The International CWops Newsletter

March 2011

Issue No. 14



CWops Events

On-Air Monthly CWT
Next: 9 March 2011
Start time:
1100Z Asia/VK/ZL region
1900Z Europe Region
0300Z (10 March) NA region
1-hour each region
Exchange name/number (members)
Exchange name/SPC (non-members)

CWops "neighborhood"

Look for CWops on 1.818, 3.528, 7.028, 10.118, 14.028, 18.078, 21.028, 24.908, 28.028

CWops "Happy Hour"

1900 local, every day, on or near the "neighborhood" frequencies – just call "CQ" or answer someone else.

CWops Officers and Director

Officers

President: Pete Chamalian, <u>W1RM</u> Vice President: Art Suberbielle, <u>KZ5D</u> Secretary: Jim Talens, <u>N3JT</u>

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Bert Donn, <u>G3XSN</u> Shin Onisawa, <u>JA1NUT</u> Vidi La Grange, <u>ZS1EL</u>

Webmaster: John Miller, <u>K6MM</u> **Publisher**: Rob Brownstein, <u>K6RB</u>

From the president...



Spring was making an early appearance in New England in mid-February. The mountain of snow on our roof was melting and the 3 feet (1 meter) of snow in my yard was

getting down to 2 feet (0.6 meter). Then, winter returned with a vengeance! Over the weekend of the ARRL CW DX Contest, we had winds approaching 45 mph (72 kph), temperatures dropping into the teens and on Monday we had 4 inches (10 cm) of snow! So much for an early spring!

Washington and the North American CW Weekend

But spring will come and with it the Washington DC CW Weekend from May 6 to May 8 at the Fairview Park Marriott Hotel in Falls Church, VA. It's right across the Potomac River. Washington is beautiful this time of year. The famous cherry blossoms have gone, but all the rest of the spring flowers and flowering trees are in full bloom – a sight not to be missed. If you've not been to DC in spring, make this the year you do it. You'll be in great company and have a great time!

Many of your fellow CWops members and other CW enthusiasts will be attending the DC weekend. It's the perfect place to meet the guys and gals you've had contact with. Make new friends and renew old friendships is the name of the game.

In years past, we've actually had visitors from all continents in attendance. The value of personal friendships can't be overstated. We know so many by ham radio but there is nothing as cheering and warm as the handshake from someone you've worked on the air and now are meeting for the first time.

There are plenty of things to do in and around Washington, DC, too. Historical attractions abound along with those that are right up to the minute and beyond. For US citizens, you can get passes to visit the White House from your Congressional Representative for a guided tour. We did that a few years ago and it was fantastic! If you can't get those tickets general visitation tickets are also available.

If you are interested in the history of the U.S. Civil War, there are several major battle sites nearby. And Gettysburg, PA is only a few hours drive north. If your interest goes back to colonial times, Williamsburg, VA is the place to go. Historical Williamsburg is a functioning community that is set in 1746. Shops, artisans, and buildings are all working and doing the things that were done in that era, and done in the same way, using the same tools and methods!

The hotel rate is a steal at \$84/night given the usual DC area hotel prices. That alone makes the event worthy of attending! The dinner is a special buffet, which also covers the hospitality suite, \$69.

It's not too early to make your plans and reservations. You can sign up for the dinner at:http://www.goldtel.net/dcweekend.html

Reservations at the hotel can be made at: http://www.marriott.com/hotels/travel/wasfp-fairview-park-marriott/ Be sure to use the Group Code CWDCWDA to get the special rate.

The Elmer Project

In response to my February message, we have three volunteers to be Elmers.

The planning for this effort has just begun. I know other groups have done or at least attempted to do this in the past but I suspect their efforts have not been as successful as they could have been. Our effort will not make that mistake – we have ideas for a full blown and sustained communications program.

If you've had thoughts about getting involved but hesitated, thinking that you're not a teacher or you have never done anything like this before – not to worry. The concept is simple – help a rookie get better at cw (they will already know it and are just trying to improve their speed, sending quality, etc. Think about your own experiences when you first got your license and got on the air. Did you have an Elmer? I had two, but neither of them were cw operators or had any interest in it – I was on my own. But, once I got involved with traffic handling and the New

York State (NYS) net, I got what amounted to remote Elmering from several great cw ops – the process does work!

Let me know if you're interested in being an Elmer.

See you in the next CWT!

73,

Pete, W1RM

From the VP/Activities Chairman...



Have you ever had the chance to operate from a DX location? It's quite an experience to be "the DX," even when it's not as rare as South Orkneys or Spratly. I had the opportunity to rent a DX location on St. Croix in the U.S. Virgin Islands for a few days in early February. While by no means is the KP2 location even close to being high on most hams wanted list, it's amazing what kind of pile-ups can be generated when you call CQ from any location outside of the US or Canada. This is an experience that every ham should

have at least once in their lifetime.

You can even convince the XYL that this is a vacation for just the two of you. Many XYL friendly locations are available for rent not too far off the beaten path. In my case, I was searching for something readily accessible with convenient air connections and that had accommodations that would satisfy the other half of the team. (Read as "Not quite the Ritz, but air conditioned and comfortable.")

While my rental on St. Croix is just about perfect, some others may opt for more exotic spots that are higher up on the most wanted list. But, at the Radio Reef location on KP2 there were large pileups, particularly on the lower bands and WARC bands. Having had the chance to be on the DX side, I want to share some ideas that all of you may find helpful the next time you're chasing a DX station in a pile-up.

Many hams find a desirable DX station to chase by looking at the cluster spots. I could tell instantly when someone spotted me because all of a sudden a dozen stations were calling on exactly the same frequency. The result was chaos. It's virtually impossible to copy a call when 3 or more stations are zero beat and about the same strength. So who did I come back to? The stations that were calling 50 or 100 Hz off the frequency that had been posted on the cluster.

Their calls were easily copied because they were at a slightly different tone and didn't have other signals zero beat with them. The lesson to be learned here is that if you use a cluster spot for a

DX station, call a hundred or so hertz off the frequency given. You'll stand out in the crowd instead of being buried in the noise. And, if I attracted a dozen stations in KP2, just imagine the number calling any DX station that's operating from a semi-rare spot.

Another suggestion is to be even bolder and call above or below the pile-up. The DX operator wants to maximize his time and keep a high rate of contacts. So sooner or later, he's going to use his RIT and find you in the clear.

The third suggestion that we all need to take to heart is to LISTEN. If the DX station copies a partial call and comes back with a letter and number, DO NOT call him unless you have that combination in your call. Some operators take note of those who call out of turn and black ball them. Others just won't QSL. It's better to be considerate in these instances instead of being too aggressive.

As we're moving into the daylight savings time (the second Sunday in March) band conditions will be somewhat different than we've been experiencing during the winter months. Hopefully, we'll see some more 20-meter openings for our mini-CWTs. Your Activity Team is just about ready to announce the details of our plans to begin a second mini-CWT each month. Keep your eyes on the reflector for details.

[Ed: Also, we are considering moving the first event back in time to 1300Z. That time is considered more practical in Asia, and it makes it more likely we'll get some west coast participation. We'll keep you posted but the two changes – two mini-CWTs per month, and a later Asia starting time will probably be put in place for April.]

I hope that all of you have joined in the chase for the ACA and CMA Awards we offer. Trying to contact different members on different bands adds to the excitement of everyday QSOs. Whether you're chasing after the awards or just tracking results to know how you're doing, we invite members to share their totals with us each month.

Reports listed reflect all information received through February 25, 2011 Stations with an asterisk * next to their calls have updated their reports this month. .

Here are the latest results received as of February 25, 2011.

Call	ACA	CMA	
KZ5D*	276	1415	
N5RR*	259	1398	
EA8AY*	204	554	
K6RB*	184	898	

W1UU*	179	571
N1ZX*	172	220
W1RM*	170	1081
W6KY*	167	756
W4BQF	106	340
DL8PG*	101	
N5TM*	90	215
KR3E	77	534
N3JT	77	650
W5ZR	72	992
N3AM	63	778
W6RKC	60	464
K4GM	52	462
W1UJ	52	
K6DGW	43	333
K2VCO*	40	
W2LK*	36	406
AD1C*	27	362
OK1RR	2	282
HB9CVQ		479

See you in the mini-CWT on Wednesday, March 9.

73 de Art <u>KZ5D@aol.com</u> Activities Team Leader

From the Editor...



I think you're going to like the member stories we've got this month. Keep those emails coming! What is so interesting to me is how much many of these guys

have in common. One of the things that really stands out is how many of us started out by listening to shortwave and hams on a Philco console radio (including me). Maybe Philco should be given some kind of award for enticing adolescent and teen-age hams into the hobby. I'm sure in Europe and Asia, there were analogs to those Philcos, too.

With nearly 900 of us, now, on the CWops rolls, it makes it a little bit difficult to remember who is in the club. What I've been doing, lately, is I'll get on the air after opening up our Website and going to the member roster page. When I work someone who I think is a good operator, I'll scroll the list to see if he/she is a member. If not, I'll mention the club, give some a brief background, and invite them to check out the Website, and if interested, to email me.

I'm also making a note of the members I work, casually, and in mini-CWT. I'm going to work on trying to remember their names and other interesting details. It makes it more fun when you can "pick up where you left off" on each successive QSO.

And, on the subject of QSOs, I made a vow to myself that I would start getting on the air when I get home from work on weeknights. Allowing time to unwind, eat, and warm up the amp, I find that I'm getting on around 7:30 PM local (PST), usually on 40 meters, around 7.028 MHz. Have had some very nice QSOs that last couple of weeks, too. Maybe this "happy hour" thing is going to need a few others vowing to get on around 7 PM, local, to get it going. What do you say

One last thing. In January, I got a nice bonus from my company, so I immediately did a few things: bought two P3s to go with my two K3s; bought airfare to the DC Dinner; bought airfare to Dayton (my first time ever at Dayton!). I had never used a panadaptor before getting those P3s. Now that I have them, I'm wondering how I've managed without them. What a great thing it is to be able to see 50 KHz of a subband at a glance. I can see if there's any activity on any band at any time. This past weekend, I was playing in the NAQP RTTY contest. I had one K3 set to 20; the other set to 15; and both bands were humming. But, once in a while, I would band switch to 10 m to see how things were looking between 28.050 and 28.100. And, I ended up jumping over to 10 enough times to work 10 stations and get 5 multipliers. (There is a perpetual pipeline between Santa Cruz and Florida on 10 m, so 5 of the 10 QSOs were with FL stations!).

73, Rob K6RB

An Upcoming CW Event:

The SOC CW Bash

To commemorate the passing of one of its founding members, the Second Class Operators Club will be holding its first `SOC CW Bash' on Saturday April 2nd between 0000z and 2359z. Many people will remember Hank Kohl K8DD (SOC #69; also a CWops member) as one of the main engines behind QRP ARCI, a professional CW operator and a seasoned contester so as a fitting tribute, the SOC hopes to combine all aspects of Hank's talents and passions in one event.

Any operator can take part in the `Bash', and although not a contest, the SOC will be issuing its very own special certificates for top scorers in both a QRO and QRP section. The club will hopefully be activating all of its own call signs during various times of the 24 hour period – W0SOC, M0SOC, W1SOC AND W5SOC – and although there are no `strict rules' the format will be roughly as follows:

- * Time: 0000z to 2359z on Saturday 2nd April (nearest Saturday to April 1st)
- * Call `CQ DD' in memory of Hank around the QRP calling frequencies: 3560, 7030 (also check 7040), 14060, 21060, 28060.
- * If QRO, please limit power to 100W
- * Members to exchange membership number, name and RST
- * Non members to exchange name and RST
- * Stations worked on different bands will count as separate QSO's e.g. If you work W0SOC on 80m, 40m and 20m this will count as three points but if you work W0SOC twice on 80m this will only count as one.

Please submit your scores to Ryan G5CL at <u>RPike78088@btinternet.com</u> by Saturday 16th April (if you solely use QRP, please note this clearly in your email).

Any queries, questions or comments, please message me off list.

Hope to see you on the key!

73.

Ryan G5CL/M0SOC 422

CWops Member Stories

George Harlem, W1EBI, CWops 9



Growing up in Pennsylvania we lived in a one-bedroom apartment in a small two-story building with five other families. Two of the other five were hams! Charlie, W3UA, and Frank, W3JDD, were in adjacent apartments on the first floor. We were on the second floor above Frank. Everyone in the building—in fact, all twenty or so residents of the little village—were employed at the nearby hydroelectric power plant, where my father was an accountant. I was six years old in 1949 when we had

the very first television set in the village. Unfortunately, the TVI from the hams downstairs was so bad that my father used to turn on his home diathermy massager, assuming that it was creating defensive QRN! Obviously we were not fond of living with ham radio operators.

Three years later we moved to our own house in town, a three-bedroom duplex with a small lot. One day my father came home with an old Philco all-band radio that a friend was getting rid of. It was a floor model that was too large a piece of furniture for the living room, so it went down in the finished basement, next to the clothes dryer. I was curious. Hey, there are marks on the dial for "Radio Moscow" and "BBC". I discovered short-wave listening. Then I discovered hams. I was fascinated. As a boy scout I had a subscription to "Boy's Life" magazine, and there were photos of ham stations showing tall racks of neat stuff with dials and meters, and lots of QSL cards covering the wall. I think my interest in finding out more about ham radio started with that big Philco radio.

I wanted to earn my signaling merit badge, and chose Morse code over semaphore. I have no memory of how I taught myself the code, but I got the badge. I also learned that Paul, W3TEJ, lived about a mile away. I biked to his house and knocked on the door, and the rest is history. Paul was net control for the Pennsylvania Fone Net, had a big homebrew AM transmitter and an NC-183D receiver in his shack. He connected me with George, W1VBI, who administered the Novice exam and code test, and soon I had my first callsign—WN3CMN. I was the spring of 1955, I was 12 and I was a ham!



There was actually an electronics store in town that sold ham gear. I poured and drooled over the Allied Radio catalog, but finally my father (he was probably a frustrated electrician) suggested something else and bought me a Johnson Viking Adventurer kit. Wow, a single 807 at 50 watts input, and a National NC-88 receiver. A couple of PR crystals, some stranded copper wire, a few nights with a soldering iron, and I was ready. The transmitter worked right away! I also had a Navy straight key and a pair of headphones, along with a brand new ARRL log book. I filled the log with lots of "X's" (every CQ had to be logged

back then, reply or not). The antenna, though, was terrible—about a 100-foot long hunk of copper that ran from a metal pipe we put up as a mast bracketed to the side of the house to an unused utility pole across the back alley. I hung a lead sash weight on the other end of the wire and wrapped some ugly stranded aluminum wire around the house end to make an end-fed radiator—although I'm sure it didn't radiate very well! Actually, the antenna literally touched the power lines coming into the house, so surviving was even more important than radiating. But

one day I was on the 15-meter Novice band and worked G3AAE, my first QSO outside the U.S. From that moment, I was a DXer.

In 1956 my Novice license expired, so my mother and I took the train to Philadelphia, 70 miles away, so I could take the General exam at the FCC field office. I think I actually had to draw a schematic of a Hartley oscillator, but the 13-wpm code test was no problem, so I was now W3CMN. Soon after I bought a Heathkit VF-1 (who didn't?) and I was rockbound no longer! The Navy key was replaced by a Vibroplex bug borrowed from Jim, W3KKG. Better still, the local radio club allowed me to be the custodian of the club's own Viking II and Viking VFO in between Field Days. I replaced that awful random wire with proper dipoles for 20 and 40, giving me 15 meters too. By the time I got to high school I was a regular check-in for the EPA CW net and handled traffic on the 3RN and EAN nets. With my ARRL ORS and OBS designations, I got into some CD Parties and began my contesting career. The logs also show activity in CQWW and ARRL DX contests in the heady days of Cycle 19.

Eventually the Viking II went back to the club and I was able to purchase a Viking Valiant. The old NC-88 was pretty awful, but it did the job. I renewed my license in 1961, but by then I was in college and had little time for ham radio. By 1962 I was inactive. By 1964 I was in graduate school, and the Valiant was sold to pay for a couple months of rent in my Cambridge, MA, apartment. Rosina and I were married in 1965, and in 1967 we bought our first house in Acton, MA. I kept thinking about ham radio, and managed to get relicensed as W1EBI in 1969—but somehow I just never got back on the air.

Fast forward to 200, while helping move my mother to a retirement apartment I found some old photos of me with that great Viking II. The bug bit—I had to get back into ham radio again! Even after forty years away, I never forgot the code. Actually, during my 23 years as an international sales executive with Motorola I spent a lot of time on airplanes and used to "send" code to myself while reading magazines on those long flights. A little brushing up with some ARRL License Manuals and I got a new call in 2002. But I wasn't keen to have a 2x3 callsign. Thanks to the Vanity system, I was able to get my old 1969 call back—I was once again W1EBI! It's hard to make up for so much lost time, but after almost nine years back my log has over 67,000 QSO's, I'm into contesting (and in my eighth year as secretary of the Yankee Clipper Contest Club) and still DXing, with 310 confirmed and 9-band DXCC. I actually still have that NC-88 and the antennas are all still wires, but they seem to radiate a bit better than my first try.

Jim Talens, N3JT, CWops 1



Like many CWops members, I was "born" into ham radio at an early age! I remember having access to a crystal set one summer in Atlantic City, NJ when I was about 9 years old, and I recall a year later hearing CW (reportedly from a Coast Guard station nearby) on our broadcast receiver while listening to a Phillies baseball game. The ham radio interest may have been just waiting to erupt, but it lay dormant for several more years, partly because nobody I

knew or in my family was technically inclined. Later, when a friend in junior high school showed me his station, I was entranced. By the following summer, at age 13, I was licensed as KN3MNJ. I soon upgraded to K3MNJ and kept that callsign until 1975 when the FCC opened Extra Class licensees to a new set of callsign options. Amateur Radio increasingly became my principal avocational interest, but it also served as a foundation for the vocational side of my life.

My first station, which my father kindly financed, consisted of a crystal-controlled Globe Scout 680A and RCA AR-88 receiver. I attribute my inclination today to avoid narrow filtering to having been weaned on the AR-88 and its broad passbands. What I remember most clearly about that receiver, though, is the day it arrived. I had the choice of trying to get the hugely heavy block of steel up a flight of stairs to the shack by myself or waiting until my father returned home that evening. I couldn't wait! I put my shoulder to it and rolled it up the flight of stairs, step by step. I vividly recall my profound relief when I reached the top landing. Another step and I would have rolled backwards, receiver and all!

CW was the principal novice HF privilege so from my earliest radio days it was the natural mode for me. I learned operating procedures and gained proficiency from locals boys my age who had on-air experience and were near enough to meet face to face. There was even a local ham radio club called the Germantown Radio Club that consisted of some 50 members. It provided a self-contained world of social life, radio activity and technical training.

The world of radio possibilities really opened when I bought a VFO with money from doing chores and shoveling snow in the neighborhood. I could now chase DX wherever I heard it, but I got sidetracked to 10m AM. One morning that spring a local on 10m AM challenged me to a CW contact. I was sufficiently embarrassed to vow improvement, and in fact I never returned to the phone mode except for occasional contests or traffic handling. I competed with other hams in high school over new countries worked that day, almost always on CW, and we plotted strategies for beating each other in CW Sweepstakes. One year I built a CQ wheel using a record player, sheet of thin wood and nails properly spaced to trigger a micro-switch. During one CW

Sweepstakes I recall a buddy of mine continuously sending CQ SS for over an hour on 80m. The next day he admitted to having fallen asleep at his shack desk!

Along the way I built a series of amplifiers using 811As, 813s and 4-400As that in addition to helping my signal gave the neighbors in adjoining row houses much to complain about. I still recall with pain the near fatal experience I had when I was neutralizing the 811A amp, reaching behind the rack cabinet to tweak the capacitor and then turning on plate voltage again. After doing this about ten times I got sloppy and forgot to turn the plate voltage off. I clearly remember today looking over my shoulder as I flew through the air, just amazed at how a horse could have come up the stairs so quietly and kicked me! When my arm stopped twitching I recovered my composure and headed downstairs for dinner, never telling my parents. But as high school neared an end, matters of college and a vocation became life's new dominant theme. Ham radio was key to the course I charted.

When it came to choosing a career, the technical nature of ham radio pointed to engineering. I went to the Moore School of Electrical Engineering at the University of Pennsylvania, where I got my BSEE despite contests and helping keep the club station, W3ABT (for which I am trustee today), on the air. I still wonder sometimes how life might have unfolded absent radio as a key ingredient in my early years. In some ways I know the answer to that question given career changes I made later. Meanwhile, the engineering degree led to a job with Western Union, which at that time was involved in advanced communications systems, including a multiplexed data-television system for the Department of Defense, and acquisition of the TWX system from AT&T. In fact, my last job with Western Union before going back to school was teaching engineers and managers the operation and equipment of the TWX system, which meant I knew how to operate and maintain teleprinters. That came in handy for amateur RTTY, especially because I managed to scrounge enough discarded parts to build a working Model 19 that I used at home for several years.

By about that time our family had moved to another section of Philadelphia and I had installed a 40-foot self-supporting crankup tower in the narrow space between the ranch-style houses. One summer afternoon while working DX on 20 RTTY, the boy next door came running in to tell me that my antenna was on fire. I looked at the meters on my homebrew 4-400A amplifier and saw there was indeed something wrong. I shut down the gear and ran outside only to see my TA-33 balun issuing thick black smoke. In just a few seconds, half the driven element folded downward, and then the smoke ceased. There was no need for figuring out how to get water to the balun even as hot molten plastic continued dripping down. A few weeks later the insurance adjuster came to the house on a claim for the antenna loss. As he and I stood next to the tower I shook the lower section just to show how sturdy it was. There was a sudden THWONK sound about a foot from where we stood. The TA-33 half-element that had folded downward now had

broken loose and like a spear had impaled the wet ground within arm's length of the adjuster. The adjuster instantly approved a new antenna, but that marked the end of my RTTY days. I replaced the TA-33 with a homebrew six-spreader quad that worked exceedingly well at only 40 feet. In fact, that antenna was featured in an article called The 3-4-6 Quad in the November 1971 issue of 73 Magazine. Catchy name, I thought.

A year or so later, I was awakened at 3 a.m. by howling winds and odd creaking noises outside my bedroom window. The tower was still cranked up because while snow had been predicted there was no mention of winds and ice. I ran to the window just in time to witness a 60 mph gust of wind cause the self-supporting tower in seeming slow motion to break free at the top of the ground post and come to rest against our neighbor's roof. This was a neighbor who liked to watch football games on New York City television channels some 90 miles away using a highgain Yagi pointed directly at my quad. It had gotten so bad that he even called the police on several occasions about the interference I caused to his New York reception. So the antenna falling onto his house was not the best of occurrences. Operating in abject panic, I threw on gloves, coat and boots and raced outside to survey the situation. There was about a foot of snow covered by a half inch of ice. The quad antenna has settled on the neighbor's roof like a big spider, gently and without apparent damage to the roof. I climbed up the tower section resting against his house, disassembled the antenna (all six spreaders and boom) and managed to drag the tower section back onto our property -- all before the sun came up and without awakening him or my parents. The neighbor came out in the morning only to see a heap of aluminum, steel, wire and bamboo piled on our side of the property line. He never found out what had really happened.

I later installed another 40-foot crankup tower - this time atop our twin-ranch house (two one-story houses with a common wall), much to the concern of my parents who correctly foresaw problems. The 20-40 beam worked extraordinarily well, and I was confident the 200-pound metal plate I used to distribute the weight across multiple joists of the flat roof would work out fine. One frigid and windy winter morning I had to make a quick adjustment that required climbing the tower. An hour later, on the bus to work, I experienced pain from my ears that was almost unbearable. Both ears were frozen solid! Within an hour or so they thawed and the pain subsided. To this day, though, when it gets really cold my ears tend to hurt and I attribute it to my imprudent winter climbing experience. The tower lasted until early spring when our adjoining neighbor complained that the antenna occasionally extended over her side of the roof, which it did by only inches. These were days of rampant TVI and ugly relations with neighbors so after some animated discussions it was decided the tower had to go. Soon after that my parents had to install a new roof (meaning re-tarring it), but at least the house structure wasn't damaged from what I had done! Once the tower was down my radio activity ceased for several years, until I re-entered the workforce.

Earlier, while working at Western Union as an engineer, I took business courses at night toward an MBA (Master's in Business Administration) at Temple University. The University of Pennsylvania's Wharton School, to which I had automatic admission as a Penn engineering graduate, had no evening program in those years. I knew that engineering just wasn't for me and I figured I'd do better with an MBA coupled to my engineering background. A year from completion of this program, Western Union closed its Philadelphia office and I finished my MBA fulltime. But when I graduated in 1972 there was a recession and simply no jobs. I had a choice of remaining in school by accepting a teaching fellowship and working toward a PhD in Management -- or going to law school. I chose the PhD route in the belief it would ultimately give me greater independence through consulting opportunities. That decision was reversed following a long evening chat with my former Western Union boss, who had become a confidant in such matters. While in the MBA program fulltime I did rather well bidding on and marketing government surplus equipment, often filling my mother's garage with "junk" that for the most part I managed to sell. In fact, I earned enough to finance much of my law school expenses. I even gave brief thought to making the government surplus business a career. But I had been accepted to law school and my goal now was to become a patent attorney. I was again using the technical foundation that began in ham radio to help shape my career.

Ham radio took a backseat during law school because there just wasn't enough time for women, ham radio and study! (I remembered what Benjamin Franklin had so wisely said, "Wine, women and song are the ruination of young men, so give up singing.") I did well in law school and had any number of interviews with companies on campus in my final semester. Having taken a variety of intellectual property courses, I was well positioned to head into a patent law position in a company. But then an unexpected event occurred: the Federal Communications Commission came to campus looking for attorneys with specialized technical backgrounds. For a ham it seemed to me like a god coming to Earth. Of all the people they interviewed, they hired only me -- largely because I had worked for a common carrier (Western Union), I knew the regulatory world (from ham radio), I was graduating in the top fraction of my class, and I was an engineer. So my plans for fame and glory as a patent lawyer went into a holding pattern for the maybe two years I figured I'd work in Washington, DC. I knew the path had changed more permanently when I bought my first house -- and installed a 40-foot tower, in 1976. About then the FCC developed its vanity call sign program and I got my choice of N3JT, which includes my initials. From then until today I have remained primarily a CW operator, rag chewing and in contests.

There have been many fun interludes in these years of radio. I remember some years ago while in Florida visiting my mother we happened one morning across a guy on a boat (at a dock) with a ham transceiver and a vertical antenna. He said he wasn't licensed but liked to listen. I turned up

the volume, tuned around, and heard K3ZO on SSB from Thailand! I called him and we had a short QSO, astounding the boat owner. I've run phone patches for hospital ships in the South China Sea during the Vietnam conflict and practiced my Spanish while helping hundreds of South Americans with phone patches as well. In between I was always on CW! While I made far less than my private sector associates, I had the opportunity of traveling at will, something they could never dream of. Those vacations allowed me to visit dozens of hams I'd worked over the years, enlarging the world perspective I already had through so many international QSOs. I operated from a number of overseas in contests, even winning the ARRL CW DX Contest in 1991 from HK0/N3JT. I also operated from CP, HK, OA, PZ, GW, LU, PY, EA, VP2E, ZS, 4X, 7X and lots of other spots, sometimes in contests using my own or others' gear, or just as a visitor for a short time at a host's station. I've had untold visitors in my shack as well.

In 1997, there was a government-wide cutback and I was offered early retirement, which took me approximately 2 nanoseconds to accept. They wanted to pay me never to return! But my years at the FCC were largely interesting and rewarding. I was given enormous responsibility early in my career, and was involved in a variety of work that few other places -- government, industry or academia -- could match.

On leaving the FCC, I worked as Of Counsel for a large Washington, DC law firm for five years, until the primary satellite client, Motorola, changed its business plan and disengaged from Iridium. I shifted to international trade work but found it too tedious. Now I do telecom consulting in anything involving the FCC, and I prepare business agreements, leases and contracts. Just for variety I have been a real estate agent for nearly ten years, and I teach English as substitute in the Fairfax County adult ESOL (English for Speakers of Other Languages) program. I also occasionally find projects to keep my technical muscles in shape. My latest effort appeared in July 2010 QST (single point grounding system) and another will be in May 2011 QST (solar panel backup system).

My current station consists of K3, Acom 2000A, Skyhawk tribander at 23m, a D3W WARC dipole at 25m and a XM240 40m beam at 28m. Various dipoles and loops serve to give me some presence on the low bands. For keying, I've tended to use a keyboard for some 40 years now, but lately divide my time between that and a Schurr paddle I inherited from HK0BKX. Nina is licensed as KE4PSV but rarely operates under her UHF privileges. Photos of the station are at www.n3jt.com.

The ham radio experience has meant friendships around the world, an avocation available as a refuge at virtually any time, and a career foundation at several stages in life. I can imagine no other hobby that could have offered the social, technical and career benefits that ham radio has for me. CW is a mode that strengthens links with other operators worldwide in ways other

modes simply do not. Were I young today I suppose ham radio might not be my first choice of avocational pursuit. But were I fortunate enough to have an Elmer who could show me the ham radio world I know it now, I think I'd appreciate that it has more potential in life than chat rooms and surfing. Still, most of us use email and the Internet, and we increasingly spend less time rag chewing. Does that spell the end of CW in the future or the demise of ham radio more generally? There is a resurgence in the number of ham radio licensees but not necessarily CW operators. If we who are CWops members have found CW at once mysterious, satisfying and worthy, then we can make the case to others of its benefits. That's where our Elmer program comes in, and I hope lots of CWops members join in that effort.

Pete Chamalian, W1RM, CWops 8



I was born and grew up (to the age of 8) in New York City. We had a radio in our apartment that had both AM and shortwave. As a youngster, I would turn on the radio, switch to shortwave and tune around. Aside from the various noises, I did manage to hear some AM broadcast and this strange sounding stuff that I couldn't make any sense out of. All I could hear was a thumping in the speaker. What was that? Well my dad wasn't any help since he didn't

know a thing about radio except that it provided news and entertainment. Of course, that thumping was CW, but without a BFO, who knew.

In the 1950's, we moved to what had been a 96 acre farm that had apple and peach trees. A long-time friend of my dad's was Perry, W2YOM. Perry was an engineer for AT&T and had a classic homebrew 20 meter AM rig in a 19 inch rack in an apartment in the Bronx. His job was transferred to New Jersey and there was no place for that rig – it came up to us! Over the course of the years, Perry, on weekend visits which were all too infrequent, put the rig back together and we strung up a dipole for 20. We actually got on 20 AM and made a contact or two! He also lit the fire for me by giving me a one-tube Meissner receiver kit that we would build together. We also experimented with a crystal receiver and to my delight actually heard the local AM broadcast station, WLNA.

Perry got me on the road to studying for my novice exam. I had all the books - the ARRL License Manual, several AMECO study guides and audio tapes for learning the code. I would practice sending by sending newspaper articles and any other printed material I could find. Then, in the summer of 1956, our apple and peach farm was being sprayed and harvested by W2KMQ. He was now an immediate resource for me and that summer he gave me my novice exam. I was so nerved up when it came to the CW, he said, "let's practice a bit and then I'll give you the test." Well, we did practice for about 2 minutes when he said, "OK, let's see what you have". I gave him the paper – he took a quick look and said, "Congratulations, you passed"! I

never forgot that trick and have used it many times when giving novice tests to others. In September, my long-awaited novice license arrived – I was now KN2UTV.

As a novice, I was limited to small segments of 80 and 40, crystal control and 75 watts. I hated CW! My very first contact was an arranged schedule with an upper classman at my high school. We got on 80 and I called him. He came back with the usual name, signal report, QTH, etc. Then over to me – and that's when the light went off. I had done all my sending practice using printed material and never actually sent anything from memory! Talk about an oh my gosh moment – it was a mad scramble for me to write down what I wanted to send, all the time my contact was going "??" and I was sending AS. Finally I wrote a hasty message and started to send. Right after that, I set about relearning how to send from memory. It took a while but I got the hang of it. (See what an Elmer might have taught me if I had one for CW?)

Once I got my General, I couldn't wait to get on phone! Well the day finally came when my shiny new General Class license arrived. By now I had upgraded my Heathkit AT-1 to a Heathkit DX-35 which was capable of 35 watts of AM and CW. I borrowed a crystal from W2KMQ that put me around 3900 kHz. I tuned up and boldly called CQ. Nothing. I tried it again but still nothing. Then, someone tuned up near my frequency – a caller I thought. No, he called CQ. I answered him but he came back to another station. By this time I was very frustrated so I yanked out that crystal, put in one for 3590 (which I used to get on 40 meters) and called CQ. TWO, yes TWO stations came back to me and I've been a CW man ever since!!

From 1956 to 1960 when I went off to college in Gailsburg, Ill, I was a very avid traffic handler. I started at the slow speed net level (the Empire Slow Speed Net – ESS) and moving along to the faster New York State (NYS) net not long thereafter. On NYS I quickly found a wonderful group of new friends and a mentor – Clara Reger, W2RUF. As she did with all the new traffic guys, Clara took me under her wing and helped me understand how to handle traffic. I was a fanatic when it came to traffic handling. I was on the nets every night and managed to earn slots on 2RN, EAN and even TCC. I was also net control on each. In that period, I earned 36 Brass Pounder League (BPL) certificates.

Along the way, I made some pretty wonderful friends – K2KIR and K2SSX among them. Don't recognize those calls? Try W2RU (CWops 65) and W6SX (CWops 61). We had a fantastic reunion in August, 2010.

After 2 years in college I realized I really didn't know what I wanted to study so I put it on hold for a while. I got a job at the then-brand-new Lafayette Radio Store in Scarsdale, NY. Lafayette had all sorts of electronic equipment including ham gear! I was the salesman in that department. I didn't realize it at the time, but one of my customers was a young fellow from Yonkers, NY –

Ken Wolff WA2CPV. I sold him his first bug. If you don't recognize the name or call, today he's K1EA!

Late in 1963, I was offered a job working at ARRL Hq. in the Communications Department, working with George Hart, W1NJM. I moved to Hartford and took a room at the Local YMCA until I could find more suitable quarters. Not long thereafter, I rented a room at what was called the ARRL Hq Bachelor's quarters. It was in an old home on Selden Hill that turned out to be a great radio location. I put up some wire antennas and started to assemble a station.



In those days, FCC required that you apply for a new call if you set up permanent residence in another call area. So I put in my application to change address and awaited the arrival of my new identify. Some of the gang at ARRL Hq. were taking side bets that I would be the first WA1 on the Hq. staff. WA1 calls were just starting to be issued. Imagine my delight when the envelope arrived and I found my new call was W1BGD! A few years later, KH6BZF dubbed me the Big Gooey Donut.

I was introduced to the world of contesting and DXing by Bob and Ellen White, W1WPO and W1YYM. It didn't take long for me to become caught up in the excitement and challenges of contesting and DXing. One of my favorites was the old CD Parties. Try as I could, I just couldn't beat K2EIU/5 (N6RO, CWops 79). Ken could work all the W1, W2 and W3's on the high bands that I just couldn't hear with my wire antennas. It wasn't until the late 1960's when I moved my station back to New York and put up a tower with a TH-6 that I could compete with Ken.

In 1967, I left ARRL Hq. to return to college as a Psychology Major at the University of Hartford in Connecticut. I continued to build my station in NY but it wasn't until 1970 when magic happened. Magic came as a lovely young lady who I had tried to get a date with for more than a year. Finally there was a break through. One date led to more and lucky for me, my sweet Bobbie (now WB1ADL) said yes to my proposal of marriage in May, 1970. We got married in July, 1971.

Bobbie understood and accepted my focus on contesting and even helped me dig tower and guy anchor holes with a coffee can at my parents home in NY where we went for contests on weekends. She would bring me meals, instant breakfasts and coffee all throughout a contest. When I took an hour or two out to sleep, she would wake up in time to get me up and going!

The new station was now an 80 foot tower with homebrew 4 elements on 20 with a 2 element Mosley on 40 10 feet above it. On another tower were 4 element monobanders for 15 and 10. The new station paid off!



I won the Bermuda contest in 1971 but we couldn't go to Bermuda to collect the prize because it was Bobbie's first year teaching and she would not be able to take the time away from school. So, in 1973, I did it again! This time we spent a wonderful week with the VP9 gang and the other winners, W1OO, G3HCT and G3LNS (aka 5B4AGC). There were a number of other first and second place victories but

the ultimate prize was number 1 USA in ARRL CW DX in 1971 and CQ WW CW in 1974.

In 1978, we bought our present home in Burlington, CT. It just happened to be the home that W1YL and W1CW owned. It is on a lovely 1,000 foot (300 meter) hill with a clear shot in all directions – a fantastic radio location. From here, my contesting results soared with record scores in CQ WW CW 15 meters single band (broke my own record 4 times), two New England Division wins for CW Sweepstakes, a North American record for low power cw only in IARU Radiosport, first place North America in JARL's AA, and a bunch of others.

I've had some wonderful opportunities over the years. My first multi op experience came when Gene, K1ANV (W3ZZ, CWops 307) invited to join the crew at W4BVV in Herndon, VA, for the CQ WW CW contest in 1965. That was the first time I had ever used a beam in a contest. And what a beam it was – a monster 4 or 5 elements on 20. My competition, Gene told me, was Bob Cox, K3EST (CWops 440) at W3MSK (later W3AU). Bob cleaned my clock but I sure learned a lot! In a subsequent operation from W4BVV, we set the M/M record at just over 10 Meg. Many years later, I was part of an Iron Man multi at K1EA. That was six guys, six radios, six bands, 48 hours – GO! We set the M/M record at just over 20 meg!

I was also one of the operators at K1KI where we won the CQ WW CW Multi/Single category several times.

I've also had the great fortune to have been one of the ops on the 1965 PJ5ME operation where we won the M/M category for the world. PJ9DX in 1970 was another win in CQ WW CW. In 1988 I teamed up with John, W1BIH at PJ9JT to win M/S for South America in ARRL CW DX.

DXing was always rather casual until I got the bug in 2005. I started going after all the countries I had worked but not gotten confirmed. It took some effort and digging to find QSL managers,

but today I have 'em all but P5, mixed and 319 cw. I've also managed to earn DXCC on 80-10 and am quite close on 160. I'm also 2 shy of 5BWAZ, needing Zones 24 and 19.

I also got the bug for the DXCC Challenge award. It starts at 1,000 band countries confirmed! It took a lot of digging and sifting but in 2010 I broke my goal of having 2,000 confirmed band countries!

Current Station:

My current station consists of a K3, and the Tokyo Hy-Power HL-1.5KFX amp. I use the Logikey K-5 with my trusty W8FYO paddle, purchased in 1964. It's the only paddle I'll use.



My original tower was 90 feet with a second at 70 feet (it had a KLM 6-element 15 meter monobander that had helped me set 3 of the 4 records on 15 single band in CQ WW CW). The ice storm of 2003 wiped me out (antennas, rotors, towers). Two plus inches of ice plus 40 mph winds were devastating. I rebuilt and thanks to N6BV's HFTA software, I discovered that 90 feet was too tall for 15 and 10 and the difference between 80 and 90 feet on 20 didn't make that much difference!

The new beams on an 80 foot Rohn 45G are Force 12 C31XR at 80 feet and the Force 12 MAG240N at 90 feet atop a chrome molly mast that will NOT bend!

On 80, I'm using a delta loop fed 0.64 waves from the apex (thanks John, ON4UN and your low band Dxing handbook). On 160, I'm using the K2KQ double-L antenna.

I've had a number of keyers over the years but my Logikey K-5 is my workhorse but I only have one paddle – the original W8FYO that I purchased in the 1960's. It's as smooth today as it was then.

Today, I am a happily retired Lotus Notes programmer which is a very long way from where I started my working career as a technical writer at Pratt & Whitney Aircraft (that with my shiny new BA degree in Psychology). I gradually changed careers, getting into the world of marketing communications, which included a 4-year stint of working for two advertising agencies. I had always wanted to get into the world of IT ever since Bobbie surprised me in 1980 with a fabulous gift. It was a RadioShack TRS-80 computer!. I learned my programming on it and went on to take courses which ultimately opened the door to IT at Northeast Utilities (the largest electric and gas utility in New England). I still keep my hand in developing applications and have a small sideline coding business that helps keep me in toys!

Other Hobbies:

My other hobbies include 10 pin bowling which I had been doing since I was 13 and photography.

Being an avid bowler, I would watch the Saturday afternoon broadcast of the Professional Bowlers' Association Tour. I dreamed that one day I might qualify.

Well, I kept at my bowling, got some excellent training and increased my average to the point where I did qualify for the PBA! I had back-to-back seasons with an average of 196 and 198. I never did hit a 300 but managed a high game of 288 and a high series (3 games) of 724. I also got to bowl against some of the pros in Pro-Am tournaments and even managed to beat a few!

Photography is my other hobby – I love to shoot "critters". That is small animals, birds and the like. I also enjoy shooting flowers. The biggest challenge I've faced is the hummingbird! Man are those little guys fast and skittish! You can look them in the eye, but move a fraction and they're gone!

Here are two of my better shots – a Steppe Eagle:



And a female Anna's Hummingbird at our feeder:



Of all the things I've seen and done in my radio career, the one thing I cherish above all others is the wonderful friends from around that world that we've made. Friendships are priceless!

Atsu Taniguchi, JE1TRV, CWops 141

Hi CWops!



I started to learn 25CPM (=5WPM) International Morse code in 1974, when I was a junior high school student, in order to pass the CW-class amateur radio operators license exam in Japan.

In 1975, I got my 1st ham radio station license (see below) as JE3UWU in Hyogo-prefecture near Osaka (JA3).

As soon as I became active on the air, I've been fascinated with the art of CW and I upgraded my operator's license to 2nd-class ham (need 45CPM international code) in 1977,then to 1st-class ham (needs 60CPM both international code and Japanese kana code "Wabun") in 1978 (17yrs old).



Fortunately, my young brain could remember many codes easily and improve speed quickly.

In Japan, most domestic QSOs using the international code are usually very simple like "599 BK" style, or a kind of rubber-stamp style. Since we have

Japanese Morse code "Wabun," and rag-chewing by "Wabun" is far easier than struggling with English words and sentences, most of JA CW rag-chewers use "Wabun" code instead of international code.

The "Wabun" code proficiency test had been required for the 1st-class ham radio operator license exam until 1996. Although 15 years has passed since "Wabun" was dropped from the license exam, day-time in 40m band and evening-time in 80m band are crowded with Wabun rag-chewers.

That is, thousands of CW rag-chewers are alive and very active in JA. But they are using domestic codes instead of international codes unfortunately.

Back to my story...

Due to small power and a poor antenna, I've not been able to work DX stations easily for long years. So, I've been a typical JA CW guy as mentioned above.

After a few years of QRT during university and my job-starting period, in 1986, I've restarted ham radio in Tokyo with current call-sign, JE1TRV. I've been playing on V/UHF phone/CW, and not so interested in the conversational QSO by international Morse-code till the year 1998.

In 1997-2000, I lived in Fukushima-prefecture (JA7) for my job rotation. There, I met and grew friendly with the local CW club (Fukushima CW Association, or FCWA) members, including the late Jun, JA7SSB. I was impressed with Jun-san's steady efforts for newcomers by using 2m FM net every Wednesday night.

In 1998 I had to have a surgical operation on my inter-vertebral disk that had been damaged by rowing while I was in the university. During several months' healing in the hospital and rehabilitation, I've been wondering what I can do, what I want to do, what is my specialty, etc. Then, an idea to found a kind of CW community came to me.

At that time, there was no nationwide CW community in JA who can join without restriction without any charge and can exchange information with each other. The community named "A1 CLUB" started with 11 initial members and has grown to 1600+ members now. (cf. http://a1club.net/)

At the same time, I'd been also inspired by the following articles;

- 1) "Invitation to CW Rag-chewing" by Shin, JA1NUT about how to enjoy English conversation by international Morse code as the Article-4 of the book "Morse Communication" ISBN-13: 978-4789810890 that was first published in 1998 from CQ publishing Co.Ltd. (Japanese)
- 2) "The Art and Skill of Radio Telegraphy" (English) by Bill, N0HFF, (A1 CLUB volunteers made Japanese translation in 2000)

After that, my interest focused on CW rag-chewing with English language so that I've been struggling with the copying in my head of English words and sentences every day and night. I'm looking for buddies who can be patient with my broken English conversation. ©

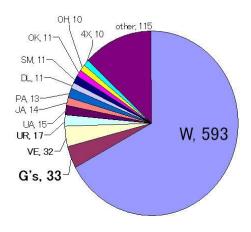


You are welcome to my small museum!

Taking this opportunity, I'd like to show some statistics of CWops club.

According to the roster as of 2011-01-10, there are 885 members and 593 (67%) of them are in USA.

The second position is G's, but they are only 33 (3.7%), then VE, 32 (3.6%), all other countries have less than 20 members. (see "CWops Country Distribution")



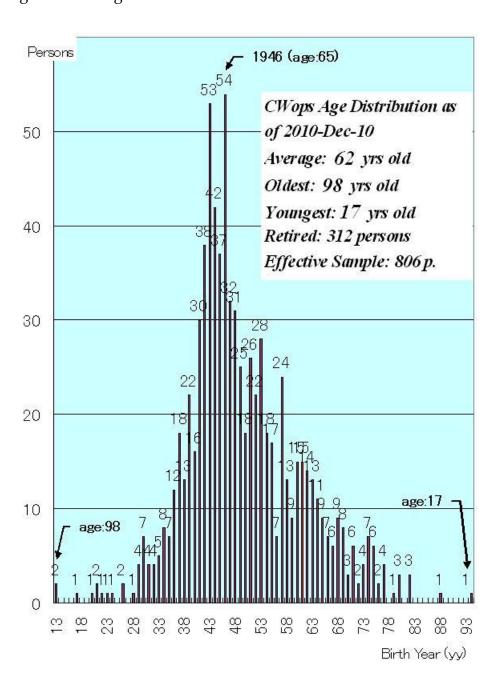
I think it is natural that the number of members who do not speak English as their mother tongue is quite small. However, I don't understand why VK and ZL members are so small. (Only 4 in VK and 2 in ZL)

Is there any wall for them to become a member or just due to decrease of interest in Morse-code communication in those countries?

Age distribution made from members' data base as

of 2010-12-10 shows the average age of CWops is 62 and about 40% are retired.

I guess these figures are not so different from the distribution of all radio amateurs.



Director's Desk: Vidi la Grange, CWops 13

LISTENING OVER THE SHOULDER AT ZS1EL



Station equipment:

- Elecraft K3/100
- Yaesu FL-7000 solid state 400 Watt linear
- Force C-3S modified fro 5-band operation: 20,17,15,12, and 10m
- Inverted V for 40 and 80m
- Inverted L for 160m

MORNING HOURS 07:00am to 07:30am

At this time of day, the only activity that can be expected is on 80 or 40m. Sure enough, on 3.510MHz there is Peter, ZS1JX, working a string of Americans. They are hardly readable, a fact easily explained by Peter's 80m phased verticals on a large property outside of Worcester as against my inverted V, which barely fits into my city lot and has an apex of only 10m. So, QSYing to 40m is the logical next thing to do.

Without too much tuning around, I find W1LWH on 7.015MHz at S-6 in QSO with Larry, W5TZC. The conversation is about antennas. W1LWH describes his 600W to a ½ wavelength square and on the meter he is exactly as strong as Larry, W5TZC, who says that he is running 1kW to a wire bisquare array up 160 feet. Tuning around, there is no other CW activity heard, not even local stations, and the lower part of the band is wall-to-wall static at about S-1. On sideband I hear the usual South African Mobile Net, run by Alistair, ZS5MU*. He has this net running for more than 20 years and I listen to participants reporting local weather conditions from towns along the coast line. It is said that this service provides valuable information to the many sail yaghting enthusiasts active around the long ZS shore line.

On the next higher band, 30m, WWV is the usual bench mark. It can be heared at a fluttery S-6. On the ham segment there is no activity, not even a trace of the 2 familiar, yodeling misterious RTTY commercial signals usually S-8 to 9 after dark at the lower band edge. With the sun now fairly high, this is as much as can be expected on HF until late afternoon.

LATE AFTERNOON TO EARLY EVENING: 5:00pm TO 7:00pm

At this time, the higher bands are expected to show signs of life but no activity can be found on 20 or 15m. However, on 17m, 9Y4VU is at S-7, working a bunch of Americans split. Activity

fades by 5:30pm. In general, the band seems pretty empty except for a few Europeans working G- stations of whom there is no trace here at all. Noise level is about S-1 with crashes up to S-3

Still, on 17m at about 6:00pm a pile up develops for NP3CW in Puerto Rico. Most callers are from Europe with signals barely above the noise level. I send my call at 400 W output and get a reply after the second try.

MID EVENING UP TO MIDNIGHT:

At 9:00pm, after watching some TV with the XYL, it is back to the shack. There is nothing on 20m and higher bands. However, on 40m some weak European DX signals are heard. Strangely, there is absolutely no local ZS activity to be heard on any band. This must be TV prime viewing time.

At 9:15pm XT2RJA is heard working an inaudible European pile up. I get the standard 599 TU salute after the first call using split. I have the impression that I was the last station he worked before calling it a day. Then, to my surprise, there is JA7ARM, Kon, calling CQ DX on 40m. He answers me but the QSO does not last due to QSB. His WX report was –2C and 1m of snow in Kitaakita City, compared to a balmy 30C here!

Before going QRT for the day, a quick check of 20m is a must. There is Red, K5ALU, from his pick-up in a parking lot somewhere in Florida chatting away with Gary, W0CGR, while Linda is doing shopping nearby. With some eves dropping of his great fist, Red is running an IC7000 at 100W and usinged a screwdriver- type antenna mounted on the tool box behind the cab! After he signs with Gary I manage to get a few words in with him before Linda shows up and they drive off.

I find this a good time to ground the antennas, turn off everything and go to bed.

Next Month's Member Stories:

I never thought this would happen...I had an overflow of members' stories. And, I am eternally thankful to you all. In the queue for the April issue are stories by:

- Vic Rosenthal, K2VCO
- Rick Tavan, N6XI
- John Silva, N3AM
- Fred Jensen, K6DGW

How about "your story?" Remember, email 'em to me at <u>k6rb@baymoon.com</u> and put "member story" in the subject field.

Current Nominees

Need Sponsors	DL1GBZ	Martin
Need Sponsors	K3FX	Charlie Baker
Need Sponsors	K5VR	Stan Ross
Need Sponsors	KB1LZH	Pete Barbella
Need Sponsors	NS8V	Paul H Sorensen

For more details about nominees and status, check the "members only" on the Website:

www.cwops.org

For information about joining CWops, check the Website under "membership."



ND2T, W3WL, VE3EJ, WB9Z, KØIR, 9V1YC, N1DG, EY8MM on their way home from Orkney Island

And, some of our VU members will be doing a DXpedition from VU4!