

July 2006

KL7KC  
Fairbanks, Alaska



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*KL7KC Second Field Day Hits Big*

By Dan Wietchy KL1JP

**Finally - We were the ones that everyone was trying to get!**

At a few minutes after 10am on Saturday June 24th, the Arctic Amateur Radio Club (AARC) was "on the air". For only the second time in the history of our club, Field Day festivities were held in Fairbanks Alaska, and "KL7 Kilo Charley" was repeated again and again into a 1A Alaska station, this time boasting a brand new Spider Beam and a 500 watt amplifier. And responses – whew! Did they ever come back. They poured in by the hundreds. For everyone else, Alaska was suddenly a possibility. Pileup after pileup ensued, even on PSK31. And for us – it was way too much fun.

With the 20 meter band wide open during the day, all the

participants standing around the picnic tables were saying the same thing; "Finally, we're the ones everyone is trying to get". And we did our best too;

to respond on voice, on CW, on PSK31, and even on satel-



tered the old myth of "Nobody can hear Alaska, we're too far away". With the benefit of 24 hours of daylight, provided by Mother Nature, we operated all night here in Fairbanks and needed no additional lighting; no candles, no Coleman lanterns and no hanging incandescent bulbs. And for us, the exceptional generosity of two club members in particu-



lite. This Field Day also shut-

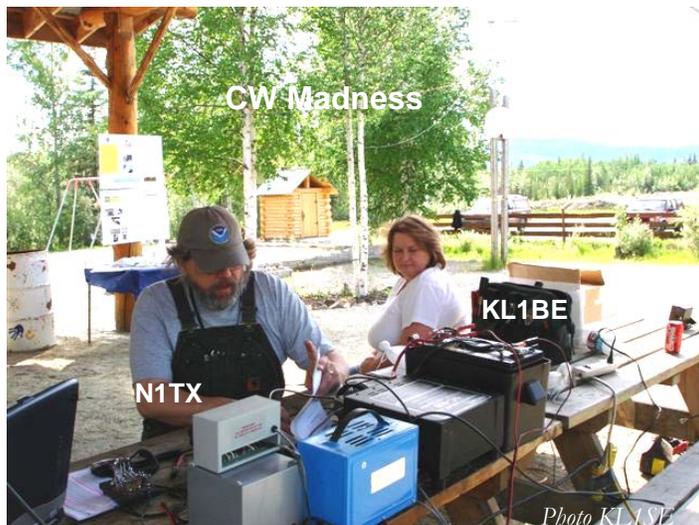
lar; Alex Cryan (AL7EX) and Jim Movius (KL7JM) and their respective donation of a brand new Spider Beam and a SGC-500 amplifier made a definitive difference between being heard and **BEING HEARD.**

Between the constant daylight, the stunning weather and the remarkable generosity of our club members, by far, this will be an AARC Field Day that will go down in the history of the club. I guarantee that KL7 Kilo Charley (KL7KC) will be back next Field Day. We're already making plans. Visit <http://www.kl7kc.com>. #

**Lots more  
FD photos  
at  
kl7kc.com**

**Elections Coming Up!**

- Volunteers wanted to round out the slate of candidates for board and officers for the September elections. Please contact N1TX for info: 488-8399



**Safety  
First!**

## High Sierra Screwdriver Antenna Mount

By Shelley Levine KL1SE

Most of us take for granted our vehicle battery in our cars and trucks. We use them in some pretty bad weather and if we give a little thought to them for maintenance now and then, they will be there for us when we need them the most. When we start a mobile radio or antenna installation we should start right at the heart of it all, the battery. Before you get ready to touch that battery make sure you're ready, no metal or any kind of jewelry on you hands or arms that may come in contact with the battery terminals, no metal in your top pockets of your jacket or shirt that may fall on to the battery. Be careful with the wrenches so you don't ground the positive terminal, remove both cables, positive and negative, wear protective eyewear and maybe a garment to protect your bare skin from caustic battery acid.

I know, lets get on with the antenna installation. Okay, the whole antenna mount is made of aluminum box, plate and round for rust protection. The horizontal support is 2"x 1/4 box. The antenna mounting

vertical is 1" solid round and the plate that holds it all together is made from 1/4". All the mounting bolts, nuts and washers that were used were galvanized to prevent rust.

The wires that needed to be butt connected were shrink treated to make water tight, then wrapped in # 33 black tape. All the wires from the antenna had to go back to the radio, Icom 706 mk2 and they were wrapped in Split-Lume, plastic covering to protect them from our tough Alaska weather and rocky roads. All were tied to places under the frame for support. The entire antenna installation project was done by Larry N1TX, whose help was greatly appreciated.

The last thing, or next to last, was the dreaded ground wire. Be sure to use the very best ground wire you have or can afford, as this wire can make your radio work really well or not at all. Make sure the area you are putting your ground on is clean, really clean, so you have a good contact, then tighten the nut or screw so it will not loosen. Now it's time for a test...

Did we get the lowest SWRs on 20 & 40 meters? You bet ! Our QSO contacts were great, but if in your project you are not satisfied check your pl259, your ground connection or maybe you need another ground? In any case, have fun and keep making those QSOs. Lets keep Ham radio alive. ☺

### HIGH-SIERRA DEALERS

Amateur Electronic Supply

<http://www.aesham.com>

Ham Radio Outlet

<http://www.hamradio.com>

Quicksilver Radio Products

<http://www.qsradio.com>

Amateur Toy Store

<http://www.amateur-radio-toy-store.com>



Complete mount with antenna installed

Stories Wanted  
n1tx@amsat.org

## Squirrel-Proof That New J-Pole Antenna

By Dan Wietchy KL1JP

Rats, there he was again, chewing and gnawing at my roll – up. After several weeks of sling-shot counter attacks, I still have not figured out what it was about my twin-lead antenna that a squirrel found so tasty. So, my ultimate solution was to build a solid, completely weatherproof case that I could hang outside and something those darn squirrels could not chew through. The PVC case is really tough too. Thanks to Rod (KL1Y) for his inspirational unit exhibited at the last AARC board meeting during his Radio-Wireless integration demonstration.

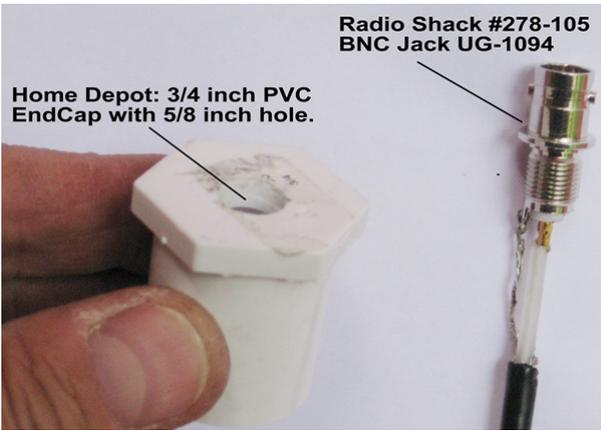
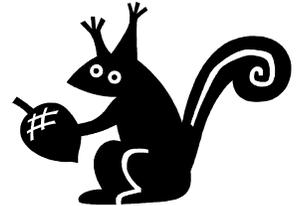
The entire construction project took me about 2 hours to complete. The most difficult part was in soldering the too tiny BNC UG -1094 connector and in finding some way to make it immobile inside the PVC. Prior to using Gorilla glue, every time I used a PL259 to BNC adapter and twisted the connector on, it ripped the internal solder joints. PVC is

very slick and there is no way to screw the BNC plug directly to the tubing. The connector is simply too small. Gorilla glue foams up a bit to fill the voids and then bonds the metal BNC directly to the PVC. It really may be, as their advertisement states, “the toughest glue on planet Earth”.

The location of the T-

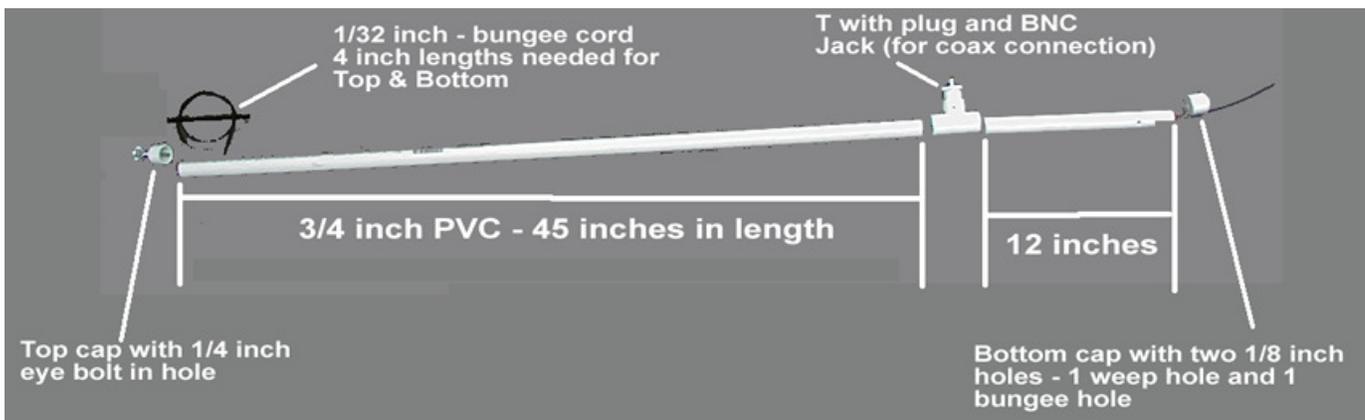
the twin-lead wire, the length of coax coming from the BNC will change too. Although it would seem that a terminal end cap connection would work, I deliberately did not want to position it there. If need be, I wanted to set this case vertically on a window sill and an end connector would simply not be stable enough because it would allow the unit to slip. A 5/8 inch hole in the T connector plug is a perfect fit for the BNC, allowing it to fit the hole yet allowing the lock washer and nut to engage from inside.

I used a small 4 inch length of 3/16<sup>th</sup> inch bungee cord (Beaver Sports) on each end of the assembly. One end of the bungee is attached through a small 1/16<sup>th</sup> inch hole drilled into the end cap while the opposite end of the bungee is attached directly to a hole cut into the center of the twin lead, approximately 1/2 inch from the end. This allows



connector assembly along the main tube is mostly arbitrary. I tried to find a position along the length that represented the balance point for the entire unit. You can place the T-Joint almost anywhere along the length, but realize that as you move it further or closer to the connection points on

(Continued on page 4)



**“The entire construction project took me about 2 hours to complete.”**

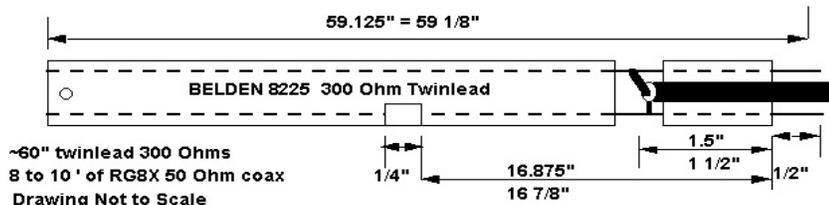
*(Continued from page 3)*

the bungee cord to pull the twin lead taut from both ends, yet allows enough flexibility for differentially temperature change.

By way of construction sequence, you'll want to put everything together except the bottom end cap. Leave it as the last piece to attach. Custom cut the length of the coax cable coming from the BNC to the twin-lead terminal points so there is adequate free-play but no excessive slop. Afterwards, solder the leads, attach the bungee and put the end cap on the unit. ☺



**Completed Antenna Hanging From A Tree**



~60" twinlead 300 Ohms  
8 to 10' of RG8X 50 Ohm coax  
Drawing Not to Scale

**J-Pole Web Sites**

- <http://www.packetradio.com/JPOL4EVER.html>
- [http://www.ozhelpservices.com/50MHz\\_JPole.htm](http://www.ozhelpservices.com/50MHz_JPole.htm)
- <http://www.cmara.org/N1WAS1.htm>
- <http://www.hamuniverse.com/jpole.html>
- <http://users.marktwain.net/aschmitz/antennas/jpolecalc.html>
- <http://archimedes.galilei.com/raiar/mirrordj.html>

**Parts List for Rugged PVC J-Pole Radome**

Quantity	Dealer	Description	Price (pkg)	Price (each)
1	Radio Shack	PL 259-to-BNC (optional)	5.29	
1	Radio Shack	BNC Jack UG-1094	2.99	2.99
1	Home Depot	10 ft. 3/4inch PVC pipe (enough for 2 units)	2.14	1.07
1	Home Depot	3/4 inch Tee	0.56	0.56
2	Home Depot	3/4 inch End Caps	0.36	0.72
1	Home Depot	1/4 x 2 1/2 inch Eye Bolt (enough for 2 units)	0.79	0.40
1	Home Depot	3/4 inch End Cap Plug (Tee plug)	0.79	0.79
1	Home Depot	PVC Glue or Gorilla Glue or nothing (optional)	2.97	
1	Home Depot	1/4 inch Neoprene Rubber Flat Washer (4 per pkg)	0.74	0.19
1		10 inch piece of coax (I'm sure you have some)		0.00
1	Beaver Sports	3/16th inch Bungee Cord - 12 inch		0.20
		<b>Total</b>		<b>6.92</b>

## *Hams Help Bail Out Flooded East Coast*

From *ARRL Letter*, Vol. 25, No. 26, June 30, 2006

Amateur Radio volunteers this week supported communication or remained on alert to assist relief organizations and local emergency managers in flood-stricken regions of the Eastern US. Widespread flooding in several states claimed at least a dozen lives. ARRL Eastern Pennsylvania PIO Bob Josuweit, WA3PZO, says ham radio volunteers in 10 counties in his Section actively aided local law enforcement, emergency management agencies and the Red Cross, which set up about a dozen evacuation centers.

"Hams in some areas may be on duty for several days as river levels slowly drop below flood stage," Josuweit told ARRL June 29. The Delaware River -- which separates New Jersey and Pennsylvania -- crested June 29, and the Susquehanna River a day earlier.

A mandatory evacuation order affecting some 200,000 residents of the Wilkes Barre area in Luzerne County was lifted June 29. Josuweit reports that the Susquehanna crested at nearly 34 feet, 12 feet above flood stage for that area. "In areas where the water has already receded, many utilities are still out of service and local officials are advising residents to stay away from their homes until at least Saturday [July 1]," Josuweit said.

Despite flooding in the area, Josuweit says the Wilkes Barre ham fest <http://www.qsl.net/k3ytl>

sponsored by the Murgas Amateur Radio Club will go on as scheduled Sunday, July 2, at the Luzerne County Fairgrounds, Route 118, Lake Lehman.

ARRL Eastern Pennsylvania Section Emergency Coordinator Al Rabenau, W3AHR, reported the Schuylkill River receding as of June 29. He said Bucks County ARES had been on alert status since June 28. Members established a VHF repeater net and have been staffing several EOCs and shelters. Bucks County EC Harris Stein, NY3H, says ARES/RACES was trimming down some operations at week's end but will continue Red Cross support through the holiday weekend. He anticipates needing operators to assist with damage assessment July 1 and to replace shelter operators.

Due to topography, flooding along the Delaware typically is worst in Bucks County and in Hunterdon County, New Jersey. ARRL Hunterdon County District Emergency Coordinator David Kanitra, WB2AZE, this week placed Hunterdon ARES on a Level 1 alert for possible deployment to assist RACES.

In Mercer County, New Jersey, Emergency Coordinator Kip Burnett, KB2EGI, reported his ARES/RACES team was on standby and no longer staffing the EOC, which remains active. "We may be needed later to assist with water deployment or some other situation," he said. ARES/RACES personnel at the EOC this week moni-

tored river levels.

Burnett called the flooding "basically a repeat of the October 2004 and April 2005 floods," and said officials evacuated the same locations -- an area called "The Island" -- in Trenton as well as parts of Titusville. Conventional communication systems remained intact.

In Binghamton, New York, and surrounding Broome County authorities ordered the evacuation of some 15,000 residents as the Susquehanna and Chenango rivers overflowed their banks, putting some neighborhoods under several feet of water. Parts of Interstates 81 and 88 as well as State Route 17 were closed.

In Delaware last weekend, Justin Kates, KB3JUV, says ARES volunteers diverted their attention from Field Day and prepared to support communication in the wake of flooding in Sussex County, which received 15 inches of rain in some areas. "Emergency management had a difficult time providing road and medical crews to the affected areas due to the high water," Kates told ARRL. The weather event also disrupted conventional communication systems.

While formal activation was unnecessary, Amateur Radio volunteers remained poised to supply any needed communication assistance. A SKYWARN activated, however, and volunteers relayed rainfall reports as well as road and highway reports. ☺

**Members established a VHF repeater net and have been staffing several EOCs and shelters.**



## A Few Interesting Products

By Larry Ledlow, Jr. N1TX

### Power Dressing

I was browsing photo equipment the other day when I came across an interesting offering from NRG Research (<http://www.nrgresearch.com>) Their Power-Vest lines (right) aim to meet the power needs of production and photo staff with wearable battery vests.

The Field and Event vests are designed for two different circumstances. The Field Power Vest incorporates the power of NRG's highest-capacity power belt combined with the comfort and convenience of a photojournalist-style field vest. The Event is designed as a tuxedo or suit vest for formal settings. Both are available with 12 VDC and two cigarette-lighter outlets to power your HT, cell phone, and GPS all day long in the field or well into the night after the opera.

Oh, and at over \$500 each, I expect to see rival Alaskan designs in this newsletter done for much less. A perfect winter project! Team up with someone who sews.

### Car Gear Mounts

Lido Mounts specializes in mobile mounting solutions for everything from GPS units to Blackberries. Their mobile radio products are perfect for hams. The LM500, for example (below) is ideal for mounting remotable control heads to



the dash. Whether glass mount, dash, or console, see <http://www.lidomounts.com/> for mounts from \$12.95 to \$29.95.

### Novelty Radio Gear

Gary Arnold likes to collect oddball radios, and he's managed to turn his passion into an on-line business: <http://www.noveltyradio.com>. Just about every imaginable cartoon character, brand name, and houseware item can be represented in Bakelite, aluminum, or plastic with a radio receiver inside. This would be my first stop when looking for the ham who has everything.

Morse Express stocks a wide array of CW-related toys, including some interesting military keys from China. The K4 and K5 keys were produced for the People's Liberation Army and are quite sturdy for everyday shack and field use. They weigh about 2.25 lbs each, so backpackers take note. TKF Soviet military keys (1980s vintage and also quite collectable) are in stock as well. Visit <http://www.mtechnologies.com>.

### Enclosures and Boards

If you have a need for small or large aluminum enclosures or brass boxes, check with K3IWK. Charles Byers provides cabinets, boxes, rack shelves, brackets, panels, tower accessories, and parts for each are available in single or small quantities at very reasonable prices. He also offers a line of VHF and UHF antennas in addition to power divider kits for 144-1296 MHz. <http://home.flash.net/~k3iwk/>

SchmartBoard/EZ solves surface-mount circuit construction problems — parts placement and clean soldering — in a clever way. Unlike all other circuit boards, the solder mask is higher than the pads, thus creating canals. The floor of the canal is the pad surface into which the legs of the IC fit into this canal, thus allowing easy hand placement. Use a fine tip soldering iron to heat up the existing solder on the pads in each of the canals and push the soldering iron from the lateral end of the canal until the iron touches the chip's leg. The solder stays in the canal, thus assuring that no shorts are created. <http://www.schmartboard.com/> ☺

If you see products that hams might find amusing or useful, let us know!

## Ladder Line to Eternity — Episode 4

By Eric Nichols KL7AJ

Dill Snapfelter, W3OIC, stared in disbelief at the ancient grid dip oscillator on the solder-scarred bench which graced the south wall of his garage. The pointer on the milliammeter slowly swung back and forth between 0 and full scale about once every five seconds. Dill had never seen anything like it before. He picked the instrument up, adjusted the frequency, shook it gently, adjusted the sensitivity pot, and held his tongue sideways, all to no effect. The pointer swayed back and forth as if under command of some unknown force. Just to be sure, he changed the plug-in coil to a higher frequency unit. Again, no change ensued. The mysterious oscillation of the Grid Dip Meter continued, unmitigated. There was only one remaining solution. He pulled the plug on the ancient device. To his utter amazement, the pointer still swung back and forth, energized by some unseen power...or being.

Dill put the GDO back down on the bench, beads of sweat forming on his puzzled brow. He backed slowly away from the bench toward the kitchen door, his hands now visibly shaking. He wondered if perhaps the phenomenon was just the result of a few too many cans of Ejection Seat Cola, his standard beverage of choice for long hours at the workbench.

Stepping into the kitchen, he quickly closed the door, and headed for the refrigerator. He rummaged around the shelves to look for something nutritious that could perhaps cancel

out the effects of a possible caffeine overdose. He found a half-full quart carton of whipping cream, and chugged it down, somewhat to his regret. He squashed the empty carton and balanced it on top of the contents of the already-overflowing trash basket, then returned to the refrigerator in search of something a bit less revolting. He eventually ended up throwing together a peanut butter and Brussels Sprout sandwich, garnished with just enough Worcestershire sauce to make it palatable.

As he was about to sink his teeth into his culinary masterpiece, he heard a pounding at the front door. He glanced up at the kitchen clock...it was three in the morning. Suddenly, the sandwich didn't seem so appetizing.

He waited, hoping whatever was at the door would go away.

It didn't. An even more demanding pounding on the door ensued, to Dill's dread. He put his sandwich down, cowering behind the counter. "W-h-ho's there?" he called out, feebly.

There was no answer. Instead, the pounding resumed, even more insistently.

Dill realized whatever was out there was going to let itself in, with or without an invitation, and that there was no point in delaying the inevitable. Trembling to his marrow, he approached the door. He turned the knob, and slowly opened the door, to behold a behemoth of a man, towering over him in the doorway. A pair of spurs glistened from his heels in the eerie moonlight.

"H-h-hello?" Dill squeaked.

The stranger stepped in through the door past Dill, not even visibly acknowledging his existence. He stopped in the middle of the living room, scanning the premises with an eerie, cold, calculating gaze.

"It's here," the man declared in a subterranean bellow.

"W-what's here?" Dill managed to ask, his voice quivering.

Dill closed the door, staring at the man in fascinated horror. The stranger turned, and headed toward the kitchen. He spied the sandwich on the counter. He picked it up, took a gargantuan bite, chewed on it thoughtfully, and swallowed. "Needs horseradish," he declared, after an excruciating pause. He set the remaining half of the sandwich back on the counter in disgust. "But we have more important matters now."

"W-w-we?" Dill queried.

Without a word, the stranger opened the kitchen door leading to the garage. Dill's first inclination was to run out the front door, but instead, he found himself compelled to follow the giant into the garage. As the visitor passed the grid dip oscillator, the meter ceased its incessant swaying, to Dill's astonishment. The stranger glanced at the meter, paused, and scanned the garage with his steely eyes.

Again, Dill stared at the grid dip oscillator in disbelief.

"Y-y-you're certainly welcome to my GDO, mister..."

"Johnson. E.F. Johnson," the stranger said, sounding just a bit more human.



**An even more demanding pounding on the door ensued, to Dill's dread.**

(Continued on page 8)

**"Mr. Johnson...sir. I just want you to know that, I really consider this a privilege to even be here with you..."**

*(Continued from page 7)*

Dill felt the blood drain from his head. "E. F. Johnson?! As in—as in—as in—E.F. Johnson?!" he sputtered.

Extra Fine Johnson didn't answer the question. "It's here, somewhere."

"What's here...M-m-mister Johnson?"

"My Ranger."

"Your *Ranger*?" Dill said, lamely. Finally, the light came on. "Oh! Oh! Oh, my! But, but. Mr. Johnson. Sure, I had a Ranger. But. Well, I haven't had that since 1967. I sold that to a new novice..."

Extra Fine Johnson narrowed his eyes at Dill. "All of it?"

Dill stepped back in confusion. "Well, sir. I don't know how I could sell *part* of a Ranger."

Johnson spun on the heel of his spurred boot. "It's here. I know it." He immediately headed for the bins of parts at the east end of the workbench, opening each drawer in a surprisingly deliberate and reverent manner, not a desperate ransacking as Dill might have feared. Occasionally, he'd find a resistor in a capacitor drawer, and he'd immediately put it in its rightful place. When he found an NPN transistor in with the PNP's he set that aright, as well.

"Maybe if you told me just what your were looking for, I could help," Dill ventured.

Johnson glanced at him briefly as if he didn't exist, and returned to his labors. Dill watched in silence for a few moments and then tried something else.

"Mr. Johnson...sir. I just want you to know that, I really consider this a privilege to even be here with you. There are so many things I'd like to ask you. I mean...you're really a legend! I'd really like to talk with you a while, if I could. You know...just chew the rag."

Johnson continued his search, seemingly oblivious to Dill's presence. Suddenly, he stood straight up, squinting at a component held between his thumb and index finger. It was a white porcelain plate cap connector.

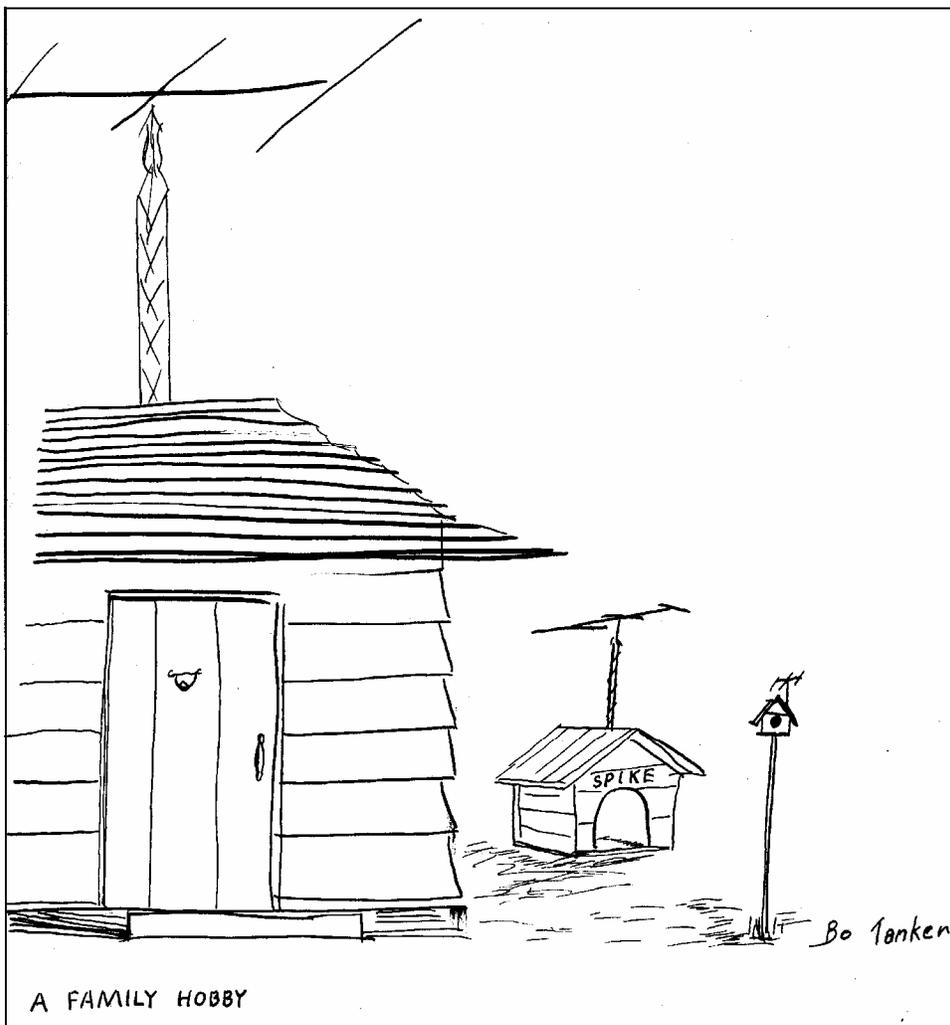
"This is it!" the giant declared, cracking a barely perceptible hint of a smile.

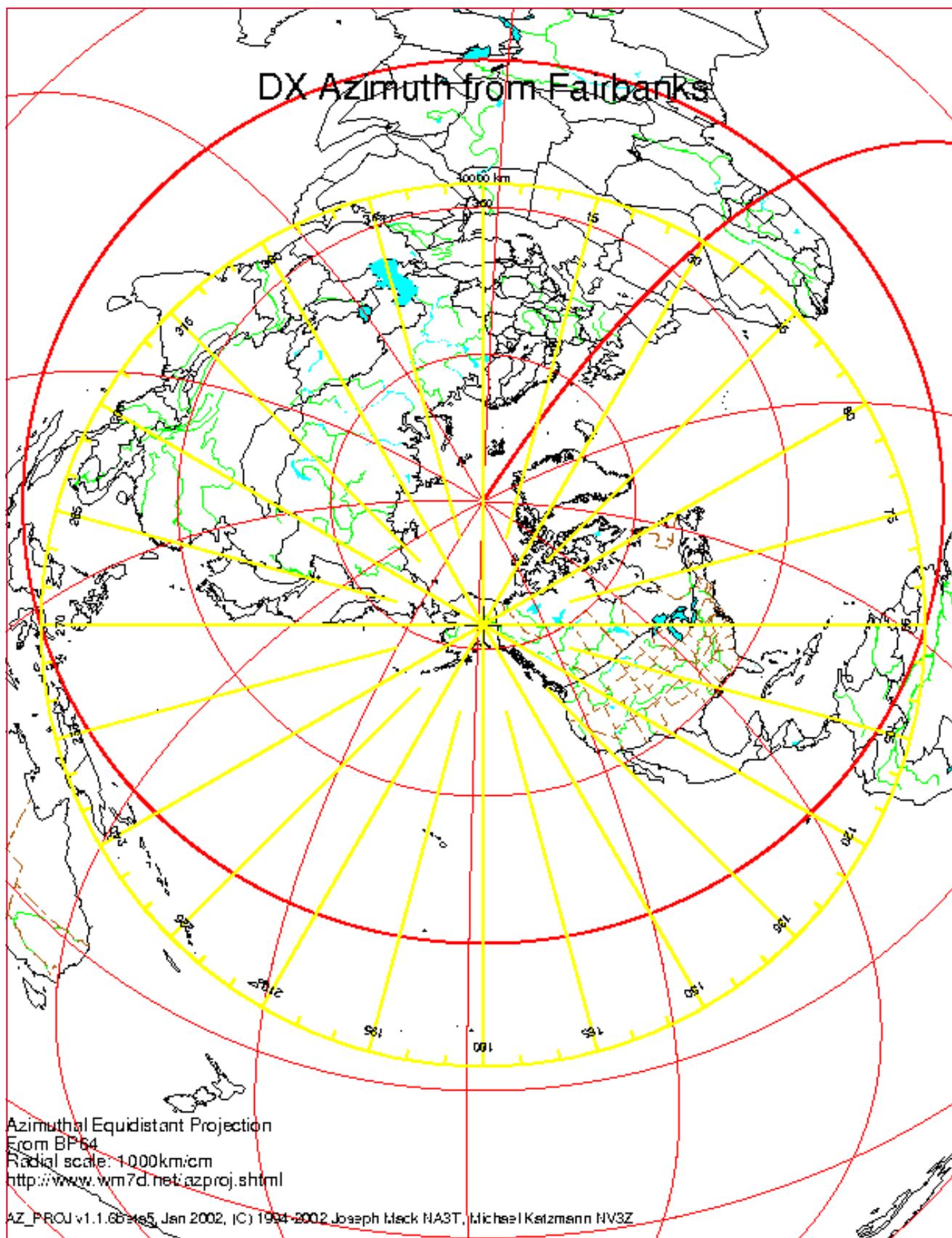
"H-how in the *world* did you know that was *here*?" Dill choked. "I didn't even know it was here!"

Extra Fine gave Dill a withering glance. He jabbed toward his silver badge with his thumb. "That's why I'm E.F. Johnson, and you're not." He placed the plate cap connector in his shirt pocket, and turned away. He paused, and faced Dill again. "A word of advice, son."

"Yes?" Dill said, sounding as weak as he did when he heard the first pounding on the door.

"Lay off the caffeine, boy. You're jumpier than a jackrabbit in a wolf holler." He turned and headed toward the kitchen, the jangle of his spurs echoing off the garage walls. ♯





## Arctic Amateur Radio Club

Membership \$20 individual, \$25 family. Send checks to  
AARC  
PO Box 81804  
Fairbanks, AK 99708  
Phone: 907-479-5203  
E-mail: [bennie@acri.net](mailto:bennie@acri.net)

Visit [www.kl7kc.com](http://www.kl7kc.com) for the  
latest club news and events!

Service to Interior Alaska: We can, we will, we do.



**FROM THE BOARD: REGULAR CLUB MEETINGS WILL CONTINUE THROUGH THE SUMMER.** After identifying the advantages of regular opportunities for club contact throughout the year, the AARC board agreed to continue regular club meetings at IARC in June, July, and August! ♣

## WORLD SCOUT FREQUENCIES

Band	SSB	CW
80 meters	3.740 / 3.940 MHz	3.590 MHz
40 meters	7.270 MHz	7.030 MHz
20 meters	14.290 MHz	14.070 MHz
17 meters	18.140 MHz	18.080 MHz
15 meters	21.360 MHz	21.140 MHz
12 meters	24.960 MHz	24.910 MHz
10 meters	28.390 MHz	28.190 MHz

New Scout Camp Calling Protocol has been proposed to help scouts and interested supporters to contact each other easier. See <http://www.arrl.org/news/stories/2006/07/06/102/?nc=1>



## Calendar of Events

**2006 AARC  
Hamfest a Go!**  
Jim Movius KL7JM  
confirms the Elks  
Lodge as the venue  
for the 2006 AARC  
hamfest and social  
on September 30th.

**July 1:** Canada Day Contest --  
CW/Phone 0000Z-2359Z

**July 1:** License exams, Noel  
Wien Library 1 PM. Contact  
NL7XH.

**July 7:** Club meeting UAF  
IARC @ 7 PM. Pre-meeting  
starts at 6 PM.

**July 15 1800Z– July 16 2100Z:**  
CQWW VHF Contest. 50 and  
144 MHz. [http://www.cqww-  
vhf.com](http://www.cqww-vhf.com)

**Aug 4:** Club meeting UAF  
IARC @ 7 PM. Pre-meeting  
starts at 6 PM.

**Aug 5:** License exams, Noel  
Wien Library 1 PM. Contact  
NL7XH.

**Aug 19-20:** International  
Lighthouse and Lightship  
Weekend. [http://illw.net/  
index.html](http://illw.net/index.html).

**Sep 1:** Club meeting UAF  
IARC @ 7 PM. Pre-meeting  
starts at 6 PM.

**Sep 2:** License exams, Noel  
Wien Library 1 PM. Contact  
NL7XH.

**Sep 30:** HAMFEST. Elk's  
Lodge. STAY TUNED!

### SPECIAL EVENTS

World Cup Football special event stations on the air till July 16 -- Deutscher Amateur Radio Club (DARC)-sponsored special event stations with distinctive prefixes have been on the air since the start of the World Cup Football (soccer) competition in Germany. A dozen DR2006-prefix stations are on the air from each stadium location, 25 DQ2006-prefix stations represent districts and DQ2006J is a "YL activities" station. Gold, silver and bronze award certificates are available. For more information, see [www.amateurradio2006.de/\\_int/  
index.html](http://www.amateurradio2006.de/_int/index.html)