision of opposite-polarity magnetic fields. Solar Maximum will be replaced by Solar Minimum.

Second, the southern hemisphere is spottier than the north. This is not unusual; sometimes one hemisphere dominates the other for months at a time. In this case, sunspot counts were skewed by one massive southern sunspot (AR3664), which circled the sun three times, tripling its contribution to the southern total.

Solar Max is far from over. Forecasters expect it to persist for 2 to 3 years, and we are just getting started. Stay tuned!

Move Field Day?

An interesting thread started on the contest reflector. It, pretty much, got shot down though. -ed

For most of the US, it's uncomfortably hot on FD, not only this year, but almost every year. Why not move it to April or May, or even the same weekend as European FD?

Another New Toy

Steve Miller / KG7VJW

Our EOC to EOC 5th Saturday drills? The Camp Murray/WA EM folks want us to contact them via 60 meters??????

At present, Tukwila does not have 60-meter capability at either of its EOCs. Myself I have a Hy-Gain AV-640 and G5RV for HF at home. The Hy-Gain is 6 meters to 40 meters and the G5RV does

the same plus 80 meters i.e. no 60-meter capability from either.

So... on its way is a 60-meter dipole for my home use. Point of fact if I may? Part of the WA EM's directives for these drills for 2023 and 2024 is to perform some of the drill's objectives, away from the EOC. If an antenna qualifies as a new toy, that is. *It does. -ed*

Field Day, from the other side

Justin McAllister / K5EM

Nice to work you guys. I set up on the beach at Mo clips for a few hours yesterday between vacation family times. Good times. 15m was hopping.



First Time Field Day

William Swearingen / KV2B

I attended Field Day for the first time ever, and it was my first time getting on HF. I camped at the Wagon Wheel starting on Wednesday. Everyone was friendly and I met many interesting characters. There were great meals, chats around the campfire, and some nice people even brought and shared some fancy beverages. It was not at all what I expected.

It was fun helping to set up and my tools came in handy. During the actual field day event, my first stop was the GOTA tent where George AE7G and Carl N7CJR

helped me make some contacts on HF. I spent a good deal of time by the 40-meter station where I got the chance to see Dean N7XS work pileups. I worked a shift and my fledgling contest skills improved dramatically.

After the event, I helped with teardown and went to the local Mexican restaurant with the rest of the gang. The radio skills I learned were good, but what made the overall experience great was the people. I'm already planning for Field Day 2025.

Balloon Repeater

William Swearingen / KV2B

A few days ago, Dean N7XS tipped some of us off that a group (VE7NFR) in British Columbia would be launching a repeater on a balloon. I thought "How neat would it be to hear transmissions from an airborne repeater across the border?"

I happened to check the website Sunday evening and noticed that they had launched the balloon and it was due to complete its trip within minutes. I hurriedly grabbed my FT-991A, hooked it up to the computer and programmed the frequencies and tone. I brought it up to the back patio and hooked it

up to the antenna and battery. Upon tuning on the radio, I heard the net control op ask for check-ins. I pressed the PTT and gave my call. Amazingly, he heard me! I told him that I thought what they were doing was really cool. The net op said that I was coming in very well.

After my report I was so excited that I yelled "wahoo!" on the patio and then ran inside to tell my wife and son that I had just talked on a balloon repeater in Canada. They were completely unimpressed. Oh, well. At least I had fun doing it.

K7LED Field Day – CW Beach

The CW Beach Team

This year, CW Beach turned out to be a challenge. On May 31, just three weeks prior to Field Day, Mike, N7WA sadly informed us that due to unforeseen personal circumstances he would not be able to participate this year. The large amount of antenna and station equipment that he typically brought out to Fort Flagler would not be available either. The next day a series of emails were exchanged, and we met via Zoom to come up with a contingency plan, starting practically with a blank page. We certainly wanted to avoid canceling CW Beach and fall back to Class 4A.

Replanning CW Beach

With only four committed CW operators (N6CHU, N7NW, W7UDH, AG7NR), the initial thinking was to downscale the complexity of the beach setup. We planned to have two stations, but only one would be staffed while the other was a backup. This would at least bring us back to Class 5A. Bob, N6CHU and Manfred, AG7NR each proposed to bring a turn-key station that could be independently assembled and tested at home before heading to Fort Flagler. These stations would also include their own AC power sources. Dick, W7UDH offered to bring his vertical antennas for 40, 20 and 15m.

After numerous email exchanges and half a dozen Zoom meetings our "organic effort" (as Mike put it) matured. We became a bit more ambitious and tentatively agreed to run with two operational CW stations as Class 6A after all. A week and a half prior to Field Day we were fortunate enough that Curt, WR5J and Jeff, W7BRS joined the team again (much like last year), so we were back to six CW operators. Jeff also offered to bring his 40-10m multi-band vertical antenna to give it a good checkout prior to his upcoming

DXpedition to Lord Howe Island. With these new developments, Class 6A was a GO – we were back in business! Final team roles and responsibilities are shown in the table below.

Team Member	Roles & Responsibilities
Mike Dinkelman N7WA	<ul style="list-style-type: none"> • CW Beach Co-chair • Off-site Support
Manfred Bester AG7NR	<ul style="list-style-type: none"> • CW Beach Co-chair • Event Planning • Station 1 Setup • Operator
Bob Huntsman N6CHU	<ul style="list-style-type: none"> • Station 2 Setup • Operator
Hal Goodell N7NW	<ul style="list-style-type: none"> • Logistics Support • Operator
Dick Goodall W7UDH	<ul style="list-style-type: none"> • Antenna Setup • Operator
Curt Black WR5J	<ul style="list-style-type: none"> • Antenna Setup • Operator
Jeff Wandling W7BRS	<ul style="list-style-type: none"> • Antenna Setup • Operator

Station Equipment and Antennas

We ended up using the following station equipment and antennas:

Station 1 (AG7NR):

- Elecraft KX3 and KXPA100
- Powerwerx SS-30DV power supply
- Mortty V4 Winkeyer, CW key, headphones
- Windows laptop with N1MM+
- Dummy load, antenna switch
- Goal Zero Yeti 1400 plus solar panels
- Goal Zero Yeti 6000X

Station 2 (N6CHU):

- Elecraft K3
- Astron 35M power supply
- Winkeyer, CW key, headphones
- Windows laptop with N1MM+
- Honda Model EU3000is inverter/generator

Antennas:

- Two ¼-wave verticals with passive reflectors and radials for 20 and 15m (W7UDH)
- ¼-wave vertical with radials for 40m (W7UDH)
- End-fed wire with 9:1 unun and 1:1 choke unun for 80m (WR5J), LDG Z-100Plus tuner (AG7NR)
- Multi-band vertical with radials for 40-10m (W7BRS)

George, AE7G kindly loaned us his Elecraft K3 as a spare, but we ended up not using it.

Setup on the Beach

The crew arrived on the beach on Friday, June 21 around 10 AM local time. We were joined by Chuck, WA7EBH, Toku, AD7JA, Frank, KC1PIU, and Steve, KK7MJD who are not CW operators, but generously offered their help with setting up.

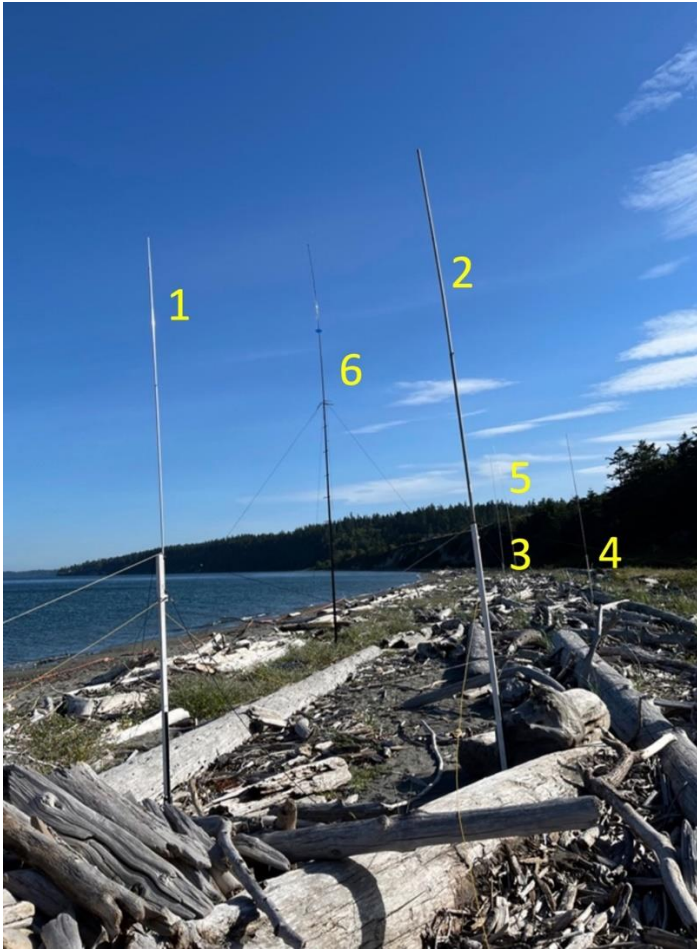
Our first job was to deploy the operating tent that Bob had obtained from Mike. It was placed in its usual location. Bob and Hal brought folding tables, chairs, canopies, and a large tarp as a sunshade to keep us comfortable. Curt's truck was quite the resource to have onsite. It contains an impressive collection of tools and useful accessories that are well organized in drawers and bins.

Once the tent was up, Manfred and Bob set up their station equipment: Station 1 for 80/20m on the left side, Station 2 for 40/15 m on the right side. Dick, Jeff, and Curt with help from several others worked on setting up the antennas. All coax cable runs were RG-8X.



Steve, Frank, Toku and Curt helped Jeff to assemble his multi-band DXpedition antenna.

We had no firm plans for stringing up an EFW antenna for 80m but kept this as an option in case there was extra time. While Curt, Chuck, and Manfred each had brought an EFW along, we decided to use Curt's version since it was pretty much ready to go with an attached 9:1 unun, 1:1 choke unun, and counterpoise. It turned out to be quite challenging to get a tie line across the dense vegetation between the access road coming down from the bluff and the beach. Eventually we succeeded and tied the far end to trees above the access road, partway up to the bluff. Manfred had an LDG Z-100Plus antenna tuner that was put to good use.



CW Beach vertical antenna farm: 15m ¼-wave (1) with passive reflector (2); 20m ¼-wave (3) with passive reflector (4); 40m ¼-wave (5); 40-10m multi-band vertical (6)



EFW antenna, strung to a tree partway up to the bluff



Goal Zero lithium battery units and solar panels for Station 1 (AG7NR)

July 2024



Honda inverter/generator for Station 2 (N6CHU)

The beach setup was completed prior to the potluck dinner at the Wagon Wheel. However, it got quite windy in the late afternoon, and we had our hands full with resetting tent stakes and re-tightening ropes to keep things from flying away. One of the gems in Curt's truck was a set of sturdy stakes made from rebar that turned out to be a must-have. Fortunately, the wind eventually calmed down around sunset.

On Friday night, Curt, WR5J camped out in the operations tent on the beach to guard the equipment overnight. We had included this in the WA State Parks permit application.

Operating Schedule

Our operating schedule that Dick drafted for us was based on the standard we had been using at CW Beach in previous years: two-hour shifts with swapping stations halfway through the shift. That way everyone would get a fair share of good and less than optimal band conditions during the first 12 hours. The second 12-hour period was run in three-hour shifts, with operators staying at the same station for the most part.

Originally, we had planned to run only one station during the slow hours to give operators enough rest time. In the end, only one hour on Station 1 (80/20m) was left unattended (2-3 AM local time). Our shifts resulted in a total of 45.4 net operating hours for both stations combined (40.9 hours in 2023). Dick put in the most operating hours this year, and as a result, contributed the largest number of QSOs. Overall, we had only 24 duplicate QSOs between the two stations. These were removed from the statistics shown below.



Dick, W7UDH working Station 1

Bob, N6CHU working Station 2.

Photo credits: WR5J, N7WA



Visitors

On both Friday and Saturday, we had quite a few visitors who were curious about our activities on the beach. A group of American Heritage Girls with their adult leaders was particularly interested. Jeff gave them such an exciting introduction to ham radio that they could not wait to get up to the GOTA station and give it a try themselves.



Jeff, W7BRS explaining ham radio to a group of youngsters

By the time Sunday morning came around, all of us were rather exhausted but it sure was a great adventure again. Everything worked out better than we had anticipated. We packed up in rainy conditions, and the last team member left the beach at 2 PM local time. Obviously, we are already looking forward to next year, handing the reigns back over to Mike.

Results

The table below shows hourly binned statistics for each band. The changes in band conditions are easy to see.

The yield on 15m was great this year! The solar maximum apparently helped, and the Sun was well behaved.

Date	Hour	80	40	20	15	Total
20240622	1800	0	0	44	52	96
20240622	1900	0	0	30	83	113
20240622	2000	0	0	35	19	54
20240622	2100	0	0	54	34	88
20240622	2200	0	0	42	69	111
20240622	2300	0	0	45	59	104
20240623	0000	0	0	46	39	85
20240623	0100	0	0	53	34	87
20240623	0200	0	10	65	12	87
20240623	0300	0	16	66	4	86
20240623	0400	5	52	44	0	101
20240623	0500	19	63	0	0	82
20240623	0600	13	46	14	0	73
20240623	0700	2	29	37	0	68
20240623	0800	10	36	5	0	51
20240623	0900	2	42	0	0	44
20240623	1000	4	51	13	0	68
20240623	1100	0	45	7	0	52
20240623	1200	0	12	32	0	44
20240623	1300	0	10	16	5	31
20240623	1400	0	0	16	26	42
20240623	1500	0	0	34	46	80
20240623	1600	0	0	33	80	113
20240623	1700	0	0	20	52	72
Total QSOs:		55	412	751	614	1832

A side-by-side comparison of the results in 2023 and 2024 is shown below. QSOs by band were very similar on 80/40/20m last year, but 15m offered a much higher QSO count this time around.

Band	CW Beach QSOs	
	2023	2024
80	65	55
40	428	412
20	763	751
15	332	614
Total	1588	1832

Lessons Learned

Our team effort made it possible to come up with a contingency plan on short notice that resulted in a full dual-station operation with simplified antennas on the beach. This is in line with one of the Field Day goals, namely, to practice emergency response capabilities. It is not obvious that a significantly larger effort with installing our 20 and 15m beams would have worked much better. Using ground-mounted antennas instead also removed several safety related risks.

The EFW antenna yielded results comparable to the full ¼-wave vertical for 80m (a.k.a. the “noodle”) we had used in previous years. On the downside, there was a lot of intermittent background noise on this band that made completing QSOs rather challenging at times. The source of this noise is unknown.

After 22 hours of supplying AC power to Station 1, the Goal Zero Yeti 6000X displayed a total energy consumption of 2748 Wh with 59% of its 6000 Wh capacity remaining. The smaller Yeti 1400 still had a remaining capacity of 70% after supplying the Friday setup phase for both stations, plus 2 hours of Station 1 operation while being recharged from solar panels (120 W in full sunlight). It may be possible to run both stations for 24 hours on battery power with solar charging alone but having a gasoline generator available on standby as a backup.

We ran separate instances of N1MM+ on the two stations without any network connection between them. This worked fine in general, as ADIF logs could be easily combined later. We were not always consistent with telling N1MM+ when an operator change occurred. It may be useful to have a sign-in sheet at each station as a backup. ADIF logs could be corrected for operator changes after the fact, using custom software. We did not verify that contest exchanges and function keys were correctly configured and matched between the two stations prior to the begin of operations. This resulted in some delays on Station 1.

All in all, CW Beach 2024 was a very enjoyable team effort again. With Mike’s guidance and encouragement, we were able to pull it off another time. We would like to thank Chuck WA7EBH, Frank KC1PIU, Steve KK7MJD, and Hal’s family for their help with setting up and breaking down our beach operation. Toku AD7JA, Bill KK7KCN, and Ross W7ROV provided excellent culinary delights to keep us energized, hydrated, and in good spirits.

Diane Dinkelman, KB7DNE, Silent Key

Michael Dinkelman / N7WA

This is the most difficult document I have ever written. I have been writing it in my mind for most of the past month, remembering long-ago days. You will have to allow me some leeway. I do want to thank those that have expressed their condolences, sympathies, and hugs. And, if I seem out-of-sorts; well, I am doing my best.

On June 10th, the Club lost a long-standing Club member of 31 years and I lost the love of my life of 46 years. When we got married, I am sure I had told Diane that I was an Amateur Radio Operator. However, I was more concerned with chasing her than chasing DX or contesting. In fact, I think my license actually expired for about 6 months while courting her.

Diane had no interest in Ham Radio and I didn't care. While I did drag out my HW-101 and try to setup a station in our first home, she was glad when it went away. Not much room in a rental single-wide trailer or extra money to spend on toys. Five years later though, we purchased a home in downtown Kent and I saw radios in my future. A new-to-me TS-820 from Amateur Radio Supply (Do we have to go there again?) and simple antennas got me on the air. She was happy I was home and she could see me in the living room corner playing Ham Radio. She even bought me my first tower. However, all this eventually led to my introduction to the Mike & Key ARC. No, Diane had no interest in the Club either.

Diane and I were always a "we" whether radios were involved or not. Diane had organizational abilities that I did not. She had creativity that I did not. Diane knew how to have fun, and my idea of fun was... suspect. In the early years of my membership, I took on the Activity Manager position. On the newsletter banner where it listed me as Activity Manager, it should have said Michael & Diane. WE organized the Banquets, the Christmas Parties, and the Picnics. She would give direction at the events and I was the dutiful husband. Then we had a Mariner game, bowling parties, and even a cruise on the ferry to dinner in Bremerton. When I became the Relay editor, and we mailed 200 newsletters every month, she was there to help get them printed, folded, stamped, and mailed. She taught me a lot about organization, creativity, and non-Ham fun. She provided the encouragement, for me, to try new things. Like licensing classes.

At Highline Community College, this Club would have Novice classes in the Fall followed by Tech/General classes in the Winter. I think it started out with Hal and I as the instructors. After a year, maybe two, she signed up. NOT to learn about Ham Radio but because she was tired of spending Thursday evenings home alone so this was a way to be with me on Thursday. Diane had no grasp of electronics and asked the most exasperating questions. She had to study Morse code. But, in the end, Diane earned a Novice license, KB7DNE, and eventually worked that into a Tech+ license. Diane had no use for that license but she was happy it (DNE) aligned with her name.

Diane did enjoy the Swap Meet. It appealed to her organizational abilities though Hams, in her opinion, were crazy. Me included. She started by helping the VE's, then graduated to helping out at Registration. Registration frustrated her to no end. It was NOT well organized. When the Chair of Registration eventually stepped down, Diane stepped up. She knew the Chair had to be a member of the Club, so she joined, officially, in October 1992. She was already organizing. Diane ran Registration for 25 years. Most of the current structure of running Registration was born in Diane's mind. She loved it. Registration runs 6 months out of the year. It was her Fall/Winter activity. She has plaques on the wall attesting to her work and even earned the Pop Brown award, the Club's highest honor. (She made sure to dig that in.) Health issues eventually ended that in 2019. Even now, when folks come through Registration, they ask "How's Diane?".



I was always proud that someone who didn't really care about the radios but did care about me and, by association, the Club was so willing to dedicate herself to it all. She did more work to help this Club be a success than many. She was also the key to my successes in life.

I miss her. Terribly.

Mike & Key ARC – General Membership Meeting Minutes

Date/Time: June 15, 2024, 10:00 Pacific

Meeting Place: [Kent Senior Center, 600 East Smith, Kent, WA](#)

Attested to by Jeanne Yearian, Secretary

President, Carl Reynolds N7CJR: Call to Order (Pacific) 10:00AM

Presentation: Field Day 2024, Vince VE6LK, Go Kit Building Design Considerations

Vice President Paul, KI6QXV: Verified a quorum is present.

Approval of 05/18/24 General Meeting minutes: Motion made by Ivy WA7IVY; Second: Phil, K7PIA. Minutes approved with no dissention.

Agenda:

Reports

- President (Carl Reynolds N7CJR): No report.
- Vice President Paul Petach, KI6QXV: New membership applications: Troy Wells, WEIS, Paolo Assandri KK7JCN. All approved by the General Membership with no dissention.
- Secretary (Jeanne Yearian, KE7MES): No report.
- Treasurer (Scott Gilyeat, KC7SAG): Welcome to the new members. Current membership 310. Reminder: Please pay your dues to keep current. Membership training credits are available for those who have taken Daniel's (KL7WN) class. Check the website for current payment options.
- Activities Manager (Ross VanDeen, W7ROV): If you would like to volunteer see the contact info in the booklet. It is not too early to start thinking about Winter Field Day, January 26-27, 2025. There is no group camping at Fort Casey but there are showers and a good restaurant close by. You can't make reservations until April 24. In October the general meeting presentation will be about Winter Field Day.
- Radio Officer (Steven Cook, KD7IQL): No report.

Standing Committees

- Technical & Special Interest (Robert Christian KJ7CBO): No report
- Public Service (Robert Grinnell, KD7WNV): This is the season for public service events. More booklets for the 2024 Public Service Event Season are available. Marathons, road

rallies, have begun. Ramrod update: Reminder: RAMROD is the 4th of September. Same course but reverse direction, starting at 5:00 AM, ending at 8:00 PM. Please sign up to support this event. 150 miles around Mt. Rainier, 10,000 feet of climbing. This is Ramrod's 40th anniversary. SEAPAC conference coming up the first weekend in June. Pacific NW DX convention – 2nd weekend in August in Everett – will be held locally this year. Rotates among four clubs, Spokane, Seattle, Portland and Vancouver.

- Education & Training : (Daniel KL7WM): We will have a class at the end of August in Seattle. Information will be posted online.
- Membership (Manfred Bester, AG7NR): No report
- Facilities & Publicity (Alex Malesis, W7AEM): Looking for additional options for meeting locations.
- Repeater (Steven Cook, KD7IQL): No report
- Publications & IT Support (Scott Gilyeat, KC7SAG): No report.
- Relay Editor (Mike, N7WA): Keep the great articles coming in.
- Web Master: No report

Essential Committees

- Audits: (Sam, N7RAG) The Swap Meet Audit Committee met twice. Audit has a few outstanding issues..
- Awards (Presenter: Dean Holtan, N7XS): No report
- Finance (Scott, KC7SAG): No report
- Strategic Planning (Manfred, AG7NR): No report.

Event Committees:

- Field Day (David WA7DY): Beginning at noon, Saturday, June 22nd through Noon, Sunday, June 23rd, is Field Day 2024. The weather forecast is predicting cooler than usual weather. Possible rain is forecast at this time for Sunday. Still need a back-up driver for equipment trailer. Alex has volunteered to be Co Chair for the Points committee as Manfred will be working CW Beach this year in Mike Dinkelman's absence. Remember safety equipment. There is a road closure on the way to Fort Flagler. Check WSDOT for updates and alternate roads. Friday lunch will be provided for set-up volunteers. Friday evening we will have a potluck open to the club. Saturday evening the leftovers from the Friday evening potluck will be brought out.

July 2024

- Picnic (Hal N7NW): 5 Mile Park reserved for August 2024. More info to come at the July meeting.

Old Business:

- The Club will be transferring the library (books and equipment) to the storage unit in Covington.

New Business:

- Need Club Historian. Please contact the Board if you are interested.

Good of the Order:

Mike & Key ARC – Board Meeting via Zoom

Date/Time: July 2, 2024, 19:00 Pacific

Attested to by Jeanne Yearian, Secretary

Participants:

Carl Reynolds, N7CJR (President)
Paul Petach, KI6QXV (Vice President)
Jeanne Yearian, KE7MES (Secretary)
Scott Gilyeat, KC7SAG (Treasurer)
Ross VanDeen, W7ROV (Activities Manager)
Steven Cook, KD7IQL (Radio Officer)
Jeff Hite, N7FCC (Trustee #1 - not present)
Robert Christian, KJ7CBO (Trustee #2)
Robert Grinnell, KD7WNV (Trustee #3)
Manfred Bester, AG7NR (Trustee #4 - Board Chair)
Alex Malesis, W7AEM (Trustee #5)
George Thornton, AE7G (Volunteer Counsel)
Mike Dinkelman, N7WA (Relay Editor, Swap Meet Co-chair - not present)
Hal Goodell, N7NW (Swap Meet Co-chair, Repeater Committee Co-chair)
Sam Sullivan, N7RHE (Financial Committee Chair)
Michelle Cross, WB7AYU Visitor

Agenda:

Call to Order (20:00 Pacific) by Manfred, AG7NR
Establishment of quorum (Paul Petach, KI6QXV): We have a quorum.

Approval of previous Board meeting minutes: Motion made and approved. Motion passed with no dissent.

Reports:

- Chairman of the Board (Manfred, AG7NR): Had a great time at Field Day. Looking forward to next year already.
- President (Carl, N7CJR): Had a great time at Field Day as well; Towed equipment trailer;

K7LED Relay

- Certificate Presentation by Carl, N7CJR to Daniel Stevens, KL7WM. Daniel has been appointed as the Assistant Director for ARRL's NW Division.
- George, AE7G: Ramrod is sold out but need additional volunteers.

Next Meeting: July 20, 2024, 10:00 AM Pacific at the Kent Senior Activity Center, 600 E Smith St, Kent, WA 98030.

Adjourn: Vote to adjourn at 11:50. Motion made by Scott, AG7T, and seconded by Ivy, WA7IVY. Motion approved with no dissent.

Some damage was caused at Toku's, AD7JA's fence - needs to be addressed.

- Vice President (Paul, KI6QXV): New membership applications (3): Daniel Burkhart, KM4FYD; Brian Spindor, KA7KUZ; and Devin Hamilton, N7IQZ. All were approved to move to a vote of the membership at the upcoming General Meeting.
- Secretary (Jeanne, KE7MES): No report.
- Treasurer (Scott, KC7SAG): Active roster: 310. No unusual expenditures. Received several donations. Books are in order.
- Activities Manager (Ross, W7ROV) Renton EmComm will present at the next General Meeting.
- Radio Officer (Steve, KD7IQL): Repeaters seem to be working fine. Will be getting together with Hal and the Committee in August. Plan a trip to Tiger Mountain.

Standing Committees

- Technical & Special Interest (Robert, KJ7CBO): The Technical & Special Interest Group meetings will be moved to a weekday. Details to come. Nets are running well. Mike & Key in the Park events continue.
- Public Service (Robert, KD7WNV): Everything is in place. Things are going as planned.
- Education & Training (Jeff, N7FCC- not present): No report.
- Membership (Manfred, AG7NR): No meetings held. Will invite newly approved applicants to the next General Meeting.
- Facilities & Publicity (Alex, W7AEM): Enjoyed Field Day. Going to reconfigure the layout at the next meeting to see if we can fit 5-10 more chairs.

- Repeaters (Steve, KD7IQL): See above under Radio Officer report. Repeaters are operational.

Publications & IT Support

- Relay Editor (Mike, N7WA - not present - Manfred, AG7NR, reporting): Field Day participants are encouraged to submit articles for the July Relay. Please have submissions in by Friday evening, June 12.
- Web Master (Scott, KC7SAG): Still working on the on-line application and membership data.

Essential Committees

- Audits: No report
- Awards (Scott, KC7SAG): Working with the committee members (David Yarbrough, Dean Holtan, Tim Kane, Jim Kiniry) - Manfred, AG7NR to reach out to committee members; Awards should be ordered in time for hand-out at the August picnic.
- Finance (Scott, KC7SAG; Sam, N7RHE): Swap Meet audit: Financial inflows and outflows from the 2024 Swap Meet are correct; Need to work out some procedural details for next year. George, AE7G, suggested having additional staffing at the ticket gate.
- Strategic Planning (Manfred, AG7NR): No report

Event Committees

- Swap Meet: Not discussed
- Field Day 2024: (Carl, N7CJR) Need to unpack and dry out the tents before storing them in the equipment trailer. Should have a procedure for storing and testing the Bluff generator. It may need to be serviced prior to Field Day 2025. Sam, N7RHE, will share procedures for winterizing the generator with Field Day administrators.

Contact Us:

Email: info@mikeandkey.org

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

Website: www.mikeandkey.org

Officer contacts info:

<http://www.mikeandkey.org/officers.php>

Postal Address:

P.O. Box 4234
Renton, WA 98057-4234

- Picnic (Hal, N7NW): Will be held on August 17 after the General Meeting at 5 Mile Lake Park in Auburn.

Old Business

- Policy #24: New procedure addressing the newly created Scholarship Fund is in discussion (wording to be updated by George, AE7G, Volunteer Counsel, and presented to the Board for review in August).
- Club Historian update: Carl, N7CJR noted that Ivy, WA7IVY, has volunteered to be the Club Historian once she retires later this year.

New Business

- Ham Huddle: Board discussed the letter and proposal received. Manfred, AG7NR, to send a response.

Good of the Order

- Carl, N7CJR: Toku AD7JA had asked about K7LED QSL cards for Field Day visitors. Hal, N7NW noted that K7LED QSL cards should be updated. These could be on hand at the Field Day information booth in 2025.

Action Items

- Manfred, AG7NR: Email Awards Committee
- Manfred, AG7NR: Respond to the Ham Huddle proposal

Next Meeting

- August 06, 2024, 18:45 Pacific remotely via Zoom (no change in meeting date/time/location)

Adjourn

- Motion to adjourn by Paul KI6QXV, seconded by Carl, N7CJR at 20:25 Pacific. The motion passed with no dissent.

The club website includes extensive information about our activities, events, VE testing, membership, past editions of the Relay, and more.

The Mike and Key ARC is an ARRL affiliated club dedicated to the growth and betterment of Amateur radio.. Visit our website for meeting, membership, and other information



ARRL
The national association for
AMATEUR RADIO™