

# K7LED Relay



Volume 51, Issue 7

Mike & Key Amateur Radio Club – Seattle

July 2023

## President's Report

*Carl Reynolds / N7CJR*  
President

As most of you know, we lost Dave Smith, KB7PSN, just before Field Day. His brother hastily scheduled a memorial service which a few club members attended. I got to know Dave a little bit better from the stories that were told, the songs his brother sang and the pictures they showed. He will be greatly missed. He always encouraged me to transfer to the Space Force, but my mind was made up to retire from the military. I am sure his family, friends, the community and our club will look back on his life and contributions with gratitude and a lot of laughs.

I really enjoyed getting back on the "Field Day" horse after a long absence of maybe 15 years. Thanks, David / WA7DY, for heading up the effort and well done. The club grape vine is saying we racked up some serious contacts on CW beach, Digital and GOTA as well as the other bands, I am sure. I enjoyed attending George's master class as a GOTA go-fer along with David and Gary. Best time was dodging deer dung while raising

the GOTA antenna. Sorry Mike D., I forgot to take pictures. Next year for sure. Maybe someone else did. Finally, operating on HF was the prize of all our efforts which stretched my minimal call sign copying skills to the limit. George will attest to it. My voice held up surprisingly well. I only lasted till midnight Saturday, but came back Sunday morning. While assisting with raising one of the towers, we all gazed skyward saying to ourselves, "I'm glad Daniel's up there and not me". And if we're honest, "Don't drop it". I also took a class from the "Knot" doctors, so hopefully the "Trucker's Hitch" is imprinted on my brain enough not to forget. I also want to acknowledge a job well done to the chefs, their helpers and those who brought the food. Thanks to Jeanne and Fred for donating supplies even though you were not able to be there. Heal quickly Fred.

I hope all of you enjoyed our mid-week Independence Day

## 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

47	Jimmy Sutton	K7NQ
38	Hap King	W7QCV
35	Jim Maras	WA7FMT
33	Dick Vance	K7NEX
31	Sam Sullivan	N7RHE
27	David Lee	KC7FSR
26	Larry Smith, Jr.	AB7FJ
19	Robert Grinnell	KD7WNV
11	Scott Castonguay	KC7UOC
11	Monica Cook	KF7QLX
11	Earl Palmer	N7EP
8	Gustavo Merle	W7LU
6	Gerrie Kellogg	K17EIV
4	Dave Koeger	N3SYO
4	Linda Montelius	KG7WMS
4	Christopher Wagner	K7CMW
2	Fred Mackaman	AC4NU

celebration and getting less than the recommended hours of sleep. Lying in bed trying to sleep and looking out the window and watching your neighbors put on an OK fireworks show didn't help.

The club has recently rented a storage unit for club equipment. The board is still working on finding a permanent home for the

general meeting and continued planning for the repeater sites is ongoing. All three items will require more from the annual budget along with rising costs of most goods and services, so the board will be assessing the increased expenses and possibly

recommending an increase in dues.



The next "major" club event is the annual picnic at 5 Mile Lake Park in August. This is another great opportunity to get together, swap stories and of course, eat some good food. Cheers.

## Dave Smith, KB7PSN is a Silent Key

Allan Hopwood / KB7THX

After a fall at home, Dave suffered cardiac arrest and could not be revived by EMTs. He died Thursday June 22.



Dave loved Mike and Key and was a very active lifetime member who has held most, if not all, club positions; he was the current Web Master. In addition to Mike and Key, Dave loved his family and frequently visited relatives in Oregon. Active to the very end he just returned from a trip to Seaside Oregon to attend the Sea Pac Ham Radio Convention, something he tried to do every year.

All of us who knew Dave will agree with his older brother

Leonard who wrote, "we will miss his deep caring for people and sense of humor." Dave was famous for his ultra dry quick wit. A really nice guy that will be missed by all who got to know him.

Some examples of his humor from his Face Book page.





# David Smith KB7PSN (SK)...

Gary Bryan / KG7KU



A Memorial Service was held for David Smith KB7PSN (SK) on July 2, at the Greenwood Memorial Park and Funeral Home in Renton. Dave was a long-time member of the Mike & Key, and he will be missed. The 'LAST CALL' portion of the ceremony was conducted by Manfred / AG7NR.



## License Upgrade

Congratulation to our Club Secretary, Jeanne / KE7MES. She upgraded to General in May. Next year, she needs to get to GOTA!

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## Hybrid Membership Meeting Changes

Bill Swick / KK7KCN

Continuing what Jason Nierenberg / KJ7GLB successfully started and the efforts of Paul Osborn / KK7EJW, Scott Gilyeat / KC7SAG, and Gil Drynan / W7GIL; the Mike and Key ARC has acquired new equipment to run the Hybrid

membership meetings. Within budget, we have purchased a laptop, two cameras, an extra monitor, and a casting device to create a professional looking hybrid meeting. There are a few kinks we are working out regarding ZOOM, mostly, but we no longer have hum, feedback, and noise in the system. We no longer are required to raise the volume of the Television while we lower the PA system volume and the reverse.

We hope you like the new look and feel of the hybrid meetings, but if you see areas needing improvement from your side, feel free to send me an email so we may continue to enhance the experience.

In addition to the above, Gil Drynan, along with his expertise and advice has donated a Mackie ProFvx3 mixer to the club, which has made all the audio improvements possible. Thanks, Gil!

## A Field Day Story

*Jeff Wandling / W7BRS*

On Friday night, I flipped on the 2-meter rig to see if some friends were on the repeater (K7LED) and sure enough I caught some traffic from Dean N7XS and others.

They were discussing the last-minute preparations on site at the Fort Flagler Wagon Wheel campground and the array of antennas they were setting up along the ridge. It brought back memories of when I had been there back in 2009.

One of the regulars back then, WA7HQQ (SK) was a motivator for me to work HF and he sure loved FD. I understand why. As a side story -- I remember visiting his shack when he put up his tower for 17 meter log periodic beam antenna -- I think practically all of the Mike and Key was there at his Seattle home to watch, talk, and be around for the launch of his antenna on his favorite band, 17 m.

Anyway, so on Friday night (now Saturday now, 1am, I signed with Dean, and the others) and hit the sack.

Saturday morning, as I was up early anyway, got a wild idea that I would drive out to Fort Flagler to say hello to the friends I had there and see what was happening. The Mike and Key club does a pretty good operation for FD. 6A is their classification. I expected to find the forest of antenna towers on the ridge along the bunkers. I was also hoping to see again "CW Tent" by the shoreline overlooking the sound.

I did not pack anything. I only intended to spend a few hours there. I set the mag-mount 2m antenna on the top of the Ford pickup, and headed towards Edmonds (from Fall City). A 2 ferry wait later, I was on the west side, in Kingston and I was heading by memory towards Flagler.

I talked my way into the campground at the registration booth ("Yeah, I'm with the club." And, I motioned to the antenna on the rig. She looked up and said "Oh you're one of those radio geeks." She waved me through). At the camp, the RV's were all neatly stacked side by side radially around the center fire-pit. I walked towards the picnic table and I recognized a fellow I had not seen since Visalia, Curt WR5J. What a surprise that was. Of all the gin joints in all the world...

I slipped through the trees, walked over the meadow towards the barracks and reminisced over the sight. Up ahead at a lone picnic table between two unused buildings was a ham, and he had a portable stick antenna on the table, and a tiny KX3. I introduced myself and we got to talking. He said he was just copying CW and trying to figure out what was being passed. I sensed he was recently bit by CW bug and that was the topic of the conversation. I went into sales mode and told him about the SST ("Friday and Sunday, every week"). Because I forgot my way, I asked him which direction the stations were. He got me set on the right road and I eventually found the SSB tents and

antennas. I made my hellos and saw more faces I recognized.

My thoughts then went to think "Which way down to the beach?" I found the road to the shore and there, as I hoped, there was the CW Tent. I figured that I would say a hello to Mike, N7WA and see what was happening there.

Two radios (K3) setup each with N1MM connected to one of the four antennas sprouted up along the edge of grass-line before the gravel beach. A spare seat was there so I took a place and looked through the mesh of the tent out towards the water. I couldn't hear the traffic on the radio, so I picked up a spare headphone (Mike sets this up perfectly so visitors and ops in waiting can listen and copy by pen/pad too).

Then the wild idea to go to FD took a turn -- I simply asked if there was a slot for me to work the radio later? And sure enough Mike (always generous), made some switching in the schedule to fit me in. I would return for my shift at 6pm.

The moment I slipped on the headset and started listening it was like I knew this was right. I was on the 15-meter rig, and I had N1MM in front of me and pressed F1. Then the next hour on 15m was about as much fun as it can get. One station, then another, and a few repeat AGN? requests but all of the calls I think were good. The anxiety was gone, the fun of taking calls and adding a point here, and another point there for the club was fun. Then at the end of the hour I switched

places to the 20-meter rig and this band was really on fire. I had a few bursts of stations calling, nearly all were QRS to my 19 wpm. It went by fast and by 8pm I was done and the new ops were ready to take over.

I think I logged about 2-3 dozen Qs in total. I would have done better if I could have copied on first listen. But that's OK. FD is supposed to be fun and not necessarily a speed test.

I made my farewells and proceeded to drive up the hill back to the road and I stopped to check my phone (for messages from the XYL. She understands this too well and expected me to linger there past evening anyway). But I

did get a text message from a friend on that side of the water who suggested I stop by for a glass and to swap stories of things that are happening.

So that's what I did and we talked for a while -- about upcoming CW contests and working CW. The minutes went by fast and soon it was truly dark out. Back on the road and heading home.

I cycle through three main hobbies. Fly fishing, Motorcycles, and Ham Radio. Among all of these the one activity that always leaving me glad is Ham Radio. I may not always hook into a nice rainbow, but I can always make contact on radio. And riding through the country side is always

fine, but inevitably requires some stop and go traffic as I re-enter the urban gridlock. But ham radio, no matter where I am always delivers so much satisfaction and joy.

As I told my friend on his deck that evening, I am thankful for the opportunity to be on the radio and working CW Sunday morning, I took my To-Do list for the weekend chores and started to whittle them down. I was done with the radio for the time being, getting things done that needed to be done. Monday morning came too fast. I will have to re-tune my brain for work in a moment. I wanted to drop this note now while the memory was still fresh.

## Tower Raising Day in Graham

**Bob Huntsman / N6CHU**

I am constructing a 60-foot freestanding aluminum tower, topped with a Cushcraft A3S and a HAM IV rotator.

It is a Universal (tilt-up, not a crank-up) tower, as featured in the DX Engineering catalog (pg.79). The concrete base (almost 4 yards) was poured on 11/17/22.

I have set Sunday, July 23<sup>rd</sup>, at noon, for the raising.

Club members are invited to witness, kibbitz, offer advice, etc. A friend from the S.F. Bay Area (W6RJM) is coming up to assist, and a crane operator is on standby.

If someone has access to a boom truck that can reach over the garage and connect to the tower at about the 30' level, that would eliminate the need for crane services.

Please RSVP. to [n6chu@arrl.net](mailto:n6chu@arrl.net) for directions and address if you're coming. There will be beer.

## Venue for Upcoming General Meetings

**Manfred Bester / AG7NR**

The Facilities & Publicity Committee has been engaged in finding new venues for our General Meetings and VE sessions. Please mark your calendars for the following meetings:

Kent Senior Activity Center,  
600 E Smith Street, Kent, WA 98030  
Directions: <https://mikeandkey.org/hybridKSC.php>

July 15, 2023  
Sept. 16, 2023

The Kent Senior Activity Center seems to fit our requirements in terms of room size, parking, rental fees, regular access, etc. This facility is largely unused on Saturdays, as virtually all their activities



take place during the week. A custodian will be on site to setup the room per our instructions.

If you have comments about the Kent Senior Activity Center from last month's meeting, please pass them along to your Club Board.

## 2023 Radio Camp and Field Day Experiences

*Manfred Bester / AG7NR*

This year was my third participation in the Mike & Key Field Day at Fort Flagler, and my first Radio Camp. My main goal for the latter was to try out my newly assembled, portable satellite station in an open setting, away from urban obstructions and background noise. Of course, I was also looking forward to the social aspects and helping to make our Field Day operation successful. I had made reservations for staying at an Airbnb in Nordland, just a few miles outside the park. This was intended as a backup to the Wagon Wheel but became the prime option when I ran out of time to prepare the camping part of the trip. My car ended up filled with antennas and other equipment, so I was glad to have more than a small tent to stay at. But more on this later.

I left Seattle Monday afternoon (June 19), catching the ferry to Bainbridge Island in pouring rain, and arrived at Fort Flagler in the early evening to say hello to everyone. On Tuesday I setup my satellite station at the Wagon Wheel to give it a try. These days many amateur satellite operators are quite active on GreenCube, an Italian-built CubeSat also known as IO-117. It features a 1200-Bd digipeater with a single channel 435-MHz up and downlink. Its orbital altitude of about 5,800 km allows working DX from the PNW area to all continents except Antarctica. Passes can be as long as 78 minutes.

GreenCube had a convenient pass in the afternoon and cleared the western tree line around 4:40 pm. The first QSO was with UA9MRS. Several JA and U.S. stations followed. I truly enjoyed the technical discussions with Curtis N7MWC and Mike KJ7VID about stepper motors driven by an Arduino microcontroller. It appears I still need to do some development work to improve motions in elevation.



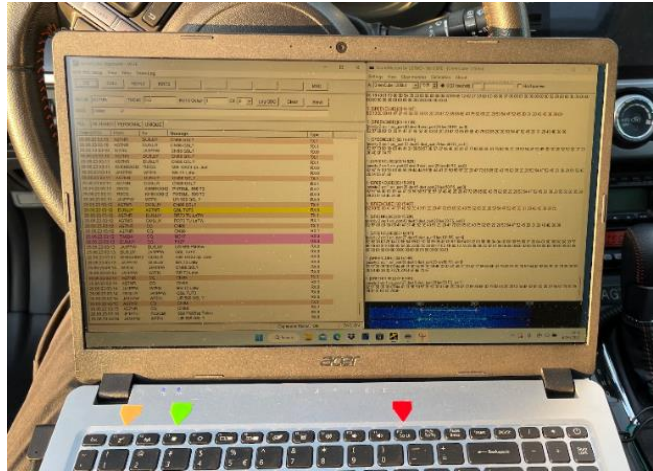
Over the next few days, I setup for GreenCube passes near the entrance to the Bluff and at the western end of the park to work some DX stations.

An IC-9700, a Powerwerx DC supply, dual GPS receivers, a Mortty CW keyer, and a USB hub were integrated into a shallow rack case that fits into the trunk. The system is powered by a Goal Zero Yeti 1400.



My GreenCube station requires two laptops – a MacBook to run my satellite tracking software (SatTrack) for controlling the radio and the antenna rotator, and a Windows laptop to run the unique GreenCube SoundModem and Terminal programs.

The GreenCube packet radio programs were developed by UZ7HO: Terminal (left) and SoundModem (right).



For GreenCube I use two right-hand circular polarized WiMo UHF X-quads with a combined gain of about 17.5 dBic and 37.5 W (50%) uplink power out of the radio.

Highlights of my GreenCube DX experiments were QSOs with stations in the Pacific (KH6WI, KH6KK/KH2) and in Asia (DU9JJY, VR2XMT,

HL4BPL, BX1AD, BH3GIS) near an unobstructed horizon from the northwestern tip of Fort Flagler (Port Townsend is across the water). With New Zealand in full view during the last 5 minutes of several passes, multiple stations in the US were waiting for one of the few ZL stations to come on the air, but no luck so far.

I was also able to collect a few new European countries from the location near the Bluff, for a total of 110 POTA satellite QSOs outside of the Field Day activities. My setup created quite some interest with park visitors. One of them was so enthusiastic that he wanted to get his amateur license after we chatted for almost half an hour.





The satellite station was also deployed at the Field Day site for bonus points. However, it was difficult to read the screens in bright sunlight. Apparently, a few logistics improvements need to be made for next time.

The second UHF antenna was replaced with a VHF cross-Yagi to allow for both VHF or UHF simplex and VHF/UHF full-duplex QSOs.

Below is a screen shot of the first appearance of K7LED on GreenCube that resulted in bit of a pileup from JA and SP. Columns are Date/Time, From Call, To Call, and the transmitted/received message. It often takes multiple transmissions (light brown rows) to see your own packets digipeated (white rows). Packets directed to your own station are shown in yellow, and CQ calls in pink. Messages are purposely kept short to reduce the probability of packet collisions.



24.06.23 20:53	K7LED	ES4RM	CN88 QSL?
24.06.23 20:53	K7LED	ES4RM	CN88 QSL?
24.06.23 20:53	K7LED	ES4RM	CN88 QSL?
24.06.23 20:53	JE3HCZ	JA9KRO	RR Logged LoTW eQSL TU 73
24.06.23 20:53	JR6QFV/9	KI0KB	599 PM86cb
24.06.23 20:53	SP6IWQ	K7LED	599 JO80HK
24.06.23 20:53	JA0FSB	K7LED	599 PM97
24.06.23 20:53	SP6IWQ	K7LED	599 JO80HK
24.06.23 20:54	JA6SZV/1	K7LED	599 QM05at
24.06.23 20:54	JE2DIR	K7LED	599 PM84rr Shizuoka
24.06.23 20:54	JA0FSB	K7LED	599 PM97
24.06.23 20:54	JA0FSB	K7LED	599 PM97
24.06.23 20:54	K7LED	JA0FSB	RR73 TU LoTW
24.06.23 20:54	JA0FSB	K7LED	599 PM97
24.06.23 20:54	JN2QCV	K7LED	599 PM85
24.06.23 20:54	K7LED	JA0FSB	RR73 TU LoTW
24.06.23 20:54	R7LP	JE1LFX	KN96 R?
24.06.23 20:54	K7LED	JA0FSB	RR73 TU LoTW
24.06.23 20:54	JF6BCC	K7LED	599 PM53jv GM
24.06.23 20:54	K7LED	JA0FSB	RR73 TU LoTW
24.06.23 20:54	R7LP	JE1LFX	KN96 R?
24.06.23 20:54	K7LED	JA0FSB	RR73 TU LoTW
24.06.23 20:54	SP6IWQ	K7LED	599 JO80HK
24.06.23 20:55	K7LED	JA0FSB	RR73 TU LoTW
24.06.23 20:55	K7LED	JA0FSB	RR73 TU LoTW
24.06.23 20:55	K7LED	JA0FSB	RR73 TU LoTW
24.06.23 20:55	KH6WI	SP6IWQ	BL11 Hawaii
24.06.23 20:55	R7LP	KH6WI	KN96 R?
24.06.23 20:55	JN2QCV	K7LED	599 PM85
24.06.23 20:55	JA6SZV/1	K7LED	599 QM05at
24.06.23 20:55	JE3HCZ	CQ	PM85ac SHIGA
24.06.23 20:55	KH6WI	R7LP	RR BL11 Hawaii
24.06.23 20:55	KI0KB	JR6QFV/9	R73 599 In Log

Once JA was out of reach, traffic was largely within the U.S. The next screen shot shows a valid Field Day QSO with W2GDJ that gave us 100 bonus points. We also collected several other Q's in SSB and FM voice modes via RS-44 and TEVEL-5, respectively.

24.06.23 21:15	K7LED	KI0KB	6A WWA QSL?
24.06.23 21:15	K7LED	KI0KB	6A WWA QSL?
24.06.23 21:16	N9LQ	KH6CE	QSL TU 73
24.06.23 21:16	W2GDJ	K7LED	1D ENY QSL ?
24.06.23 21:16	K7LED	W2GDJ	RR73 TU LoTW
24.06.23 21:16	WA2NDV	KC5TT	UR 599 1D NLI
24.06.23 21:16	K7LED	W2GDJ	RR73 TU LoTW
24.06.23 21:16	N7GV	CQ	CQ FD
24.06.23 21:16	K7LED	W2GDJ	RR73 TU LoTW
24.06.23 21:16	W6TRW	KH6CE	5A LAX DM03 California QSL?
24.06.23 21:16	K7LED	W2GDJ	RR73 TU LoTW
24.06.23 21:16	K7LED	W2GDJ	RR73 TU LoTW
24.06.23 21:16	K7LED	W2GDJ	RR73 TU LoTW
24.06.23 21:16	KH6CE	W6TRW	1A PACC QSL
24.06.23 21:16	W2GDJ	K7LED	1D ENY QSL ?
24.06.23 21:16	K7LED	W2GDJ	RR73 TU LoTW
24.06.23 21:16	K7LED	W2GDJ	RR73 TU LoTW
24.06.23 21:16	K7LED	W2GDJ	RR73 TU LoTW
24.06.23 21:17	W6TRW	W2GDJ	5A LAX DM03 California QSL?
24.06.23 21:17	K7LED	W2GDJ	RR73 TU LoTW
24.06.23 21:17	K7LED	W2GDJ	RR73 TU LoTW
24.06.23 21:17	KC5TT	N7GV	KK5 10A STX EL29
24.06.23 21:17	N9ZTS	K4BFT	EN82 QSL?
24.06.23 21:17	K9UO	K4BFT	1D IN EN70
24.06.23 21:17	W6TRW	W2GDJ	5A LAX DM03 California QSL?
24.06.23 21:17	W2GDJ	K7LED	RR QSL 73



So, what's up with the goat, you might ask? I met this rather curious creature when I entered the driveway to the Mystery Bay Inn for the first time. This Airbnb is a rather unique and quaint place to stay. David, the owner, is very cheerful and welcoming. The goat often guarded the entrance door but would also pass through when both the front and patio doors were left open. David advised that I should not leave anything on the kitchen counter that might become a "target of opportunity." I figured I should always keep my bedroom door closed. David and I had some good laughs about this all.



It turned out that Carl N7CJR had also booked the same place for the Field Day weekend. He invited David who then came to the Wagon Wheel to see what we were up to with our "beep-beep-beep" communications. These stories created quite some amusement when shared around the campfire.

Overall, I had a great time during Radio Camp and Field Day. I was back home on Monday evening (June 26). The ferry trip back to Seattle in beautiful weather never gets old.

Many thanks to all who helped turning this event into such a memorable experience again, including members of the Bonus Points Team that I chaired, and the CW Beach Team that was spearheaded by Mike N7WA as so many times before.

The culinary delights provided by Chuck WA7EBH (grill and buffet items), Mike N7WA (smoked salmon), Toku AD7JA (Japanese specialties), Bill KK7KCN (pulled pork), and Dawn N7VWH (s'mores by the campfire) were just outstanding!

## Field Day Digital Station Summary

Mike Deal

K7LED's Contest Summary Report for ARRL-FD  
 Created by N3FJP's ARRL Field Day Contest Log  
 Version 6.6.7 www.n3fjp.com

Total Contacts = 367  
 Total Points = 734

Operating Period: 2023/06/24 18:20 - 2023/06/25 17:54

Total op time (breaks > 30 min deducted): 15:44:45  
 Total op time (breaks > 60 min deducted): 15:44:45

Avg Qs/Hr (breaks > 30 min deducted): 23.3

Total Contacts by Band and Mode:

Band	CW	Phone	Dig	Total	%
40	0	0	74	74	20
20	0	0	201	201	55
15	0	0	91	91	25
10	0	0	1	1	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>367</b>	<b>367</b>	<b>100</b>

Contacts				Score Statistics	
Bnd Mo...	Country	Oper...	Init...	Total CW Contacts	0
20 DIG	USA			Total Phone Contact	0
20 DIG	USA			Total DIG Contacts	367
20 DIG	USA			Total QSO Points	734
20 DIG	USA			QSOs / Hr (Last 20 m)	0
20 DIG	USA			QSOs / Hr (Last 60 m)	0
20 DIG	USA				

DX	3	5	7	0
DX	DE MDC	AR NTX	AK NV	CO MO
1	EPA WPA	LA OK	AZ OR	IA ND
CT RI	4	MS STX	EWA UT	KS NE
EMA VT		NM WTX	ID WWA	MN SD
ME WMA			MT WY	Canada
NH	AL SC			AB ONE
2	GA SFL			BC ONN
	KY TN			GH ONS
	NC VA	6	8	MB PE
	NFL VI	EB SCV	MI WV	NB QC
ENY NNY	PR WCF	LAX SDG	OH	NL SK
NLI SNJ		ORG SF	9	NS TER
NNJ WNY		PAC SJV		
		SB SV	IL WI	
			IN	

**K7LED    6A    WWA**

12:38:16 PM  
19:38:16 UTC

## MIKE AND KEY ANNUAL SUMMER PICNIC

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

**When: Saturday August 19th, 2023**

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

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

It looks like the weather is warming up and we should have a great day for the picnic this year. We always have a good time socializing with club members and their family. Yes that's right, be sure to bring your family or significant other. My fantastic wife, Annie, and I are again chairing this affair.

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 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](mailto: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. So, the best way is to contact me at [n7nw.hal@comcast.net](mailto:n7nw.hal@comcast.net) or 253-549-4178 (email is preferred). I need your name, call, how many in your party and what side dish you might be able to bring. I want to be sure we have enough burgers and dogs for all.

Hal Goodell and Annie Rosello, Picnic Chairs

**Hope y'all come!!**



## Recipe for success at GOTA

George Thornton / AE7G

I have been running the Mike and Key GOTA station for I don't remember how many years.

The rules set by ARRL concerning GOTA bonus points have always favored GOTA over other stations. In this respect ARRL is favoring the introduction of radio sport in a community (both HAM and non-HAM) that has not been involved in or interested in HF operations. This policy is consistent with the multi-purpose nature of Field Day. It is not simply a contest, Field Day promotes HAM radio and in particular HF activity and visibility in the general community.

In the past, the ARRL set limits on how many points can be awarded to GOTA. We were limited to a maximum of 500 contacts. Multipliers were available but no single operator could have more than 100 contacts. There were special bonuses for children making a successful contact, but those were limited to five children with a total maximum bonus of 100 points.

Applying this approach, a GOTA station had the potential maximum potential of roughly 1400-1500 points. In recent years, our GOTA station has reached or come close to realizing its maximum potential.

I did not become aware that rules had changed for GOTA until after I arrived at the Wagon Wheel.

I learned that the new ARRL GOTA rules removed restrictions on our ability to generate points. We were no longer limited to a maximum of 500 contacts. In addition there was no limit on how many contacts each operator could log. Most importantly, GOTA was awarded five points for each contact.

I have always used my K3 in the GOTA tent. This year I acquired the new Elecraft K4 a few months before the event, this was a retirement present to myself. I was donated a 32 inch HD TV which I was able to use as a remote monitor. Add to that matching speakers and Kpod, and we had a visually appealing station for new users.



Working in a multi-operator environment is a challenge to transceivers. We are required to have all stations within a 1000-foot circle, so adjacent station interference is always an issue. I don't know much about other transceivers, but Elecraft units have always been near the top of the list for radios that work well in a crowded environment.

Leading up to this event I had heard conflicting advice on whether the K4 could equal the K3's ability to handle a crowded environment. The K3 is a superheterodyne radio and relies on crystal filters to keep out adjacent noise. By contrast, the K4 is at heart a software defined radio. As it turns out, the K4 is just as effective as the K3 working in close quarters. I noticed no difference.

We did much better than in previous years. Where previously we had barely been able to make 500 contacts, this year we logged 728. So why did GOTA do so much better? Band conditions on 20 meters were better. The band, which normally closes down in the late evening, was still active at 3 AM.

The K4 was a significant improvement over the K3. Our audio on transmit was very effective. We had excellent signal reports and everyone seemed to be able to hear us. That allowed us to occupy a frequency and call, and we were frequently at the center of a pileup. The receive audio on this unit is also significantly improved over the K3. This made it easier for new operators to hear and respond to calls.

We had a lot of operators eager and willing to work. Many of them had or developed a natural talent for radio operation.

## July 2023

We were able to get operators willing to work late at night, and early in the morning. We had very little down time compared to previous years.

We had honed our antenna raising and setup procedures so we had excellent SWR from the beginning. We were using a Force 12 C3S antenna; this antenna as I understand it provides a two element Yagi on 20 meters. We had it well-tuned with very low SWR throughout.

In the end GOTA's contribution to team Field Day success was greatly enhanced this year. While some might feel the new ARRL rules for GOTA may be

unfair, the rules are the rules and we did not make them. This is a team event and as one of the most competitive Field Day stations in the nation, we work together to make the event successful for all of us.

Where do we go from here?

If the new GOTA rules remain in effect, more attention could be given to improving the GOTA station. Instead of an effective 2 element Yagi on 20 meters, mounted on an Army surplus portable tripod mast, we could benefit from access to a tower with a higher gain antenna. I am also told one of our members has access to a portable tower.

## K7LED Relay

Next year I am planning to add a receive-only vertical antenna. We are going to experiment with diversity receive using the K4D's capabilities.

I want to thank everyone who participated in making GOTA a success. In particular I want to thank Gary Bryan for his substantial contribution over several years. Gary has been part of our operations for several years now. Also thanks to our setup and teardown team including Carl N7CJR and David W7DAO. They were a professional and effective team.

## CW Beach Wrap up

**Michael Dinkelman / N7WA**

A lot has been said about Field Day in this *Relay* already. I just want to summarize the happenings at CW Beach. In the past year, we lost two prime members due to health and relocation. Another had family commitments. Hal / N7NW wasn't expected as he was taking care of Annie. In essence, we dropped from having so many ops last year, that I didn't put myself in the schedule, to having the barest of possible crews this year. In addition, our setup/teardown crew was greatly reduced. In summary, we were looking to be pretty short-staffed this year and my expectations were not high.

What happened instead? We had the antennas setup in record time (2PM Friday). During FD itself, with basically 5 ops, we were operating two hours on and three hours off. We did have a visiting operator drop by and we put him to work for a shift. I knew the early morning was going to be bad. Two of the five ops had to leave, dropping us to three. I let everyone left know that that they should just drop the operating and go get some sleep if they needed too. There ended being 2-3 hours when one or both radios were unmanned for short periods.

And yet, we had a great outcome. We destroyed the expectations I had going in. I

want to thank all the folks who made it happen. Curt / WR5J, Manfred / AG7NR, Tim / W7EEE, Bob / N6CHU, Jeff / W7BRS, Chuck WA7EBH, Toku / AD7JA. That was our crew and two of them do not do CW at all. I appreciate you all.

Our results (Beach alone)

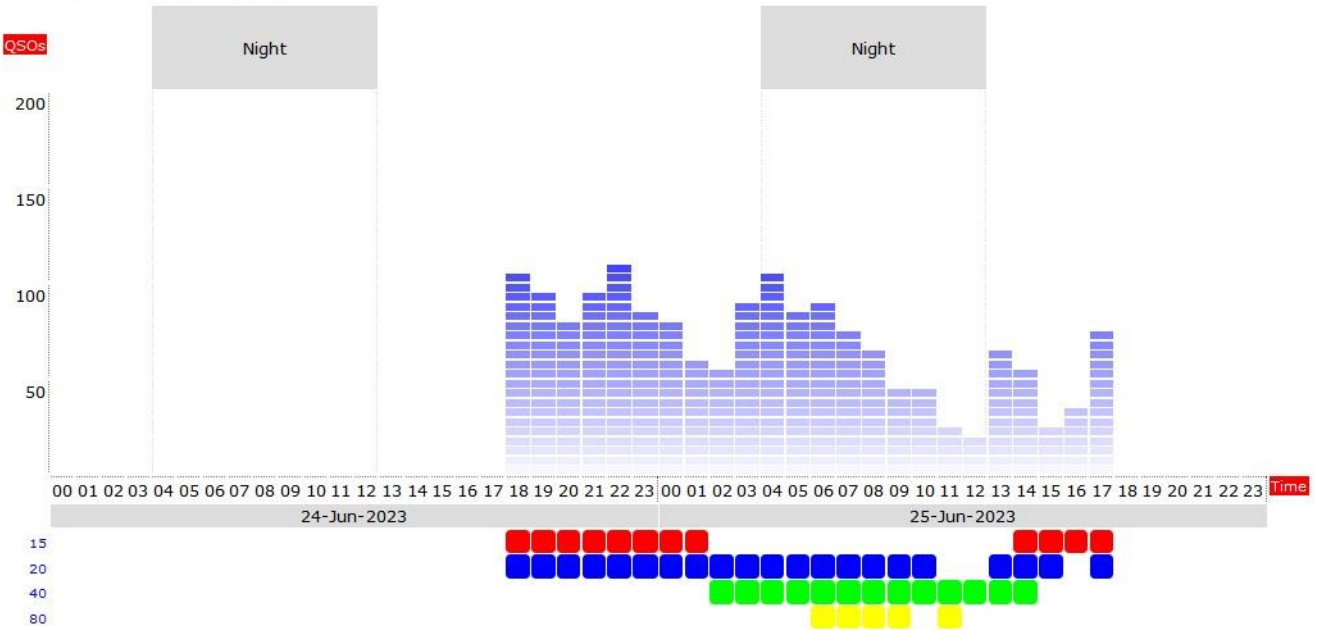
Band	QSOs
3.5	65
7	428
14	763
21	332

Total 1588

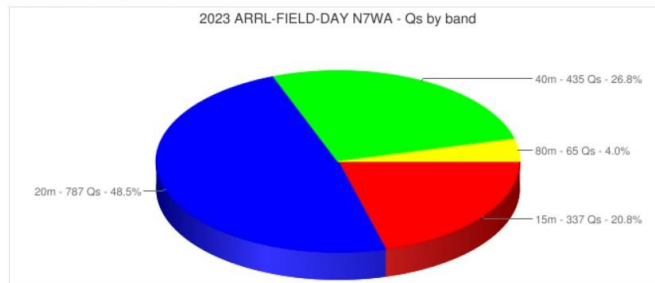
To my team – great job!



### Qs by hour



### Qs by band



### Countries

#	Cont.	Country	Distance, km	QSOs										Bands			
				CW	DIG	SSB	160	80	40	20	15	10	All		%		
1	SA	CE Chile	9980	1							1				1	0.1	1
2	EU	EA Spain	8600	1							1				1	0.1	1
3	AS	JA Japan	7660	1						1					1	0.1	1
4	NA	K United States	2830	1544				56	412	762	314			1544	95.1	4	
5	OC	KH6 Hawaii	4190	3					3					3	0.2	1	
6	NA	KP4 Puerto Rico	5970	3						1	2			3	0.2	2	
7	SA	P4 Aruba	6320	1						1				1	0.1	1	
8	SA	PJ2 Curacao	6320	1					1					1	0.1	1	
9	NA	VE Canada	3380	67				9	17	21	20			67	4.1	4	
10	NA	XE Mexico	3490	2					1		1			2	0.1	2	

## 2023 IARU Test

Michael / N7WA

It's unfortunate that two of my favorite operating activities usually occur within three weekends of each other and with a national holiday in-between. That would be Field Day and the IARU. This year's IARU was also a World Radio Team Championship (WRTC) event hosted by Italy. With that, there were dozens of the world's best contesters vying for top dog status during the IARU.

Personally, I was looking forward to being a remote member of the Curacao IARU Headquarters team (PJ2HQ). There were two ops on the island, and two of us were going to remote in. HQ teams are a contest multiplier, promising fast and furious action. Unfortunately, the remote radio developed a hardware issue Friday night just before the contest and remote operation was no longer in the cards. I was left trying to figure out a local option with just 6 hours to the start. I decided to do a Low Power Single Op, CW only.

Conditions were mixed. The solar cycle is showing what can happen, even if it's a bit messier than expected. I started out on 40m, working Asia and domestically. After

about 70 contacts, 20m came alive with the rising sun but was still mostly domestic. No hint of DX. I would check 15m looking for something to happen but nothing really rolled in. Even worse with 10m. It was a grind through the day.

In the late afternoon and early evening, things started to change. Europe started rolling in on 15m even though it was midnight and early morning in Europe. I couldn't run with only 100 watts but I was able to Search & Pounce up and down the band picking up stations and multipliers (those HQ stations plus zones). I was able to work many of the WRTC stations which had special callsigns (I44 – I46). They held no special points, just excitement!

This 15m surprise continued long into day-break in Europe. With European daybreak, the Europeans went to 20m and I was able to get action there too. On 20m, with a 5 element Yagi, I was able to run and contacts piled up. I kept checking for a sneaky opening to Asia on 15m but one never occurred. Still, there was plenty of fun to be had on 20m and I ran Europe and, later, Japan.

As the local early morning progressed and 40m started opening to Asia, it was slow and steady. I got rummy and took a nap at 2am. Wished I hadn't now. Just a few more Q's and I would have made my 300K goal. I also could have used an 80m antenna for a few multipliers but, due to the short notice, didn't have the chance to set it one up.

It the end, it was a fun test. It would have been more fun in Curacao or locally with High Power or running Assisted but those are the chances you take. I had one interesting contact that stands out. VY0ERC called in and gave me a zone of 75. I was completely confused. There is no zone 75 in Canada. I kept asking for repeats and the exchange stayed the same. I checked it after the test in QRZ. If you are interested, you can check it too. I learned something new.

My final results pending log checkin:g

Band	QSOs	ITU	HQ
7	170	13	7
14	508	24	21
21	104	15	17
28	3	2	1
Total	785	54	46

Score : 298,900



**Mike & Key ARC – General Membership Meeting**

Date/Time: June 17, 2023, 10:00 Pacific  
Meeting Place: [Kent Senior Center, 600 East Smith, Kent, WA](#)

Attested to by Jeanne Yearian, Secretary

Presentation on the Myths of HF by Richard Clark 10:00 AM

President, Carl Reynolds N7CJR: Call to Order (TBD Pacific) 11:00

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

Motion to approve minutes (Dave KB7PSN): Seconded (Phil K7PIA), approved with no dissention

**Reports**

Chairman of the Board- Manfred Bester AG7NR – no report.

President- Carl Reynolds N7CJR – no report

Vice President- Paul Petach KI6QXV: New membership applications were presented. The following candidates were approved by the Board and General Membership.

First Name	Last Name	Callsign
Mark	Shecter	KK7LMP
Allen	Brown	KK7LUL

Secretary: N/R

Treasurer: Accounting status. Please pay dues in person or online. Check out the website for more information. 302 members. The Swap Meet audit results are noted below.

Activities Manager: David Okrent W7DAO Send emails with ideas for future presentations to David. The presentation for July will be on Raspberry Pii

Radio Officer: Hal N7NW. N/R.

**Standing Committees**

Technical & Special Interest – Ash Thornton KK7GFG - No report.

Public Service – Robert Grinnell KD7WNV Big Foot is coming up in August. This is a 5-day, 200 mile run around Mt. St. Helens, August 11-15. Mike & Key members support all the Aid Stations along the run. See Robert for more information.

Education & Training – Jeff Hite N7FCC No report.

Membership – Manfred Bester AG7NR No report.

Facilities & Publicity – Alex Malesis W7AEM .

Repeater (Radio Officer by Default) - Hal Goodell N7NW. No report.

Publications & IT Support

Relay Editor – Mike Dinkelman N7WA - Send in articles and reports

Web Master – Dave Smith KB7PSN N/R

**Essential Committees**

Audits: Scott AG7T reported the 4-member Audit Committee met on June 14 and reviewed the financial records of the club. Thanks to Scott KC7SAG for his organization of the materials. The Committee did not find any issues with the Swap Meet’s financial records.

Awards: N/R

Finance: Swap Meet audit – see above

Strategic Planning: N/R

**Event Committees**

Swap Meet: Fairgrounds contract has been received, signed and returned with a check for the down payment for 2024: N/R

Field Day: David WA7DY. Status update – Be sure to check in at the park entrance. Mention Mike and Key or bring your Discover Pass. Set up starts at 10:00 AM on Friday. Be sure to wear safety gear: hard hat, closed toe shoes, gloves. For those planning to camp at the Wagon Wheel, Dick said 27 campers have registered so park close to your neighbor. Simplex frequency 146.58. Need CW ops for CW Beach. George is back at the GOTA tent – and it is going to be better than ever. If you have not used HF before or HF this year, stop by for points!

Picnic: 9AM-2PM, August 19, 2023, at 5 Mile Lake Park in Auburn. Submit ideas for activities to David Okrent W7DAO.

**Old Business:**

Carl N7CJR emailed the Department of Transportation about the I5 outreach and has not heard back from them. This concerns the proposal by Robert, KJ7CBO, to set up a Mike and Key outreach event (free coffee + Ham Radio) at the I5 Rest Stop south of Federal Way

heading north. This would be a great place and chance for people in the club to join together and talk radio, talk on the radio over a good cup of joe! The Board will follow up! More to come.

POTA update: Robert Grinnell KD7WNV: Past Field Day log information cannot be verified as accurate. Going forward we will pay more attention to log details.

New Business: N/R

### Mike & Key ARC – Board Meeting via Zoom

Date/Time: July 5, 2023, 18:45 Pacific

#### Participants:

Carl Reynolds, N7CJR (President)  
Paul Petach, KI6QXV (Vice President - not present)  
Jeanne Yearian, KE7MES (Secretary)  
Scott Gilyeat, KC7SAG (Treasurer)  
David Okrent, W7DAO (Activities Manager - not present)  
Hal Goodell, N7NW (Radio Officer)  
Jeff Hite, N7FCC (Trustee #1 - not present)  
Ash Thornton, KK7GFG (Trustee #2)  
Robert Grinnell, KD7WNV (Trustee #3)  
Manfred Bester, AG7NR (Trustee #4 - Board Chair)  
Alex Malesis, W7AEM (Trustee #5)  
Michael Hansen, KG7MX (Volunteer Counsel)  
Mike Dinkelman, N7WA (Relay Editor)  
Steven Cook, KD7IQL (Visitor)  
Michelle Cross, WB7AYU (Visitor)

#### Agenda:

Call to Order (19:00 Pacific)

Establishment of quorum (Secretary): Quorum present  
Approval of previous Board meeting minutes: Motion: Carl, N7CJR; Second: Scott, KC7SAG: Voted Yes 100%

#### Reports

- Chairman of the Board (Manfred, AG7NR): No report
- President (Carl, N7CJR): Enjoyed Field Day
- Vice President (Scott, KC7SAG, standing in): New membership applications (1): John Costanza, KG7AUP; Approved by the Board
- Secretary (Jeanne, KE7MES): No report
- Treasurer (Scott, KC7SAG): Membership status: 303 active, 5 were removed, 1 requested to be removed, 2 new members last month, 1 Silent Key; Accounting status: Books are in order; Special expenditures for hardware to support Zoom meetings, Covington Life Storage rental, plus shelves and locks for totes in storage
- Activities Manager (David, W7DAO - not present): No report

Good of the Order: N/R

#### Next Meeting

July 15, 2023, 10:00 AM, Pacific, [Kent Senior Center, 600 East Smith, Kent, WA](#) and remotely via Zoom  
Adjourn Motion made (Gil W7GIL), seconded (Ivy WA7IVY), approved Time 11:56 AM

- Radio Officer (Hal, N7NW): Repeaters are working well, trying to get up to the repeater sites at Tiger and Gold Mountains; 146.820 repeater will be used for EmComm activities; WADNR sent a large bill (in error) to previous repeater site managers; Dues for site leases were paid, but received another invoice from WADNR, also in error; Evergreen Intertie equipment operated by BEARS, K7NWS, should be removed from Tiger Mountain; Paperwork to be updated with WWARA; Scott, KC7SAG: First PSE electricity bill for Tiger Mountain has been paid; Hal, N7NW: May need to start working on getting another Radio Officer nominated within a year; Check within the Club to see who may be qualified; Michael, KG7MX: Hal may want to document responsibilities for the Club's handbook and for a potential successor

#### Standing Committees

- Technical & Special Interest (Ash, KK7GFG): Difficult to perform committee duties at present time due to personal circumstances; May want to reach out to Robert Christian, KJ7CBO (Net Host Manager), to ask for support of the committee work
- Public Service (Robert, KD7WNV): July through early Sept. is public service season; Volunteer work is a bit down compared with what is needed; Will provide some information for the Relay
- Education & Training (Jeff, N7FCC - not present): No report
- Membership (Manfred, AG7NR): Received the sad message during Radio Camp / Field Day week that David Smith, KB7PSN, became a Silent Key; Memorial service was held on July 3 in Renton; He will be sorely missed; Dave was a former Mike & Key President and winner of the prestigious "Pop" Brown Award; He handled our Club's IT support including email, web pages, social media, data management, and background processing
- Facilities & Publicity (Alex, W7AEM): Any feedback from the last General Meeting at the Kent Senior Activity Center? Hal, N7NW, noted

that in the 1970's Kent was the original seat of the Club; Should try to find a larger room; City of Kent facilities reservation process: See Kent Facility Rental Guide; Salvation Army has a new facility in Bellevue for rental at \$60/hour; Need to work on a survey to get feedback from the membership; Will need to increase the Club's revenue to pay for additional expenditures, such as storage, repeater costs, etc.; Michael, KG7MX (Volunteer Counsel), suggested that the Treasurer not accept any membership dues past the current year until the Board has discussed and voted on a new revenue scheme

- Repeater: See above

Publications & IT Support

- Relay Editor (Mike, N7WA): Requesting articles for the July Relay issue
- Web Master (Vacant): Need to find a new web master and IT support lead; Discuss at the next General Meeting

Essential Committees

- Audits: N/A
- Awards (Scott, KC7SAG): Awards were ordered and will be handed out at the Picnic; Award Committee members: N7XS, KE7JIM, K7ANE; Manfred, AG7NR, to reach out to the committee as to who will be the new chairperson after KB7PSN became a SK; Awards to be presented at the picnic: Swap Meet and Field Day MVP; 25/50-year Membership, Pop Brown and Past President
- Finance (Scott, KC7SAG): Swap Meet audit report (see June General Meeting)
- Strategic Planning: No report

Event Committees

- Swap Meet (Hal, N7NW): Will start planning the 2024 Swap Meet in Oct. 2023
- Field Day (David, WA7DY): No report
- Picnic (Hal, N7NW): To be held on Aug. at the Five Mile Lake Park in Auburn, WA. See article in the July 2023 Relay

Old Business

- Carl, N7CJR: I-5 free-coffee event: Waiting for a response to the application from WADOT
- Carl, N7CJR: Award for the boy/girl scouts' help at the last Swap Meet: Letter of Appreciation plus finance a pizza party; Will talk to Tim, WV7TIM

New Business

- IT support (Club web page, Google docs, background processing, Facebook, etc.): Scott, KC7SAG, already offered assistance; Carl, N7CJR, can also get in touch with Dan, KG7DAB
- Rental for storage of online data (Option: Microsoft 365 with 1 TB drive): Scott looked into this already, waiting for direction from the Board; Scott was authorized by the Board to apply for an account and explore discounts for charitable organizations (see Policy #20); Each of the Officers could also have an account
- Handling of sensitive personal information: Redact personal information on membership application forms displayed during General Meetings
- Financial planning: Draft up a 2024 budget and then determine how we can pay for this (provide rationale)
- Michael, KG7MX (Volunteer Counsel): Setting of the membership fees is a duty of the Board, to be ratified by the Membership; Manfred, AG7NR: Suggested to create a policy that clarifies prepayment for future years with possibility to grandfather-in already paid dues; Will also provide guidance to the Treasurer

Good of the Order

- None

Action Items

- Carl, N7CJR, to touch base with Dan, KG7DAB, to discuss succession for the Club's IT support
- Carl, N7CJR, to discuss with Tim, WV7TIM, how to best reward his boy/girl scout team for helping at the last Swap Meet
- Ash, KK7GFG, to contact Robert, KJ7CBO, about supporting Technical & Special Interest Committee work
- Scott, KC7SAG, to draft a preliminary 2024 budget to get an early estimate for upcoming expenditures and revenue
- Scott, KC7SAG, to explore options for online data storage, such as Microsoft 365
- Manfred, AG7NR, to draft a policy to define handling of prepaid membership dues for upcoming years
- Manfred, AG7NR, and Alex, W7AEM, to work on a membership survey to support selection of a facility for General Meetings
- Manfred, AG7NR, to contact the Awards Committee members in preparation for the hand-out of awards at the August picnic



## July 2023

- Hal, N7NW, to assemble a list of responsibilities and duties for the Club's Radio Officer (in preparation for recruiting a potential successor)

### Next Meeting

- August 1, 2023, 18:45 Pacific (Remotely via Zoom)

## K7LED Relay

### Adjourn

- Motion to adjourn by Carl, N7CJR; Seconded by Robert, KD7WNV at 21:57 Pacific



### Contact Us:

Email: [info@mikeandkey.org](mailto:info@mikeandkey.org)

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

Website: [www.mikeandkey.org](http://www.mikeandkey.org)

Officer contacts info:

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

### Postal Address:

P.O. Box 4234

Renton, WA 98057-4234

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

The **Mike & Key ARC – 2023 Field Day Album** is up. There are a lot of pictures and my thanks to those who submitted theirs.

Anybody can view and download the pictures. If you have a gmail account, you can add yours or comments.

<https://photos.app.goo.gl/KUecWdiX6sN6362n8>

The Mike and Key ARC is an ARRL affiliated club dedicated to the growth and betterment of Amateur radio. The annual dues are \$12 for individuals and \$18 for families. Visit our website for meeting, membership, and other information



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