W9WLC

Lake County Ham Radio Journal

N9UHF

www.welcars.org | July/August 2008 | www.stonedmonkey.org

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Secretary:	K9BTW - Dan drbero@earthlink.net
Treasurer:	K9PLS - Penny k9pls@mindspring.com
Newsletter:	K9TMS - Tom k9tms@mindspring.com

Meeting Schedule

WeLCARS Meeting
July 23 - 7PM
Fox Lake Community Center
23 South St., Fox Lake, IL
Topic: TechFest III Prep.

TechFest III Setup
July 25 - Afternoon
Fox Lake Community Center

WeLCARS Meeting
August 6 - 7PM
Fox Lake Community Center

VE Testing
August 13 - 7PM
Fox Lake Community Center

WeLCARS Meeting
August 20 - 7PM
Dino's Den Restaurant
88 E. Grand Ave., Fox Lake

Contesting

European HF Championship
Aug 2 7AM – 7PM
1.8 - 28 MHz Phone & CW
lea.hamradio.si/~scc/euhfc.html

ARRL August UHF Contest
Aug 2 1PM – Aug 3 1PM
222+ MHz Phone, CW, Dig.
www.arrl.org/contests

North American QSO Party
Aug 16 1PM – Aug 17 1AM
1.8 – 28 MHz Phone
www.ncjweb.com

State QSO Parties
Maryland-DC – Aug 9-10
New Jersey – Aug 16-17
Hawaii – Aug 23-24
Ohio – Aug 23-24

Hamfests

TechFest III: Revenge of TechFest
July 26 – Fox Lake, IL
WeLCARS World Wide HQ
(aka Fox Lake Community Ctr.)
Hamfest hours 8AM – 1PM
VE Testing 10AM – 1PM

Illinois State Convention
August 3 – Bolingbrook, IL
www.k9bar.com

Hamfesters Radio Club
August 10 – Peotone, IL
www.hamfesters.org

ORC Ham & Hobby Swapfest
September 6 – Cedarburg, WI
www.ozaukeeradioclub.org

CFMC Radio Expo 2008
Sept. 13-14 – Belvidere, IL
www.chicagofmclub.org

The WeLCARS Cheap Yagi Antenna Project, Part 2

Chris Burke, N9YH

When last we left off, we had prepared our antennas and were ready for assembly. Like we mentioned in our last installment in the March issue, one of the things we learned about this design was that space is at a premium on the brackets we made for our SO-239s and matching networks. We found the heads on the original #8 screws we intended to use were too big. Tom K9TMS made another quick order with McMaster-Carr and got us some socket head screws instead. The advantage was we didn't have to worry about the driven element shorting out onto the bracket. The disadvantage is it requires an Allen wrench to get the screws tight.

Getting everything assembled onto the bracket took some trial and error as well. Each side of the T-match needs to be insulated from the bracket, which is grounded to the shield of the feedline. We used nylon bushings and washers for insulation, but the washers had to be trimmed on one side to fit against the SO-239. As you can see from the next photo, we fed the nylon bushing through the holes and connected the center conductors of the coax baluns and the T-match wires, which were in turn connected to the driven element by the brass shorting blocks.

Fig. 1. The assembled bracket. Note the change to socket head screws. Even with the socket head screws, there still isn't much clearance to the bracket. You can also see in this photo that the center conductor of the SO-239 is connected to one side of the T-match by a very short section of solid 12-gauge wire. The coax balun connects to the other side of the T-match.

Fig. 2. Assembling the driven elements. The black nylon washer (note how the edge near the SO-239 is trimmed flat) and all the connections were made on the feedline side of the bracket, and the nylon bushing and the screw were fed through the hole from the other side.

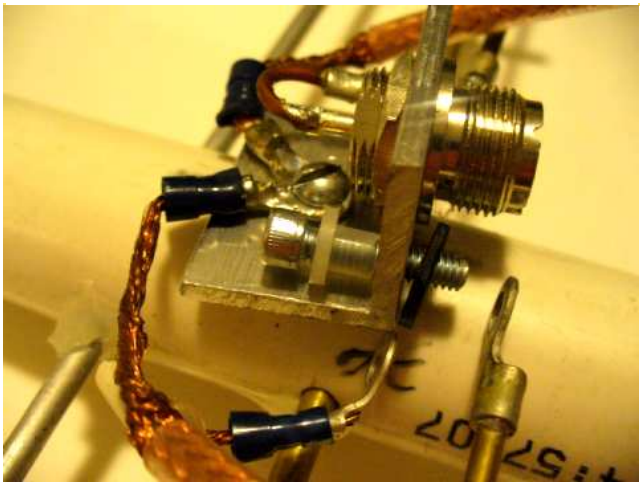

Fig 3. Another look at the bracket assembly. In this photo you can see the shield of the coax from the impedance matching section grounded to the bracket. Each side of the center conductor is attached to each side of the T-match.

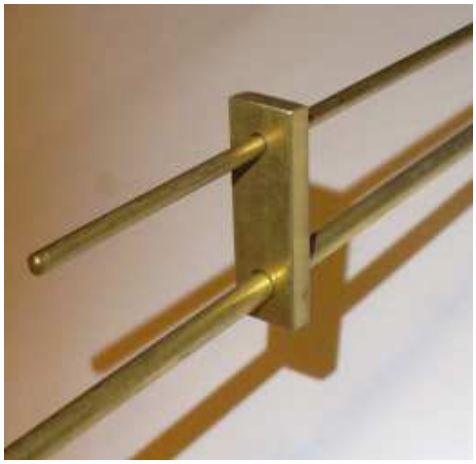

Fig 4. A close-up of the brass shorting block from the 2-meter antenna. Larry K9LGP cut, drilled, and grinded the edges of all the shorting blocks. Each piece came out really well – nice work, Larry!

Fig. 5. A closer look at the bracket and coax balun of the 440 MHz antenna. The center conductor of the SO-239 is connected to one side of the T-match. The center conductor of the coax balun connects each side of the T-match together. If you build an array of similar antennas and stack them together for more gain, make sure to connect the center of the SO-239 to the same side of the T-match on each antenna to maintain a proper phase relationship. You can also see that each element is secured to the boom with hot glue.

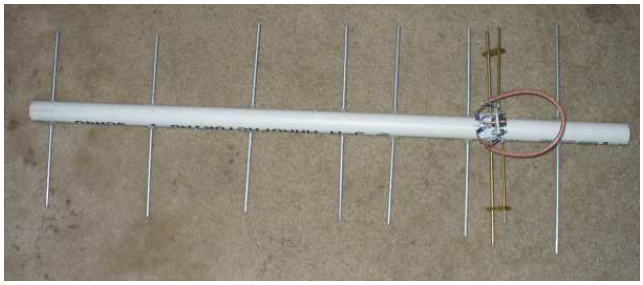

Fig 6. The finished 440 MHz antenna. The coax balun is secured behind the driven elements in both of these antennas. Putting the balun in front of the driven element will lead to a high SWR in the neighborhood of 3:1.

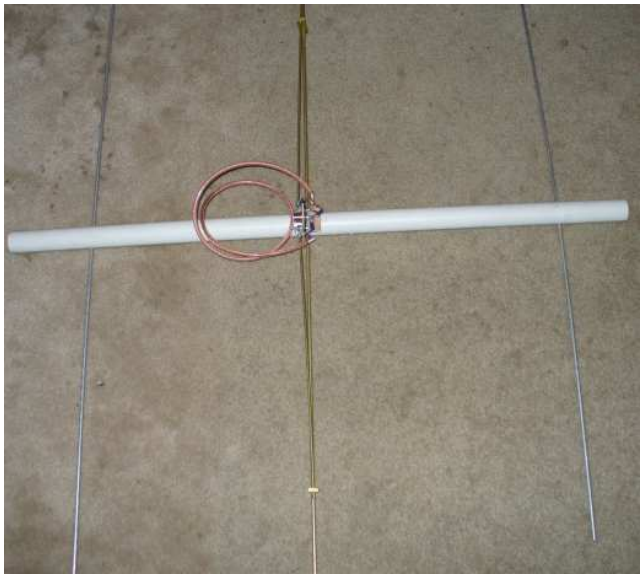

Fig. 7. The finished 2-meter antenna. We only used one director in the final design since it gave us a better SWR.

So how did we do? Did we accomplish our goal? The final total cost for all the materials, including all the trial and error, was about $65 for each set of antennas. That's not bad considering a small Cushcraft dual band beam costs $90 from Universal Radio. The often cited gold standard for portable satellite work, the Arrow antenna, has elements for both 2-meters and 440 MHz on one boom and costs $135, though it also comes with a small duplexer.

Do the antennas work? I checked my finished antennas using Lee's KC9JQX MFJ antenna analyzer. The 440 antenna had a fantastic SWR of 1.3:1. The 2-meter antenna wasn't bad at 1.9:1 once we removed the director closest to the driven element. Both SWR curves are reasonably flat across both bands. I used the 440 antenna during the Spring Sprint Contest in April with good results on FM.

Lessons learned? Quite a few, actually. First of all, don't expect to get an antenna project this ambitious done in just a few meetings on Wednesday nights. Next time we'll shoot for a full day during the weekend. Second, computer modeling of antennas using Yagi for Windows is pretty accurate. Our only problem came with predicting the behavior of the T-match on the 2-meter antenna. While we did a good job interpolating the K1FO 440 MHz design to get a smaller antenna, things didn't translate as well to the 2-meter antenna. That's not to say the 2-meter antenna isn't usable, but I'd like to have an SWR a little farther away from 2:1. A folded dipole has the same 4 to 1 impedance transformation that a T-match does without the inductive reactance so we could tune it without the guesswork. Third is the by now obvious lesson of mocking up the design before starting to build it with a group!

Next up for our antennas – putting them to work making contacts on the satellites. I'll let you know how it goes!

73! Chris N9YH

Monkey Madness June 2008

Tom Staley, K9TMS
President, Stoned Monkey VHF ARC

The Stoned Monkey VHF Amateur Radio Club was active from EN52uj near McHenry, IL. It is hard to believe how far this group has come in a short period of time. I was September 2006 that we submitted our first contest log with a group of only about 6 to 8 at the time. Our common goal has always been to do the best that conditions allow us, and, if at all possible, do better than we did last time. The group has grown now to 14 and has managed to go out and better their performances of June 2007 and September 2007. One of the things that most impressed me was the number of younger hams that have joined the group as well as the older gray haired hams teaching the art of VHF contesting to the new comers. Result – we all had a great time!

Fig 1. Hear no evil, speak no evil, and see no evil???

Fig 2. Plenty of help on the six meter array!

The bands for the most part were in decent condition. Especially Six! Six was open pretty much the entire run of the contest with contacts across the USA, Canada, Bermuda and Virgin Islands. This is the first time I can recall this many contacts on six that have been out of the 48 states area. One of the really neat things that happened was when one of our new Hams managed to snag the Maritime Provinces in Canada, not a big deal to some of us Gray Hairs but this Ham's first contact outside the USA. His reaction that he had also managed to work VP9GE in FM72 in Bermuda was somewhat delayed until he was able to get a close look at the grid map!

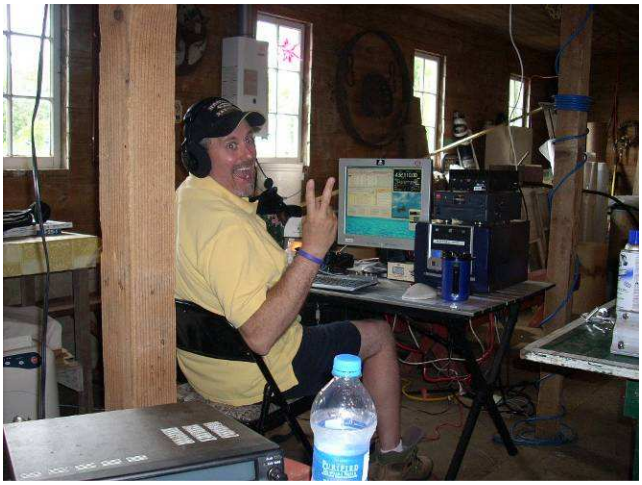

Fig 3. Two points for each 432 QSO, right?

Our Six meter station, although the same equipment for the most part as last year, has been improved with a Universal Tower getting the stack of two 5-element beams up to 32 and 46 foot heights. Another new addition here was the use of the Penninger mast. Problem was we need to have at least 18 feet of mast for the antennas yet were not able to transport this length of mast to the site. Using the mast from Penninger we had one 10 foot section and one 8 foot coupled with one of his mast clamps. The assembly performed better than I had hoped.

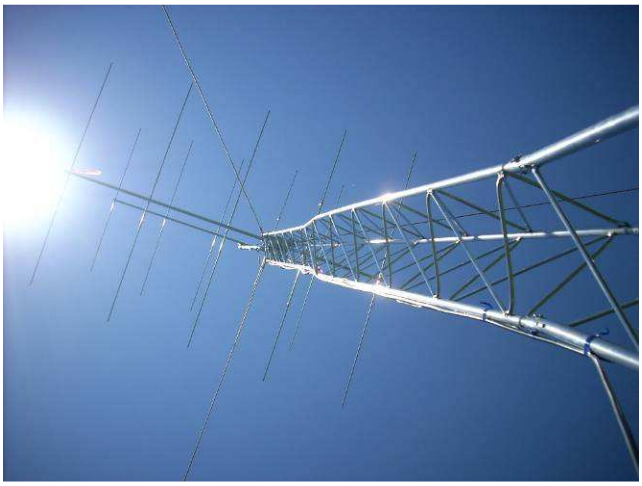

Fig 4. Looking up at the 6-Meter tower and array.

Our Two meter station remained unchanged from last September with a 19 element boomer mounted on top of what we are calling the "N9REP Hula Tower". This tower stands 20 foot tall with 10 foot of mast above with no guy lines. The design is simple and works well, as well as keeping with the group's K.I.S.S. (Keep It Simple, Stupid) mentality.

Fig 5. Wendell N9REP demonstrates the sturdiness of the "Hula Tower."

On 222 and 432 we made some significant changes in our efforts to always improve things. This time out we stacked antennas on 222 with a pair of 15 element boomers, as well as a stack of 19 element boomers on 432. The improved antenna systems really pulled in the weak ones!

Fig 6. The 432 antenna stack.

Fig 7. The 222 stack with Curious George watching for DX!

Along with all the radio fun we had, we also ate really well! The credit for this goes to George KC9AAX for dinner and Wendell N9REP for breakfast. And of course it was all health conscious food!

Fig 8. Desert! Birthday cake was supplied by Penny K9PLS; pudding by KC9AAX.

Fig 9. Breakfast by N9REP. Hopefully my cardiologist ain't lookin'!

Weather, for the most, part was in our favor. There were a few periods that we had to stop operations, as thunder storms crossed the area, but these were short lived and only interrupted our contesting effort briefly. During these short down periods we had an opportunity to discuss future efforts and improvements.

Our contest effort would have been much harder if it wasn't for our gracious hosts at the Pioneer Christmas Tree Farm. Many thanks to Alice, Bill and Chuck for allowing us to use the farm for our Electromagnetic Mayhem. We would also like to thank all the stations that participated in the contest; without your participation, things would have been very boring! We hope to work you all again in September if not sooner.

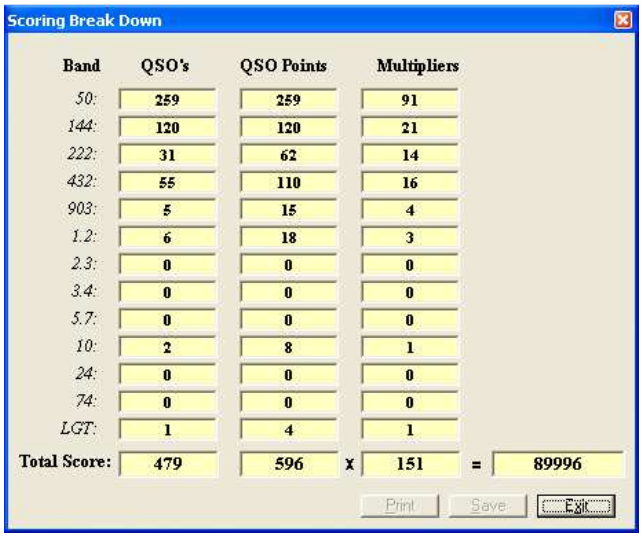

Fig 10. The scoring break down speaks for itself. Nice job everyone!

73 de Tom – K9TMS

WeLCARS Field Day 2008

Chris Burke, N9YH

WeLCARS/Stoned Monkey Field Day 2008 was marred by a few, well, complications. Our first problems surfaced when Contest Commandant Tom K9TMS got a bit of a health scare right before the contest. Though it turned out that all was well and Tom will continue to eat many more helpings of Guadalupe Chili at contests, the restrictions Tom was on at the time put a damper on his ability to move antennas faster than a locomotive and leap tall towers in a single bound. With our Friday preparation day and some of our more ambitious antenna plans scrapped, many of us headed out to start our preparations on Saturday morning.

Despite there being some confusion as to where different stations would go, Joe N9IFG and I found the longest piece of real estate we could find and went about erecting our 80-meter antenna – a 300-foot long modified double-ended Zepp. You can tell a lot of people how long 300 feet is; it's as long as a football field or about four tractor trailers, but you really don't get an appreciation for it until you put up an antenna that long. Things started looking up when I brought my TS-850 out of the case and found it working well on 80-meters despite a less-than-ideal SWR of 2.6:1 through about 200 feet of somewhat lossy coax.

Fig 1. Conditions were breezy even early on. Is that just the wind or an Elvis pompadour? Only my hair-dresser knows for sure!

Fig 2. K9HA in the 20-meter tent with the 80-meter tent in the background.

Tom was running 40-meters using a dipole out of his motor home, which got awarded the Purple Heart when the awning got ripped off by the stiff breeze out that morning. Terry K9HA set up a tent and his 20-meter station with a folded dipole set up in as an inverted vee. Maybe we should have quit while we were ahead when the gusts claimed another casualty and tossed Joe's free Kingsford canopy into the side of Terry's car… An awkward silence and an, "I'm sure that'll buff out," later we moved on to the VHF antennas.

Fig 3. "Evil Joe" KC9LWF, Joe N9IFG, Terry K9HA (that's his elbow behind Joe), and Jay KC9NJZ erect the 20-meter antenna. A part of the 80-meter monster is in the background.

Our other canopy held the Get On The Air, or GOTA, station, 6-meters, and our free VHF station set up on 2-meters. We had hoped the fantastic 6-meter openings the Monkeys enjoyed during the June VHF QSO Party would continue and our 6-meter station would rock and roll. It nearly did, but not due to the hoped-for pileups.

Fig 4. Getting the 6-meter antenna in the air.

It was shortly after 1PM when we were finishing up the VHF antennas. Since the 80-meter station was up and running with the exception of the computer, I couldn't wait to make my first contact with my TS-850. At 1:20 I sat down at the radio and searched and pounced. I worked about five stations within a couple minutes. "Not too bad!" I thought, expecting the activity to continue. Unfortunately, it didn't. Alternating between calling CQ and tuning around didn't help much and I think I worked about 3 more stations in the next hour. Terrible atmospheric noise made working some stations difficult, and the band was mostly dead. Other operators reported the same conditions – more static crashes than stations heard due to strong QRN.

Fig 5. "Let's take a break and go parasailing with the tent!"

As if things hadn't been hard enough, in the mid afternoon the storms rolled in from Rockford. Tom was able to amuse himself by seeing how long he could make an arc from the center conductor of the PL-259 that led to his 40-meter dipole. My 8-year-old son Jonathan and I packed up the radio and took to the truck and amused ourselves by watching Mark KC9KCW, Good Joe KC9LFP, Jason "Evil Joe" KC9LWF, and Christopher KC9MKL hang on for dear life as the GOTA/2-meter/6-meter tent threatened to blow away and take all of them to Oz.

Fig 6. N9IFG's attempt at modern art. The wind helped.

Once the weather calmed down, we had to wait for a second storm to pass through from the southwest. Once the rain had finally stopped, after a delay of a few hours, it was time to assess the damage. Happily, all of our antennas survived the wind. The center support for the mongo 80-meter antenna needed a little shoring up and guying, but nothing fell down. The 80-meter tent also fared pretty well – a small amount of water blew in, but nothing that got in the way of setting up the station as soon as the rain passed, apart from guying the center support on the antenna. The 40-meter station fared well, of course, since it was safely in Tom's motor home, but everyone else had some water to deal with in their tents when it was all said and done.

Fig 7. KC9LWF helps a prospective ham get on the air

Soon we were up and running again, and as the evening wore on Joe went on a pizza run to get us energized just in time to take the whole setup down. Since we learned that more rain was on the way and we weren't on the way to breaking any Field Day records, we decided to call it quits on Saturday night.

Fig 8. "If Joe doesn't get here with that pizza soon we'll have to eat Mark…"

Cutting out of Field Day early seemed to only enrage the mosquitoes. The swarms we battled as we dismantled all the stations and put the tents away were often of biblical proportions, especially if you had to get close to the trees to dismantle a kilometer long 80-meter antenna. We were able to make short work of everything – most of the antennas came down quickly and right before dark.

That's not to say that it was all bad – there were some bright spots. We were able to get a few young prospective hams on the air, most notably Christopher's daughter Jenna who made a contact with a maritime mobile station near Rhode Island. Jonathan operated for a short time, but wasn't able to quite complete a contact because the station we were working was a little weak and his voice just didn't have enough oomph. Regretfully, I'm not sure of the names of the other two boys that showed up for a short time with their dad. Both of them were quite eager to operate, and the younger of the two got on a 80-meters just as the band was starting to open up a little bit at dusk. I'm sure his call of, "Whiskey Field Day! Whiskey Field Day!" put a smile on the face of the operator we were trying to work.

Fig 9. Christopher KC9MKL and daughter Jenna working the bands.

For next year our plans are to forgo roughing it and to operate from the WeLCARS Worldwide Headquarters. (Rule mongers take note: WWHQ is fair game for an "Alfa" category operation because the building doesn't house a permanent station. Certain other Field Day operations that you may or may not have heard about changed their operation because the building they may or may not have been using housed a permanent station. Now move along. Nothing to see here.) Tom is also considering scaling back our power to below 150 watts to score the 2x power multiplier. Our plan now is to test out our prospective new Field Day digs during the ARRL November Phone Sweepstakes November 15th and 16th. (Bambi killers take note: this is two weekends before Thanksgiving and the weekend before shotgun deer season. And I would appreciate some of those Slim-Jim-like deer snack sticks. That is all.)

Field Day 2008 by the Numbers:

Rainstorms Survived: 2
Mosquito Plagues Endured: 1
Max Gust Speed: 31 MPH (from wunderground.com)
Cars Damaged: 1
Canopies Collapsed: 1
RV Awnings Eviscerated: 1
Pizzas Eaten: 4
Computers Networked: 4 out of 6
Gallons of Bug Spray Used: 384
Mosquito Bites Scratched: 1,482,803
QSOs Made: Not many…

Despite this year's shortcomings, a good time was still had by all and I'm sure most of the operators are looking forward to our next group contest outing. I know I am!

73! Chris N9YH

WeLCARS Meeting Minutes July 2nd and 9th

Chris Burke, N9YH

1. CW Study Group

There is a lot of interest in the group to learn CW, so we're planning to start some CW study sessions beginning with the meeting September 3. A CW net is also in the works, starting with 2-meter FM and eventually moving to straight 2-meter CW (you'll need an all-mode transceiver for that). The plan is to bring those of us (your humble servant included) that don't know CW at all up to speed and refresh the CW skills of the rest. Some self-study will probably be needed, and a fantastic program is available for that at www.g4fon.net – click on Koch Trainer Version 9 from the menu on the left.

2. Movie Night!

July 2nd was movie night at the WWHQ. Joe N9IFG brought in episode 16 from Amateur Logic TV (www.amatuerlogic.tv) which featured an interview with Martin F. Jue, the big kahuna behind MFJ Enterprises, an interesting bit on constructing a high gain 802.11 antenna from a roughly parabolic metal bowl, and a remarkably dry review of the Yaesu ATAS-120 automatic antenna where, curiously, we only saw the antenna for about 10 seconds out of a 5 minute segment.

3. TechFest III: Revenge of TechFest

TechFest III will be on July 26th at WeLCARS Worldwide Headquarters. The doors open at 8AM and VE Testing will be 10AM-1PM. Georgette KA9VPG will head up the galley, starting with early morning doughnuts and hot dogs and such starting at 11AM. There will be a drawing for an Icom IC-V8Sport HT for any participant in the youth classes that went on to get their ham ticket including those who pass their tests on the day of the 'Fest. We'll be discussing the final TechFest plans at the July 23 meeting and setting up for the 'Fest starting on the afternoon of Friday July 25.

4. And Finally…

…from the Department of Dental Hygiene. Field Day just wouldn't be Field Day without junk food. With the BattleSpork (http://www.combatreform.com/spork.htm) now you can have your cake and cleanse your palette, too. And why not enjoy a refreshing shave afterward? After all, you'll want your gas mask to seal properly after your fellow hams have eaten Guadalupe Chili.

73! Chris N9YH

Larsen NMO Antenna Mount Review

Chris Burke, N9YH

I recently found myself in the unenviable position of having to replace the antenna mount on the roof of my truck after it had an unfortunate encounter with my garage. I had originally used an Antennex mount that came with its own PL-259. The mount was fine, the same as any other NMO mount I've used, but the PL-259 left a lot to be desired. The shiny "Japanned" finish on the PL-259 made it impossible to solder. The extra money you pay for silver plated connectors is well worth it.

This time I had a small supply of silver coated PL-259s, so all I needed was the NMO mount and some coax. (No, I supposed I really didn't need the coax – I could have soldered a new NMO onto the coax that I had but that seemed to be entirely too much trouble for the sake of saving $7.) The AES catalog came to the rescue and I ordered a Larsen High Frequency NMO mount with no connector (part number NMOKHFUD $12.99 aesham.com). To Larsen, "High Frequency" means over 1,700 MHz meaning this mount would work just as well at 2.4 GHz as it does at 144 MHz. Note that I'm just talking about the mount here, of course you'd still have to worry about coax losses as frequency increased. (Yep, the loss at 2400 MHz on 15 feet of RG-58 is at least 3.6 dB. I am not making that up.)

When I got the mount I was impressed by its sturdiness. Compared to your standard issue NMO mount this seemed indestructible. The added heft made installation a little easier since I didn't have to worry nearly as much about twisting or breaking the connection when I tightened it down and made sure it was in contact with bare metal on the underside of the roof.

Fig. 1. The underside of Larsen's beefy NMO mount and the flowery print on the pad of the author's dining room table.

Lido Mounts LM-300 Seat Mount Review

Tom Staley, K9TMS

Many of us have struggled over recent years trying to shoe horn a radio into the likes of today's new cars. Recently I received a new company vehicle and found that I was also now trying to figure out where to place a radio inside one of these cars.

The new company vehicle is a 2008 Chrysler Town and Country mini-van - a nice ride to say the least. Problem is where in the heck do you fit the radio as almost every available space has been eaten up with providing you enough cup holders so that each of you in the front of the van can have a choice of 3 beverages to drink? You can't find a place to mount a radio, but at least you aren't thirsty!

Recently I had a conversation with Dan K9BTW who was having the same issue with his GMC Envoy, great ride, no radio room! While at Super Fest this year Dan ran across the Lido Seat Bolt mount. This is basically a mounting system for a remote head type radio. The head of the radio mounts on what basically is a "Goose Neck" with a mounting bracket for the remote head. Lido supplies a bracket that is supposed to be compatible with most Yaesu and Kenwood remote head radios. If you have an Icom you will need to drill a couple of holes. The mount itself mounts under the seat rail bolt or on a bracket they send that you decide where to mount. The seat bolt was very easy to use and provides a secure location.

Dan mounted his 706 head on the mount. Having seen it I was very impressed with how the radio was right there where you want it yet was able to be moved around so others in the car could view or operate the radio. It also kept the head clear of the all important drink holders in the car, or so says the XYL! Dan placed the radio in the back of the car and has the head up front where he can use the radio with great ease.

Fig 1. Icom 706 in the K9BTW mobile shack!

Fig 2. The head mount in detail.

When my Town and Country arrived I found that I was also faced with the dilemma of where the heck to mount a radio. First I tried the HT and small amplifier. This worked ok, but with only 30 watts, I had nowhere near the range of the 50 watt radio I was so used to. So I decided it was time to invest in this mount as well to mount the Icom 2720 I have for my company car. Unfortunately I never really invested in a mounting plate for the radio so I was forced into making my own. A small piece of aluminum and some longer M3 screws did the trick nicely. I also found that if you want the remote head cable can be nicely hidden inside the protective sheath that is supplied around the goose neck; a nice touch to neatening up the wires. It was just a matter of placing the radio out of the way on the floor behind the driver seat and all was well. With my radio so close I didn't have to go to the extent of remote mounting a speaker like Dan did so the installation was a bit quicker in that regard.

Fig 3. Icom IC-2720 in the K9TMS work vehicle.

The Lido Mount has definitely solved the issue of where to put the radio and more importantly gets the remote head where it can easily be seen and played with. If you have a radio with the ability of remote mounting the head this mount is well worth investigating! Cost is around $30 from AES.

73 de Tom – K9TMS

Car Antenna Solution

Tom Staley, K9TMS

Along with the dilemma of where the heck to mount a radio in my new mini-van also came the issue of where to mount a decent antenna. It also occurred to me that the acquisition of new cars must be each Ham's dream as it means you get to invest in new antennas and possibly even a new radio.

So first we define the issues:

1. The car is owned by the company I work for, so no holes to mount the antenna.
2. It's 2008, which means a fair portion of the car is made of plastic which is not really a suitable mounting surface for most door/hatch mounts.
3. I wind up driving to such scenic places such as UIC or Northwestern and am required to park in a garage with a clearance generally around 6'6".

So there are the issues. Let's move to the solution.

After looking at the available antennas I kind of decided I wanted something a bit less obvious and also wanted to mount it to a motor mount so I could lower it without having to get out and remove the antenna from the mount like I have been for the past few years.

Previously I had the Diamond motorized mount which had recently failed. In looking around the two that are easy to find are the Diamond and Comet motorized mounts. The Comet actually is rated to take a longer antenna and was a few dollars cheaper, which is near and dear to each Ham's way of living! So I ordered up the Comet which I got from R & L Electronics in Ohio.

Next came the antenna. I had been using a very tall antenna for 2 & 440. It has the advantage of really good gain, but the disadvantage of have been knocked off the car several times by low hanging trees. I might also mention it was on a magnetic mount that was comprised of one 5 inch magnet. Being I was most likely going to have to resort to a mag mount again I decided it was time to investigate a bit smaller antenna. At the Six Meter Fest I ran into the DC Ace table and found that they had a new antenna from Jet Stream model JT7505B that seemed to be what I needed. It was a bit shorter than my old monster yet still had decent gain. It also was reasonably priced at around $40.

So with the antenna and mount solved it was time to figure out how to get it on the car. As I mentioned previously there is no place to mount the antenna on a door as these areas are all plastic now, thanks Detroit or maybe Belvidere. It occurred to me that I had purchased a 3 magnet mount from DC Ace for mounting an HF antenna that wasn't being used as the magnets were too strong for the screw driver antenna's reed relay to work properly. So I looked at mounting the motor mount to this magnet mount and found out that this was the best solution.

Fig 1. The antenna and motorized mount mounted to the DC Ace tri-mag mount.

The motor mount comes with a nice switch control that allow you to raise and lower the antenna from inside the car. A real nice feature when you are in a hurry to get into the garage. I was able to mount the Comet Motor Mount directly to the edge of the Tri-Mag mount just using the brackets it came with. From there it was just a matter of sneaking cables in the door and hiding it all.

Fig 2. The finished solution on top of the van.

My initial results seem to be very good as the signal strengths have been on par with my old antenna system. The motor mount does a great job of lowering the antenna in a matter of only a few seconds to allow you under that low ceiling in the garage or to get that Double Quarter with Cheese at McDonalds without rearranging your antenna.

73 de Tom – K9TMS

Upcoming Contests

Tom Staley, K9TMS
Contest Commandant, WeLCARS
President, Stoned Monkey VHF ARC

Ok for those of you that can't get enough of contesting here are some upcoming contests that I will be trying to participate in.

July 19th & 20th is the CQWW VHF contest. This one can be kind of cool in that it is only on 2 & 6. A few years ago Penny and I did this one as a rover in 6 meter conditions that were outstanding. Only using a loop we worked all over the USA. My contest Log does support this as the scoring is a bit different that the ARRL contests.

August 2nd and 3rd is the ARRL UHF contest. Similar in nature to the VHF contest this one uses only UHF bands. 222 and up! This is a hard contest to run as it is not as active as the VHF contests. The contest period on this is a bit shorter. For those that run on too much caffeine in Warp 3 to 5 this is not your contest! Patience is a requirement.

August 16th & 17th AND September 20th and 21st make up the 10 GHz and up Cumulative contest for this year. I have not ever participated in this one as of yet but I think this is my year. Let's see if we can get a group going up and down Lake Michigan on this side of the pond in conjunction with the group on the east side. Patience wise this is worse than the UHF contest. Also realize that contacts here vary in points based on distance.

September 13th and 14th is the September VHF contest. Expect the Monkeys to be out swinging from the towers for this one again. We have a reputation to keep up with now! What would be neat is to get a group of folks that would like to play in a small way in this contest to go out as rovers in support of the club as well as for their own good.

73 de Tom – K9TMS

TechFest III Presentation Schedule

Joe Serocki, N9IFG
President, WeLCARS

Time	Description	Presenter
8AM	Open	
8:30AM	Coffee and State Trooper Certified Doughnuts	KA9VPG
10AM	So you wanna build a rover?	N9IFG
10AM-1PM	VE Testing	N9QDS
11AM	Lunch	KA9VPG
12PM	Use a surplus dish as a microwave antenna	N9IFG
1PM	Drawing of Scout HT	N9IFG N9YH
1:15PM	Rover awards	N9IFG K9TMS
1:30PM	Closing ceremonies	