



THE MONITORTM



ECARS Web Page: <http://www.ecars7255.com>

The official publication of the East Coast Amateur Radio Service, Inc.

Meet Mark

by Brad Farrell K4RT

Any ham radio operator in the eastern U.S. or Canada who has been around for more than a few years, likely instantly recognizes ECARS' "Mark" - its distinctive trademark that hams instantly associate with the ECARS net on 7.255 MHz or with the ECARS web site. That association makes the logo distinctive, thereby giving it value as a trademark or mark, for short.



A trademark is a word, symbol, design, combination of letters or numbers, colors, or other device, which identifies and distinguishes products and services in the marketplace. Once developed through use, an organization is identified with its trademark. Unlike European countries where trademark rights are obtained by being the first to register a mark, in the United States, a trademark is acquired by using it, not by registering it. Generally, the first to use a trademark in commerce or in noncommercial channels obtains common law rights in the trademark. The designation "TM" which stands for "Trade Mark") used in conjunction with a common law trademark provides notice to others that it has trademark value to the owner. ECARS has been using its trademark for many years, developing rights in it from the first day it was used on decals and patches.

Trademark owners in the U.S. register their marks with the Patent and Trademark Office (PTO) in Washington, D. C. to obtain nationwide protection, and to provide constructive notice to third parties of a mark's use and ownership. ECARS submitted an application for registration of its trademark on the PTO's Principal Register, which required that ECARS demonstrate to a PTO trademark examiner that the mark is in use and is distinctive. The application and review process was completed over a two year period.

Federal registration provides the ECARS trademark

(Continued on page 2)

From The Prez

ECARS President, Ernie Parsons, W1RXH

As I look out the ham shack window I find it hard to believe that the leaves are changing color. The edges of the pond will soon be a raging inferno. It seems like we were just getting over the long, cool, and wet spring when summer rolled in, and it didn't last long. I hope we have a warm fall before winter and the snow, sleet, and freezing rain show up. I guess that I would rather have that than the heat and humidity.

Here we are again making plans for the 2007 annual meeting. We have received a satisfactory proposal from the Chateau Resort and Conference Center in Tannersville, PA and have made a suitable monetary commitment to secure the facility. Mick W3ILG has worked with the folks at the Chateau to accomplish this. Many thanks for a job well done Mick. Plan to attend...you will not be disappointed. Remember ECARS is every member's organization and your attendance could be critical when it comes to making decisions on future directions. No one has a right to complain about decisions that are made if you are not in attendance to participate in the decisions.

Since the last issue of the Monitor when we announced

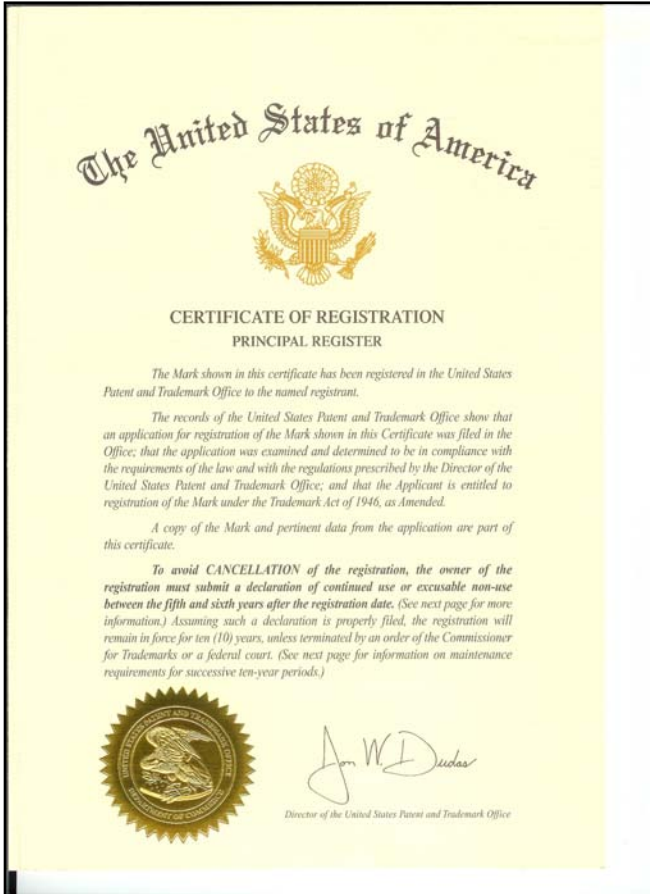
(Continued on page 2)

In This Issue

Meet Mark.....	1
From the Prez.....	1
ECARS Secretary / Treasurer's Report.....	3
A Bit of ECARS History.....	4
Net Manager's Report.....	6
2007 ECARS Annual Meeting.....	6
Arlington County Races Debuts.....	7
Riley Hollingsworth's Personal Suggestions..	8
HF Mobile and Auto Tuners.....	9
Boat Anchor Speaker Grill Cloth Restoration..	11
2-Meter 1/2 Wave J-Pole.....	12

ECARS Service - 7255 KHz - for Public Health, Safety, and Welfare

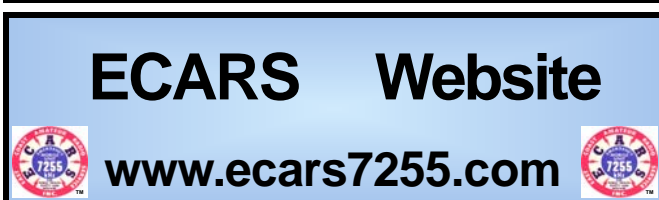
(Meet Mark continued from page 1)



with nationwide priority over other marks that are identical or confusingly similar. The “®”symbol, which, under the federal trademark statute, can be used only with federally registered trademarks, provides constructive notice that the mark is claimed as an exclusive right.

The image below shows close-up how the “®”symbol is used to show that ECARS' logo is a federally registered trademark, while the common law "TM" is used to provide notice that "www.7255.com" serves as a common law trademark as well as a web site address.

Why did ECARS register its trademark after many years of common law use? Because the corporation believed that the trademark was being infringed. Prior to the PTO grant of registration, ECARS successfully terminated the infringing conduct.



(From the Prez continued from page 1)

that the ARRL approved ECARS as an affiliate organization, we have made an application to the Marsh Affinity Group Services Co. to procure liability insurance for each of the members. The Material that I submitted was approved and we received a quote for \$699.00 for the following liability insurance made available to ARRL Affiliate Organizations: general aggregate, \$2,000,000, products/completed operations aggregate, \$1,000,000, each occurrence, \$1,000,000, fire damage limit (any one fire), \$100,000, medical expenses, \$10,000, non-owned auto liability each accident, \$1,000,000, rented auto liability each accident, \$1,000,000.

We all know that we live in a dangerous world and almost anything can happen when you attend a function in a public facility. As an organization, we are a moving target. I have surveyed quite a number of ARRL affiliated clubs and most of them carry liability insurance and most of them choose the ARRL insurance as they have made it available to the affiliated clubs at a very reasonable rate. We were unable to purchase the insurance this year as we had unexpected website requirements along with the 2007 annual meeting retainer and the purchase of brochures. I hope in the coming year that insurance can be acquired, as it offers protection to all the members when attending ham-related functions, such as annual meetings, hamfests, etc. One of the primary responsibilities of ECARS President is the well being and protection of the membership, and I value the participation of each ECARS member.

The capital equipment fund that was requested by our secretary/treasurer Charlie N2CJ for the purpose of funding any unexpected situation he might encounter has been established and put in place.

The new brochures have been well received for the most part. I am putting them in the hands of some folks who attend various hamfests and other amateur radio-related functions. With 40-meter band conditions in such poor shape, activity is not up to par but we continue to receive new members and some of them as a result of the new brochures.

Considering how bad the band conditions have been, our net manager, WY3T Joe continues to keep the net running in tiptop shape, even during his absence due to a medical problem. Joe asked Bob W3EOP to act as the interim net manager and what a super job he did. Kudos to Bob. And speaking of kudos, the same goes to Mick W3ILG our vice president who filled in for me during my recent stay in the hospital while I received a new left hip. Both Mick and Joe exemplify the best in the organization as their contribution is always without question and with a maximum effort.

Election time is upon us. This is a very important responsibility that each ECARS member should take very seriously. We all need to take part in the election. Each ECARS member is a part owner of ECARS. Contact people have been set in place and are ready to take your nomi-


(Continued on page 3)

(From the Prez continued from page 2)

nations for ECARS President, Vice President Secretary/Treasurer, and Director. The call is yours. If I remember correctly, last year about 100 people voted out of a membership of approximately 700 members. That, in my opinion, is not a good showing; it tells me that the majority of members didn't get involved in the election process. This organization doesn't belong to two or three officers and the directors; it belongs to all of the members. If you do not take part in the voting process you have nothing to complain about when decisions are made that you don't like.

We have had a very successful year so far, but there is more to be done. Everyone needs to take part in various ECARS activities. For example, we have the opportunity to pen an article in QST Magazine, but we need material for the article. I have been collecting past Monitors and other old ECARS artifacts, but much more is needed. I have some material from back in 1968 and from 2000 to date but there is much missing between 1968 and 2000. I ask that everyone rummage through their stuff and see if you might have some old pictures or other written material that would be helpful in the production of this article. It is my feeling that an article in a formidable magazine like QST could give us a real boost in our membership. Last week I had a fellow from Cape Cod, WIJAW check in on my watch. He has been a member since 1968 and his membership number is 1038. He informed me that he had some old Monitors that I would be welcomed to. He just moved to Cape Cod, so he said I would have to wait until he got his ham stuff unpacked. "Go Jack", I am waiting patiently. Help me out guy, and see if you have some stuff packed away.

Thanks Joe for your net manager's report. What a great job you do. You are hard to keep up with. Thanks to everyone who contributes to ECARS in any way, weather big or small, it all adds up to a smooth running organization.

So to sum it all up: Make plans to be at the 2007 annual meeting in Tannersville, PA. Initiate the procurement of liability insurance for all ECARS members. Participate in the oncoming nominations and elections. Please send me old ECARS material for the QST article. Do something nice and call one of the officers/directors and tell them how much you appreciate the job they do. It's the only reward they get. And thanks to all who help to make ECARS a successful organization. 



Cash Flow
1-1-2006 through 8-31-2006

INFLOWS..

DONATION.....	126.50
Dues - New	887.50
Dues - Renewal	1,848.00
Dues PayPal.....	262.48
ECARS Jacket.....	99.97
TOTAL INFLOWS.....	3,224.45

OUTFLOWS

Corporation Fees.....	25.00
JACKETS.....	45.32
Office Supplies	1,422.38
Post Office Box Rental.....	40.00
Postage.....	469.00
Postage and Delivery	8.10
Printing and Reproduction.....	1,090.00
Reimbursement – Misc.....	207.90
Software.....	200.00
Supplies, Bus.....	50.01
Web Site Hosting	99.00
TOTAL OUTFLOWS.....	3,656.71

OVERALL TOTAL.....-432.26

NOTE: Office supplies expenditure above includes cost of new membership decals (\$870) and various ECARS president's expenses.
Printing and reproduction includes cost of new ECARS brochures.

Account Balances Report
8-31-2006

ASSETS

Cash and Bank Accounts	
TOTAL Cash and Bank Accounts	2,116.42
Investments	
CD.....	5,910.92
TOTAL Investments.....	5,910.92
TOTAL ASSETS.....	8,027.34
LIABILITIES.....	0.00
OVERALL TOTAL.....	8,027.34

ECARS Nominating Committee

ECARS elections are just around the corner and it's time to submit nominations for officers. After securing permission from anyone interested in running for a position, please submit their name to any member of the nominating committee by email. The elected officers are: president, vice president, secretary/treasurer and director.

The ECARS Nominating Committee

- Chairman, Joseph S. Reppert, WY3T, jsbrat@early.com
- Bob Benson, K2IB, robert849@earthlink.net
- Bob Irwin, N3ZUA, n3zua@comcast.net

(A Bit of History continued from page 4)

My 5' 3" View (1978)

In our efforts to improve, both ourselves and our service, the following thoughts come to mind:

1. Let us not mistake SPEED for EFFICIENCY, Check-ins not accustomed to rapid net operation tend to get confused, therefore, patience on the part of the Net Control is needed.

2. Very often Net Control is too abrupt and/or formal. It may be far better to express a more friendly concern for newcomers.

3. Our Net Control should not:

(a) Use excessive or arrogant control,

(b) Talk too much themselves! Listen a bit longer and give the other station a fighting chance -- he may not be as "quick on the trigger" as you are, and

(c) We all realize that double and triple breaks are taboo, and reserved for emergencies, but newcomers will often use a single break and should not be unduly criticized.

4. Under trying conditions (heavy QRM, etc.) do make full use of stations in other areas for assistance and relay. And when you have acknowledged a relay DO NOT INTERRUPT HIM - let him handle the traffic to its conclusion. This will also eliminate doubling.

5. Make that list when taking check-ins -- this is important -- particularly when the net is busy. This procedure, as outlined in the operations manual, will also eliminate doubling.

6. ECARS is the friendliest, most informal net on the air. Let's keep it that way! If you feel that constructive criticism of a net control is required please write him a note, or offer any helpful suggestions in your most diplomatic manner. We need new members and new net controls so we don't want to frighten them away with any unnecessary unpleasantness.

It really is easier to TALK LESS; LISTEN MORE; BE FRIENDLIER AND MORE PATIENT. Try it, you'll like it...and you will present a better example to new members.

Last, but not least. Make it a point to remind stations moving off to be courteous -- Check that frequency before using it! This is one of the most frequent and damaging complaints we hear about our net operation.

Ann, KA2ACF

Ann was ECARS' very capable secretary treasurer from 1979 until 1990 and again from 1996 until the end of 1999 when she became a silent key. (NIVE editor)

Also in the 10th Anniversary issue of the Monitor was a brief history of the background of ECARS as related by Cy, K3FEC.

December 28, 1968 - first day of operation. Earliest known check-ins include K1LTO, WA1KRN, WA3GAL, W3RAZ, W3RSC (later W4MLF).

February 1969 - first issue of the *ECARS Monitor*, list-

ing Bernie Howe, K1LTO as net manager, Jim Lightfoot, WA1KRN as secretary and editor, and Dave Flynn, W2CFP, as public relations.

November. 1969 - Bernie, K1LTO, one of the founders, became a Silent Key.

July 1970 - Dave, W2CFP, became editor of the *Monitor*.

Sept. 1970 - ECARS meeting was held in Boston (at the ARRL Convention), at which a committee, headed by W1TWG, with WA1IEB, K1HHN, WA2GQW, W2MSS, K3FEC, K4BX, and WB4JAW, was appointed to look into incorporation and other matters.

August through December 1971 - on-the-air meetings were held under the sponsorship of K3FEC and K3UIY, to reorganize, draft a constitution, etc. By an election held on the air, K3FEC was chosen interim president, and WA1KRN interim vice president, to hold office until an election, as directed by the constitution.

October 1971 - At a meeting held at the Gaithersburg Hamfest, the present constitution and by-laws were adopted unanimously.

January 1972 - After the first formal election, the following officers were inaugurated: president, W2DIR; vice president, W1TWG; secretary/treasurer, W2CFP; directors, K1HHN and K3UIY.

March 1972 - Jim, WA1KRN/W5TMB, co-founder of ECARS passed away

January 1974 - present system of membership numbering was instituted

February 1974 - W3GQM assumed editorship of the *Monitor*.

February 1976 - K2PVX became editor.

Cy K3FEC became a silent key in 2001. (NIVE editor)

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ECARS Patch

This beautifully embroidered ECARS patch will look great on your hat, jacket, or sewn to your favorite article of clothing.

The cost for the patch is \$5.00.

Send your payment to: ECARS, PO Box 5923, Hudson, FL 34674.



ECARS Net Manager's Report



Joseph S. Reppert, WY3T

Once again it is time to give a brief account of ECARS net activities. I cannot emphasize enough the value of our net control stations. This is a dedicated group of guys, who on a daily basis, do their very best to put ECARS on the air. This is not always an easy task. They have had band conditions that are totally unpredictable along with other obstacles with which to deal. Thanks to all who participate, ECARS is on the air each day from 7:30 AM until 3:00 PM.

The ECARS Net Control Stations have personalities that vary, but all have the good of amateur radio and ECARS foremost in their agenda. You might have one NCS mention his cat or another discussing a night out at a local restaurant. This dialogue happens on a daily basis, but let an emergency develop or hear that someone is in need of help and all the small talk and chatter will come to a screeching halt. At that point the NCS will show you the side of ECARS that we are all committed to. The net can be put into an emergency state when warranted and everything possible will be done to resolve the situation. This will be done in an orderly fashion by the NCS on duty. In this day of cell phones and other modern forms of communication, some say, "Why bother, Amateur Radio is outdated". One thing to remember is that we are individuals who have the capability to talk to the world and need not rely on Ma-Bell or on that satellite up their spinning around the planet. As amateur radio operators, we rely only on each other.

At times there is a bit of good-natured rivalry and competition among our ranks. It's sort of like two brothers who are scrapping. It's all right for them to disagree or accost one another but heaven help the outsider who does. We are a fraternity whose goals are for the good of all.

The net operations are running along the way they should. The individuals who are involved in an official capacity are of the highest integrity and of exemplary moral character. They are the driving forces behind the ECARS Net and have a common goal of making ECARS the premier net on forty meters.

I am looking forward to attending the Annual ECARS Meeting for 2007 and meeting some of you for the first time as well as seeing some old faces. It is always a pleasure to share good food and good times with good friends.

2007 ECARS Annual Meeting

by Mick McBride, W3ILG, ECARS Vice President

QST, QST to all ECARS members it's time to begin planning for the upcoming 2007 ECARS Annual Meeting. The meeting committee has been working since the close of the 2006 meeting to make the 2007 meeting better publicized so more members will be able to make plans to join us for this great event. Once again the 2007 meeting will convene at The Chalet Resort and Conference Center in Tannersville, PA. Now is the time to mark your 2007 calendar for the dates of April 27 and 28, 2007. It's important to also mark your calendar for March 26, 2007, which is the last date to make your reservations for the 2007 meeting. Any reservations made after this date will be provided on a space-available / rate-available basis, so don't miss out by forgetting to mark your calendar. While most of us tend to think this time of the year is a slow period for the hotel industry and rooms would be no problem, I'd like to remind you that this is the time of the year that colleges begin to have graduation parties and other functions, so I'd highly recommend making your reservations early in order to avoid any chances of missing out. Once again ECARS has been given a very attractive room rate of \$92.00 + appropriate taxes for a single or double occupancy or \$102.00 + taxes for a triple or quad. This is the same rate we were given last year and it's nice to see that not everything has increased in price since last year. This room rate is good for Thursday, Friday, and Saturday nights for those who might want to take advantage of a bit longer leisure weekend or until your spouse runs out of money at the nearby outlet mall.

The exciting news for 2007 regarding the Chalet is the fact that they have undergone a 3.5 million dollar renovation of the hotel to include the following: Complete renovation of the guest rooms including wallpaper, carpet, new beds and pillows, and remodeling of the bathrooms. They also did a complete renovation of the hotel function areas, lobby and guest hallways plus the restaurant and lounge areas.

The hotel has promised to make every effort to house all ECARS attendees in one general area of the hotel such as at the end of a hall where we would possibly avoid any excessive noise from other guests. The hotel also has honored our request for not housing our members in the loft rooms unless specified by the individual guest and for an additional charge.

As we move ahead toward next years' meeting, any important details or information will be updated as deemed necessary via the net control stations. The information will also be on the ECARS website www.ecars7255.net for your reference, as well as in the December Monitor.

ECARS is a great group of hams and it would be wonderful to see more members attend our annual meeting in 2007. There are plenty of interesting things to do and see, in addition to our meeting, so bring your spouse and enjoy a few relaxing days in this beautiful location.

73 and hope to see you there.

Arlington County RACES Débuts at the County Fair

by Dave Jordan, WA3GIN

Not quite a year ago the Arlington County Government put out a call in the National Capital Region for a few good hams to support an amateur radio volunteer group that was to become the core of Arlington's Auxiliary Communications Service (ACS). The county already had several employees who were licensed hams and active in the local radio club. The director of emergency management for the county asked if the club would like to sponsor a formal ACS following the guidelines provided by the Federal Emergency Management Agency (FEMA). Since the club was already active in public service, the response to the request was a no-brainer. Within days the county's office of information put out a press release announcing that the county was looking for volunteers. Two TV stations (NBC/FOX) and NBC radio (WRC) jumped on the story line. Camera crews were dispatched and the word was out on the evening and late night news.



The recruiting netted 30 prospects. After character background checks, mandatory training, and testing, 25 active Radio Amateur Civil Emergency Service members remain with new volunteers joining every month or so. This group of volunteers reports to the County's Emergency Communications Chief (WA3GIN-Dave) also referred to as Arlington County's RACES Radio Officer. Dave has been with the county for over five years as its Chief Information Security and Privacy Officer, but after 9/11 he was also asked to assist the Office of Emergency Management with incident response and emergency technology. Since that time a lot of technology has been brought into the county's three command vehicles and Emergency Operations Center.

The RACES team is trained to support the OEM Emergency Technology Support Vehicle (ESTU). The vehicle is designed to contain three separate modules.

The forward compartment is configured to be a watch desk with flat panel screens tuned to the Arlington County traffic cameras, Direct TV Satellite, local TV, and video conferencing. In addition, multiple laptop PCs are connected to the county's institutional network (Inet) and they can also be switched over to the Internet. The vehicle has an XM radio in part because the County's text alerts are re-broadcast via XM satellite. The other IP capabilities of the vehicle include voice, data, and video support. Enough to support a medium sized incident command village.

The center portion of the vehicle is where all the ad-



vanced technology resides. When deployed the vehicle has wireless perimeter cameras as well as a pan-tilt-zoom camera at the top of the 61 foot hydraulic mast that rises up out of the front roof of the bus. This mast also carries 5.8 GHz antennas to link into the County's microwave network. Other equipment such as IP gear for Voice-Over IP (VOIP), video streaming, DirectWAVE satellite data, servers, mass storage, etc. are located in this area.

The rear of the vehicle is dedicated to Amateur Radio. The cabin contains a Kenwood TS-480(HX), TM-D700 VHF/UHF transceiver, and a TKS-820 440 repeater with duplexer. There is a second 30 foot hydraulic mast that supports a Mosley TS-33 and SGC-230 auto-tuner for long wire or dipole antennas. Diamond base station antennas can also be mounted on either mast for UHF/VHF/6m and VHF/UHF repeaters.



An I/O panel on the outside of the vehicle provides easy connectivity to the IP and RF gear inside.

It's a great vehicle that was once the "old" police mobile command center but with a new paint job and a lot of new gear, this vehicle becomes the core technology center for an incident command village or a relay post for the fire and or police command vehicles.

(Continued on page 8)


(Arlington County RACES continued from page 7)

The RACES team took the vehicle out on Field Day as a exercise, installing all the equipment during one of the hottest Saturdays in June and then breaking down the equipment the next day during a steady downpour. What FUN! The next exercise was another set-up and tear-down at the County Fair operating continuously for 12 hours.

The vehicle has a "new" 20 KW generator that is whisper quiet. Therefore the team can operate a GET-ON-THE-AIR (GOTA) station outside without having to listen to generator noise. It comes in handy when operating all night because the neighbors can't hear it, either!



The bottom line is that volunteering for an auxiliary communications service can be a lot of fun.

For additional information about RACES and more pics of the ETSU go to www.w4ava.org. 

Editor's Note

As you can see this issue of the ECARS Monitor is larger than usual and filled with many interesting articles. I'd like to thank several members for their efforts in sending us information for this publication. Many thanks go to, Brad Farrell K4RT, Bill Gerhold K2WH, Dave Jordan WA3GIN, Mick McBride W3ILG, Ernie Parsons W1RXH, Joe Reppert WY3T, and Charlie Stampf N2CJ. I'd also like to thank Peggy Burns K1VE my faithful proofreader who went through this publication word by word, making the necessary grammar and spelling changes.

ECARS now has approximately 700 members and it would be great to be able to publish articles from many of you. Please consider sending us articles with photos of your shacks, latest ham projects, travel stories that involved amateur radio in any way. Send photos in jpeg format, and articles in Word or txt. format to Mike Stone, N1VE (n1ve@amsat.org). *Editor*

Riley Hollingsworth's Ten Personal Suggestions for Amateur Radio Operators

<http://www.arrl.org/arrlletter/00/0901/rileys10.html>

1. Be proud of what you have and let your feelings be known. Let the public know what you are, what Amateur Radio is, and why it's valuable. Let your feelings be known to Congress, to the FCC, to the media, to your states, and to emergency agencies. Sprint does. AT&T does. Motorola does.
2. Operate as if the whole world is listening. It is!
3. Take nothing for granted. Bill Gates can't, and you can't either.
4. You're at a crossroads now. An old Chinese philosopher (or my grandmother--I can never remember which.) said, "Be careful what you wish for. You may get it." Seize the moment, and make this your finest hour. Ham radio has been at a crossroads before and has thrived. Continue that tradition.
5. Make sure that, on your watch, Amateur Radio never becomes obsolete.
6. Teach the new licensees all you know. We've needed numbers for a long time.. Respect this wonderful legacy known as Amateur Radio that our mentors and Elmers gave us. Every time you key the mike or hit the key, think about what a legacy you were given and your duty to pass it on.
7. Enjoy ham radio. Celebrate it. But realize it comes with responsibility. Every gift of lasting value always does.
8. Stay away from arrogant, negative operators who know all the answers. They just haven't thought of all the questions. Encourage them to take their anger and hate to the Internet. Every minute they are on the Internet is a minute they aren't on Amateur Radio.
9. Never allow Amateur Radio to become the audio version of The Jerry Springer Show.
10. You may not always agree with the League, and that's fine. But I'm standing here before you tonight talking about enforcement because they never gave up. Take care of the one voice you have. You must never doubt that a small group of dedicated people can change the world. They just did.

HF Mobile and Auto Tuners

by Bill Gerhold, K2WH, # 20407

I have been an avid mobile HF'er for a few years operating all bands from 75 meters to 10 meters. Working DX and checking into ECARS on a regular basis usually without any problems except when the propagation gods are not smiling upon us.

My prior mobile installation consisted of a Jeep Cherokee Scout. The antenna mounting was a ball mount on the rear passenger side fender using various Ham Stick antennas. My rig of choice is the famous ICOM 706 MKIIG. The rig was located under the rear seat with wiring for the control head, power, tuner, and antenna routed as needed under carpets and moldings. The only thing visible in the whole installation was the control head.

The key element for the entire system was the ICOM AH-4 tuner, which is intended for a random length wire. The LDG tuner on the other hand, is intended for an antenna fed with coax.

Why did I use a tuner? Although the Ham Sticks are sold and marketed for various bands, I could not get any of them to resonate. This is probably due to the installation location. Put a Ham Stick out in your yard, run some ground radials and they will probably work as designed but all bets are off in a mobile installation and I certainly did not want one of those huge "Tuner on a Stick" [screwdriver] antennas. I wanted slim and stealth.

So, enter the AH-4. Now I need to find a place to mount it. Two criteria had to be met. (1) I needed to mount this tuner in a location that was out of the way, and (2), most importantly, this tuner had to be located as close as possible to the feed point of the antenna. Why? As stated, the AH-4 tuner is intended for a random length wire so it only has a high voltage insulator output connector not a coax connector. So, any long connecting wire in the car to the ball mount would have introduced lots of RF in the car, and not into the antenna.

With luck, I was able to hide the AH-4 behind a rear plastic panel (see picture). It just fit in there and this was an

ideal location since it allowed me to connect to the ball mount with only 1" of connecting wire. This setup worked very well, best contact - Australia! Most worked, ECARS.

This was all well and good. I had lots of fun for a few years in that Jeep. The rig and AH-4 tuner combination never failed and worked wonderfully. The bulk of ECARS contacts on 40 were with a 17 meter Ham Stick! The AH-4 did a wonderful job. However, all good things must come to an end and with 150,000 miles on the old Jeep, a new Jeep had to come along and here it is. The Jeep Grand Cherokee, 2006 model. I actually groaned, realizing that I now needed to do another HF installation in this Jeep.



However, punching a 2" hole in the fender of a brand new \$ 32,000 car for a ball mount seemed too sadistic and I decided to go with a hatchback mount. The hatchback mount is coax fed hence the need for a tuner with coax output. Enter the LDG AT-7000 and exit the ICOM AH-4; get back in the box.

The installation of the 706 and LDG tuner was much easier in the new Jeep than the old Jeep. Since the new Jeep did not have lift-up seats where I could stow the rig, I needed to find a new place. I found this place between the (2) front bucket seats mounted vertically on the rear section of the center console. This place was perfect since it was



(Continued on page 10)

(HF Mobile continued from page 9)

out of the way (even for people sitting in the rear seats), plus the rig is kept cool by the AC vents! The AT-7000 tuner, as you can see in the picture is lying on the floor temporarily for testing.

Mounting the 706 control head also led to a no holes mounting method. Instead of drilling holes in the dash as in my old Jeep, I opted for the now fairly common window suction cup device with a flexible arm. I had to modify it somewhat to accept the ICOM control head. This mod required a homemade aluminum plate drilled to mount on the suction cup head and also drilled to accept the ICOM control head bracket screws.



The new lift gate mount is strong and does not damage the car. It is the Diamond K-400-3/8C mount. It uses set-screws behind the lip and makes for a nice secure fit. It comes equipped with 6 feet of very thin, Teflon center core coax. This is to help solve the problem of getting the coax into the car, past the rubber gaskets without causing leaks. The end of the coax is a female mini-UHF connector. This particular mount comes with a 10 feet of secondary roll of RG-58 and the mating mini-UHF male connector to run to your radio. So, the mounting kit includes everything you need to install the mount and connect to the radio.



Connecting the LDG was a breeze. It comes with two short cables, one is a short length of coax and the other is a control line. No separate power line is required for the LDG. All power is derived through the control cable from the rig. I connected these two cables and hit the tune button on the rig. Nothing happened? Hit it a few more times and then it did its thing. You can hear the relays rapidly switching, looking for a match. During this first attempt, I had a 6-meter Ham Stick installed. After the LDG went through its tuning range looking for a match, the background or atmospheric noise on the rig lessened when it found a match. I thought this kind of odd. I was puzzled by the atmospheric noise getting lower with a better SWR. I would have expected the atmospheric noise to increase, which was typical with every tuning attempt made with the AH-4 tuner.

A quick check of the SWR revealed a 3.5:1 with the 6 meter Ham Stick. Not good but without the LDG in line, the SWR was off the scale - but it received better! Doing some experiments with other bands and other Ham Sticks, I came to the conclusion; the LDG unit has some issues.

On 15 meters it constantly oscillated through its entire range without finding a match. On 20 meters, signal strength was down about 20 db after tuning to an SWR of 1:1. Go figure that one out.

Without the tuner, the same antenna, with a much higher SWR, receives much better??? It's almost as though after tuning, the LDG throws in a 20 db attenuator for good measure on some bands. On 17 meters, it cannot find a match at all even with a 17 meter Ham Stick. I can't understand this at all.

I tried different antennas, different modes, and have decided I am not impressed with the LDG unit and will probably go back to the AH-4. However, all is not lost. As a final test, I removed all the Ham Stick antennas and attached my 108" whip. It seems that the LDG unit likes this much better and I did make some contacts into Europe and elsewhere. More experimentation will be needed before I re-box the LDG, and put the AH-4 back in service. Putting the AH-4 back in service will require me to make that nasty hole in the fender. So as you can see, I really want the LDG to work.

In closing, at this time in my life, I have successfully performed two complete HF mobile installations and they are not simple. Component placement is a problem; ignition noise, computer noise, and other noises will plague your installation eventually. Getting rid of or attenuating the noise is another story in itself and a black art.

For more information about the LDG AT-7000 go to: www.lidgelectronics.com/

For user reviews of the LDG AT-7000 go to: www.eham.net/reviews/detail/5922

For more information about the ICOM AH-4 go to: www.icomamerica.com/products/amateur/ah4/

(Continued on page 11)

(HF Mobile continued from page 10)

For user reviews of the ICOM AH-4 go to: www.eham.net/reviews/detail/1071

Between Bill's submission of his HF mobile article and publishing of the Monitor, Bill sent us the following:

"I installed the free upgrade chip from LDG and the tuner seems to function somewhat better, with excellent matches on 40 meters and 20 meters. So I highly recommend that anyone currently owning or thinking of owning the AT-7000 should get the upgrade chip. In addition, I also moved the LDG to the back of the vehicle which is about seven feet closer to the antenna and this seems to have helped through the elimination of approximately seven feet of additional coax.



The AT-7000 at the back of the vehicle.

In the end your mileage will vary and each mobile installation will come with its own unique problems with unique solutions".



lund gray grill cloth looking like new. As with any cleaner always perform a test on the material to be sure there is no adverse reaction. In the case of the grill cloth, there were ample portions of cloth wrapped around a cardboard stiffener that provided an out of sight and safe portion of material to test. The finished product is a work of art. Vintage radio at its best!



Anyone else out there restoring vintage radio gear? Have you discovered a new way to restore these radios? Share your knowledge with the rest of us that read the ECARS "Monitor".

Boat Anchor Speaker Grill Cloth Restoration

by Dave Jordan, WA3GIN

Every once and a while a relatively new product has come to the aid of those of us involved with amateur radio who enjoy restoring vintage radios. Last month I discovered that the popular rug cleaning product called "Resolve", which I've used for several years to remove spots and stains from the carpet did a wonderful job on the speaker grill of +30 year old HQ-170A matching speaker.

The previous owner was a heavy smoker and the speaker grill was a brown rather than gray. I removed the grill from the speaker cabinet, sprayed the front of the grill cloth, waited about 30 seconds, then pressed the grill cloth into a cotton towel. The towel soaked up the excess Resolve along with the tobacco residue leaving the Hammar-

Swap and Shop

Join us on 7.255 every Wednesday from 11:00 AM to 12:00 noon for the Swap and Shop, hosted by Kelly N3FQG

2 Meter 1/2 Wave J-Pole VHF-FM Antenna

from 450-ohm Ladder line

by Dave Jordan, WA3GIN

This is a good rainy day antenna project for those of you who would like to home brew a nifty low profile 2-meter antenna. It's also good to keep in the vehicle along with your go-kit, in the event that you are a volunteer EM-COM operator.

The antenna costs almost nothing to construct and should handle up to 50 watts of FM power. The antenna is also broad-banded and should provide a low SWR across the entire 2-meter band.

The materials you'll need are: 59 inches of 450-Ohm ladder line, several wire-wrap ties, one ring terminal connector, one PL-259 connector and coax (RG-8X or RG-59) length determined by your specific needs (I used 100 feet of RG-59), small tube of clear silicone.

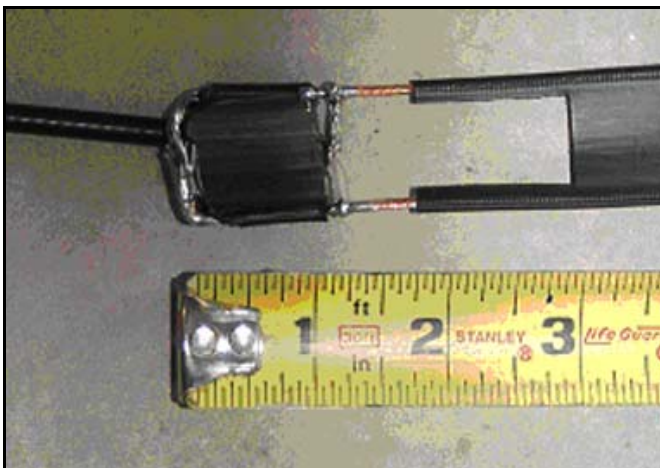
I used the 450-ohm ladder line that was stranded. Some articles call for solid conductor, but I find the solid conductor doesn't hold up over time and use.

Some folks employ an RF choke about a quarter-wave below the feed point. The antenna system is balance fed with unbalanced coax so there could be stray RF on the line, which might make its way down to your radio. If you are concerned about RF in the radio room then use the RF choke. If you are really concerned use two chokes, one at the feed-point and one just before the coax enters the radio room.

To make the RF choke just wind four turns of coax and tape the windings so they are in line. No need cut the coax to insert the choke, just take the feed-line and wrap the turns and tape.

building the antenna

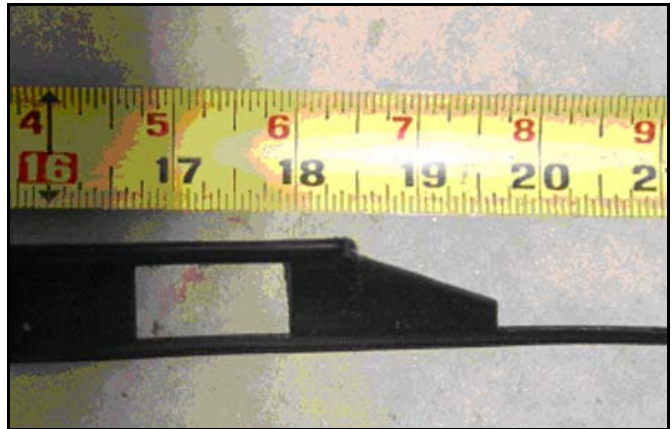
Step one: Strip 3/4 inch of insulation from both wires at one end of the 450 ohm line and fold the copper wires toward each other, wrap and solder together.



Step one

Step two: Measure 1 1/4 inch up from the shorted end of the 450 ohm line and strip back the insulation, on both wires 1/2 inch above and below the mark 1 1/4 inch from the shorted end. You'll use this area to connect the coax feed-line and you may have to move the feed-point up or down to achieve a good 1.5:1 impedance match to the coax.

Step three: Measuring from the shorted-end, go up 18 1/2 inch (this is the lower folded 1/2 wave matching section of the antenna. At the point 18 1/2 inches from the shorted-end cut one of the 450 ohm balance wire lines and remove it completely along with the ribbon insulator spaces so you are left with a single wire about 39 1/2 inches long. This is the half-wave element that is the radiator.



Step three

Step four: Solder a ring terminal connector onto the end of the radiator wire element. Remember that this metal terminal becomes part of the antenna so slide the wire element into the terminal clasp so that the end of the terminal is flush with the wire. Crimp and solder the terminal. Remove the excess wire scrap. It is through this terminal that you can insert a piece of weed-whacker line to put the antenna up into a tree or you can use "Ham Rope" or any other suitable non-conductor. We've got some tall trees in



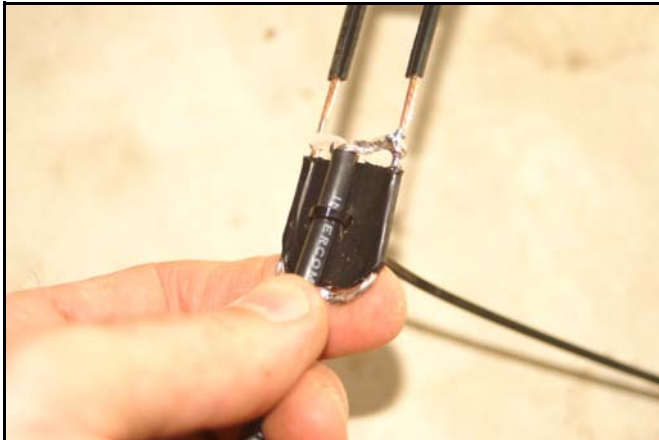
Step four

(Continued on page 13)

(J-pole continued from page 12)

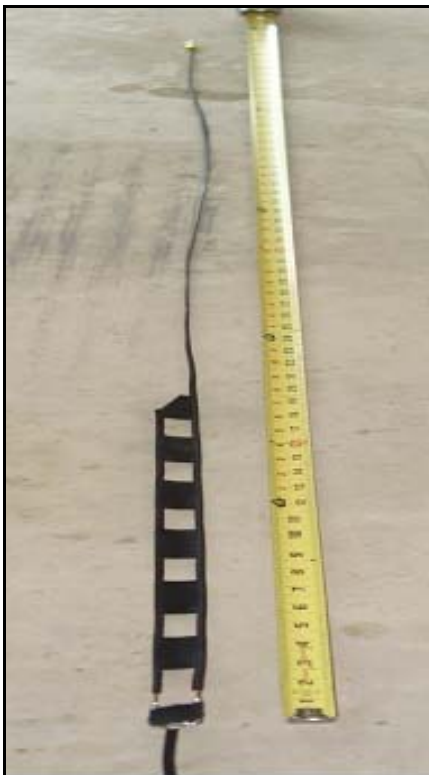
King George, VA so I was able to pull the J-pole I made up 90 feet. I used a tie-wrap through the terminal connector so I could use larger rope.

Step five: Install the coax feed-line, adjust for lowest SWR reading, solder, seal the coax with silicon and use a tie-wrap to secure the coax to the 450 ohm matching section.

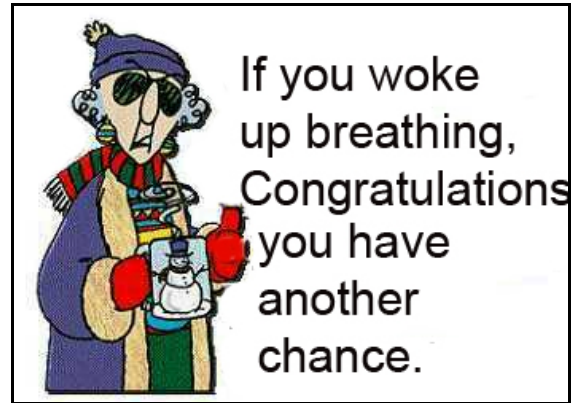


Step five

Note: If you want a bit more gain you can make the radiator 49 1/4" and you'll have a 5/8th wave antenna. The antenna should look something like the picture below. 🖐



The finished antenna. WA3GIN photos



Reward Offered

A reward of 500 microfarads is offered for information leading to the arrest of the desperate criminal Hop-A-Long Capacity. This unrectified criminal escaped from a primary cell where he had been clamped in ions, awaiting the gauss chamber. He is charged with the induction of an 18 turn coil named Millihenry, who was found choked and robbed of valuable joules. He is armed with a carbon rod and is a potential killer. Capacity is also charged with driving a dc motor over a Wheatstone bridge and refusing to let the band pass. If encountered, he may offer resistance. The electromotive force spent the night searching for him in a magnetic field, where he went to ground. They had no success and believe he returned ohm via a short circuit.

He was last seen riding a megacycle with his friend Eddy Current, who was playing a harmonic.



Official ECARS Jacket

If you would like to purchase an ECARS jacket / windbreaker, they are available from one of the nation's premier public safety supply companies, Galls, Inc. To purchase an official ECARS jacket, fill out the order form below and send it along with the required payment to ECARS, PO Box 5923, Hudson, FL 34674. Pricing varies depending on jacket size and logo options selected.

Official ECARS embroidered patch is on the front and back of the jacket.

Note: The deadline for ordering jackets this year is October 31. Now is a great time to order ECARS jackets for the holidays. Effective 2007, jacket orders will be taken by ECARS twice a year, in January and July. The deadlines for submitting orders to ECARS will be January 31 and July 31.



ECARS custom ceramic 10 ounce coffee mug

ECARS Jacket Order Form

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Jackets will be dropped shipped by the manufacturer directly to you. Any overpayments in shipping will be applied to the set-up fee. Order issues should be addressed directly with the Galls, Inc.

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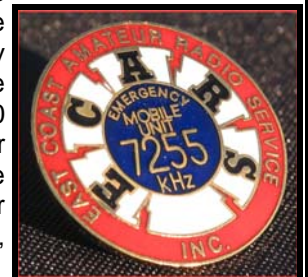
ECARS members can order custom ceramic coffee mugs for \$19.50 including the cost of priority mail. In addition to the ECARS logo you can include your call sign and ECARS number below the logo on both sides of the mug. Or below the ECARS logo on one side you can specify your call sign and on the other side below the ECARS logo you can specify your ECARS number. Choose the orientation of the mug (left or right hand) depending on which logo combination you would like facing you.

You can order the mugs by:

- email; rick@thesignman.com
- using the secure shopping cart; <https://cahaba.net/~thesignm/secure/> (beside "Color Items" click on "Select", then click on "Color Coffee Mug", then type the specifics in the "Enter Details Below" text block)
- by phone; 225-757-1545
- by fax; 225-208-1545
- or by mail; The SignMan of Baton Rouge, 879 Castle Kirk Drive, Baton Rouge, LA 70808-6020

ECARS Pins

ECARS pins are available from club secretary/treasurer Charlie Stampf, N2CJ. These are beautiful one-inch diameter gold pins with the red, white, and blue ECARS insignia in a very durable glossy finish. The price for one pin is \$3.50 plus \$.60 postage. To order a pin, send your check made out to ECARS for \$4.10 per pin to ECARS, PO Box 5923, Hudson, FL 34674-5923



The East Coast Amateur Radio Service, Inc. (E.C.A.R.S.)

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May ECARS publish your email address? Yes No

ECARS Dues: 1 year \$10.00, 2 years \$20.00, 3 years \$30.00

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I, the undersigned, hereby request a new a continued membership in the East Coast Amateur Radio Service, Inc.

I agree to abide by ECARS Bylaws, a copy which is available on the ECARS website, www.ecars7255.com.

I understand that my application for ECARS membership is subject to approval by the ECARS Board of Directors, in its sole discretion.

Signature _____ Date _____

Instructions: Complete this form and mail it with a check or money order in United States funds to: **E.C.A.R.S., PO Box 5923, Hudson, FL 34674-5923.**

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Items for the Monitor should be sent to the editor in Microsoft Word or text format, if possible. The deadline for submissions is the 15th of the month preceding the month of publication, subject to change by the Editor. Publication is in Feb., June, Oct., and Dec. The Editor reserves the right to reject, edit, or modify submitted material as necessary.

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