

RADIOWAVES



MARCI Newsletter

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FROM THE PRESIDENT OF MARCI

Though I have not received any updated information since last Friday, I have to report that Bob Gates, KJ4IC is now a SK. Bob passed away during the night of May 27th. Though we have limited information I was told that Bob had not been ill by all accounts and his death was sudden and unexpected. Bob was an active MARCI Member, a volunteer during MARCIFEST in 2021, and enjoyed playing the guitar. I did not know Bob particularly well, but he impressed me as a really nice man. I'm sure we are all sorry for his family over their loss.

Last week I also met Judy Strom, the widow of AG4S RODNEY STROM, of West Bradenton who passed away 4 years ago. Mrs. Strom asked me to help her with the sale of Rodney's modest collection of ham radio eqpt. These items are available for sale and will be listed on the Wednesday night MARCI HAM TRADER'S NETs on the 146.820 repeater and in this issue of RADIOWAVES.

MARCI has not done FIELD DAY in the last few years and due to the pandemic most recently. Well, I'm sorry to report there will not be a FIELD DAY effort sponsored by the Manatee Amateur Radio Club this year either. The surveys sent to you the membership went generally without reply and those VERY FEW that did get reply were from members not interested. Frankly, I find that somewhat sad but that's just me.

Of course, I want to remind you of the GENERAL MEMBERSHIP MEETING to take place via ZOOM on Tuesday night June 7th. This may be our last ZOOM Meeting! A reminder, we do not have a meeting in July of each year as a rule. Therefore, after the June 7th meeting the next meeting will be on August 2nd. This will be a LIVE MEETING to be held at the BIBLE BAPTIST CHURCH at 2113 Morgan-Johnson Rd. in east Bradenton. Yes, LIVE MEETINGS are back! I hope to see all of you there. 'Swap and Drop' tables will be in the rear of the room for those with something TOO GOOD to throw away but that a member might like to have. You may also find something to pick up for yourself as well.

Lastly, the pesky issue that plagued the MARCI repeater appears to have been solved by Ed Skalecki. I/we apologize for any inconvenience to members and other users. When a repeater or other electrical device is 'on line' for 24hrs a day and 365 days a year, an occasional equipment failure should come as no surprise. But as always, we work hard to solve any issue as quickly as possible.

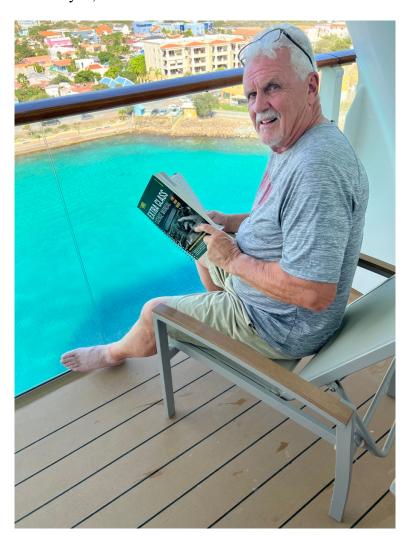
I hope you all enjoy the next General Membership Meeting on June 7th. I think you will find the presentation interesting and informative. The ZOOM link to the meeting is (as always) on the MARCI Webpage so please TUNE IN.

During our May meeting we had expected to have Bob Harrigan, meteorologist from CH-40 TV in Sarasota. Bob apologized for missing the meeting as he was overcome by events. We hope to have him again at another time. However, in his absence during the meeting we all had an interesting discussion about licenses, fees, upgrades, and on-line ham testing websites. I am working myself on an upgrade. My wife took my picture enjoying the view of the harborage at

GRAND CAYMAN ISLAND while studying the EXTRA CLASS UPGRADE MANUAL. I'll be in a VE Session at some point before the end of the year so wish me luck.

'73 all and have a great month. And tell someone you love 'em won't you?

-Mike Ryan, K4CVL



From the Editor

I'm still experimenting with various styles for the newsletter, so you may see a few noticeable changes each month, and some inconsistencies in styles, although some changes will be subtle. Hopefully things will settle down in terms of formatting soon. Please have patience with me!

June 1st marked the beginning of hurricane season, which runs through the end of November. Please make sure you have a hurricane/disaster plan in place for your family, and that your family members are aware of what should be done to prepare for any potential weather threats.

Geoff Haines, our former Radio Waves editor for many years, was asked to republish an article he wrote for *QST magazine* in the March 2013 issue. His very informative article entitled "A Different Way to Make a Tilt-Over Mount and Mast" is added to the end of this newsletter.

I will normally try to publish Radio Waves about a week before our monthly MARCI meeting. Clearly, I did not meet that goal for this issue, and I apologize. I'm discovering that more than half of the effort in compiling the newsletter content involves going through many emails, texts, and phone calls to document items to be removed from items for sale, or added to items to be sold, or modifying item descriptions, asking prices, and pictures. I will try to set up a standard procedure soon so we all can work together to make the "Items for Sale" section of our newsletter current and accurate for our readers.

Until next month, continue to enjoy our fascinating hobby, and be safe!

Brian Biery, N4BB Radio Waves Editor

ARRL Licensing Updates

License Exams and Fees

Information from Jim Woodson, KE4INM, our very own local Volunteer Examiner Coordinator, which he obtained from ARRL.

Reminder: FCC \$35 Amateur Application Fees Effective April 19, 2022

Amateur radio application fees, including those associated with Form 605 application filings, became effective April 19, 2022.

The \$35 FCC application fee applies to new, renewal, rule waiver, and modification applications that request a new vanity call sign. The fee will be per application.

Administrative updates, such as a change of name, mailing or email address, and modification applications to upgrade an amateur radio licensee's operator class or to request a sequentially issued call sign, are exempt from fees.

VECs and Volunteer Examiner (VE) teams do not collect the \$35 fee at exam sessions. VEC and VE team licensing procedures are unchanged. New applicants will pay the \$15 exam session fee to the ARRL VE team as usual and pay the \$35 application fee directly to the FCC.

VE teams can point candidates to our FCC Application Fee webpage for the detailed instructions and information about the FCC fees.

Youth Licensing Grant Program Information

Beginning April 19, 2022, ARRL will cover the one-time \$35 application fee for new license candidates younger than 18-years old for tests administered under the ARRL Volunteer Examiner Coordinator (ARRL VEC) program. The \$35 FCC application fee will be reimbursed after the ARRL VEC receives the completed reimbursement form and the new license has been issued by the FCC. The reimbursement check will be mailed to the fee payer. Also, candidates younger than 18-years old would pay a reduced exam session fee of \$5 to the ARRL VEC VE team at the time of the exam. The \$5 fee is for all candidates under the age of 18 regardless of the exam level taken. Proof of under 18 status is required at the session (what to bring to an exam session).

http://www.arrl.org/youth-licensing-grant-program

Geoff's June Puzzle

QST MAGAZINE

PTRMBNXCRRKXVXFQ GQAMTCZEAEMLAKNL ETCMMNNSTCKOOJFL NRSJGRECDECGQOYP ECOTUROXKILKHEPY RCXTHVTFMVDYBCDM AXQWEAOTREMMRNRT LLJRFQMIPRRFUEAX J Q A L G B N M D R N B E R D K ZGEVHLQZAAQLTENK ESMTFYTTRRRDAFAJ LASREVINUTLNMNTY POLICINGKGTUAOSF PNS I GNAL ON ERNCCT CWASHINGTONTMDBK YCNEUQERFLXJPMDK

www.WordSearchMaker.com

AMATEUR	LOOP	RTTY
COAX	OSCAR	SELF
CONFERENCE	POLICING	SIGNAL ONE
COVERAGE	QRP	STANDARD
FREQUENCY	RADIO	TURNER
GENERAL	RASER	UNIVERSAL
HAMMARLUND	RECEIVER	WASHINGTON

Items for Sale

Estate Sale items From Steve Milovich, W4ASM, of Parrish Contact Pete, KA1WBE at (941) 580-8696 (call or text), or Mike Ryan.

Note: All items but one (*) are manufactured by Swan

Power Supplies PS-10, 400 PS, DSU-2

VFOs

410, 410C, 420, Tempo 2010 External VFO

Radios

240, 350 (3), 350A, 350B, 350D, 400 (2), 500. Cygnet 300B

Antenna Tuners St-1 (2)



It covers the bands of 160-10 meters, switched inductance T-match type, and is designed as a legal limit (1KW) tuner, built to complement legal-limit amplifiers.

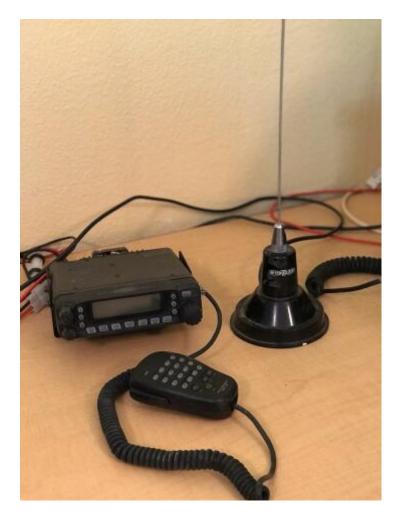
Asking price \$100

Meters WM-2000

Amplifiers
Swan 1200z, CUBIC 1500ZA(*)

These items are for an estate sale from a club member

Yaesu FT-7800 with a dual band antenna and mobile bracket. Asking \$180 $\,$



Contact Pete Jarosik

Pete Jarosik – KA1WBE - Please call or text (941) 580-8696

- Kings Type RF connectors for RG-8U, RG-213 \$5.00 each or 5 for \$20
- MFJ Voice Keyer \$100



• MFJ 906 Tuner (300 watt) \$40



• Very rare EL-KEY lever CW keyer (only 400-600 made in the late 50's) \$100



• Astron RS-12 Power Supply. Asking \$35.



• Drake MS-4 speaker and power supply \$150.



- Yaesu HF + 50 MHz All Mode Transceiver [left bottom], comes with MD 100 desk mic [right]. Asking \$595.
- MFJ 989 C 3 KW roller inductor tuner [left center]. Asking \$175.



These Items can be viewed on Bradenton-Sarasota Craigslist under Electronics. Key word "HAM RADIO."

Jack Mrozak - K2CTH - (941) 254-7393

Since hurricane season is here, this is a perfect item for emergency power:

Yamaha Inverter Generator, 1600 watts/2000 watts peak. Never used bought new about 2 years ago for \$550. Will sell for \$400. Nice for emergencies or field day.



Geoff Haines – N1GY - 941-447-8579 (cell) or 941-752-3696 (home)

- Offer to build: Custom extension cables for any remote-able radio such as the Yaesu FTM-300, 350 etc.
- Anderson Powerpole Power Distribution Blocks in 4+1, 6+1, and 8+1 sizes \$10, \$15, \$20 each respectively. Can custom build to suit.
- In addition, I have more parts and components than I will ever use, so if you need something, a transistor, a plug, a jack, etc. Call me first, I will give you a great price (as in no charge).

MARCI Library Update

Our Treasurer, Jack Ham, WG9X, was given a set of flash cards to assist in studying for the General license exam. This study aid will be added to the MARCI library soon. If you are looking to upgrade your Technician License to a General License, these flash cards will help you tremendously in your efforts to master the test material.

Refer to the Mometrix Test Preparation website for more information: https://www.flashcardsecrets.com/hamradio/

VE Exam Sessions

When you're ready to take the Technician, General or Amateur Extra License exams, you may take them locally.

VE Exam Sessions: June 18, 2022 – August 20, 2022 – October 15, 2022 – December 17, 2022.

Location: Bible Baptist Church of Bradenton 2113 57th St E Bradenton, FL 34208

Contact: James E. Woodson (941) 301-8703

Sponsor: Manatee Amateur Radio Club, Inc.

Club Meetings

Monthly MARCI Club Meeting

The next monthly general membership meeting will be on Tuesday, June 7th, via Zoom. We do not have a meeting scheduled in July each year. Our August 2nd meeting will be "in person" at the Bible Baptist Church located at 2113 57th St E, Bradenton, FL 34208.

Monthly MARCI Board Meeting

Tuesday, June 21st at 7 PM on Zoom.

Monthly ARES Meeting

The next general membership meeting will be on Tuesday, June 28th at 7 PM at the Bible Baptist Church of Bradenton and will also be available on Zoom.

Clubs and Other Nets

MARCI Info Net	Sunday 7:00 PM	146.820 - 100 Hz
ARES Net	Monday 7:00 PM	146.820 - 100 Hz
MARCI Traders Net	Wednesday 8:00 PM	146.820 - 100 Hz
Manatee SKYWARN Net	Thursday 8:00 PM	146.820 - 100 Hz
WCF Eagle Net (Local NTS	Nightly 8:30 PM	145.43 - 100 Hz or
Net)		442.95 + 100 Hz
WCF Technical Net (tech	Thursday 9:00 PM	145.43 - 100 Hz or
assistance)		442.95 + 100 Hz

PLEASE PARTICIPATE IN ALL OF THE NETS ON OUR REPEATER

Our Manatee Amateur Radio Club Net every Sunday night at 7 PM on the K4GG repeater, 146.820, is an excellent opportunity to learn about all the fun amateur radio activities that are happening in our club and across our ham radio community.

Our Club Net on Sunday night is often very poorly attended. Our club has over 60 members. Surely at least 15 or 20 of you can take 20 minutes out of your Sunday evening to check into your own club net!

On Monday evenings, feel free to drop in on the Manatee County Amateur Radio Emergency Service (ARES) Net at 7 PM. They are a bit more tactical and an easy way to improve your own operating skills.

On Thursday evenings at 8 PM, we host the National Weather Service SKYWARN Net. Everyone is interested in the weather and SKYWARN is an easy way for you to contribute to this popular public service program.

DON'T FORGET about the Regional Nets on NI4CE on 145.430 and 442.950. The Eagle Net, the National Traffic System Traffic Net, is on every night at 8:30 PM. Whether you are interested in "Traffic Handling" or not, everyone is welcome to check in and enjoy putting your radio to good use. They also host the regional SKYWARN Net on Tuesdays at 9 PM.

The ARRL West Central Florida Technical Net is a very popular and informal activity held every Thursday at 9 PM or immediately after the end of the Eagle Net should that net run a little over.

With so many opportunities to listen in and participate, you are sure to meet new folks and discover many more of the interesting ways to use and enjoy your amateur radio license!

A Different Way to Make a Tilt-Over Mount and Mast

See Geoff's QST article on the next page.



Tilt-Over Mount and Mast Tilting makes raising antennas easy, and this

A Different Way to Make a

Tilting makes raising antennas easy, and this scheme works on the road as well.

With the inner tube (the one with the caster wheel attached) gone, I measured the inside diameter of the outer tube. I thought it would be a slip fit for 1% inch tubing. The outer diameter of the tube is a nominal 2 inches. Unfortunately, the jack manufacturer's claim that the inner tube was 1% inch turned out to be a hair off — more about that later.

First Dismantle

I do not have any pictures of the disassembly process but it was relatively simple. The drift pin I removed from the crank allowed the crank and its associated gears and washers to be removed easily. If the tube holding the caster is rotated down a few turns and then pushed up, the cylindrical pin that holds the other gear in place falls out easily and the

entire sub assembly can be pulled out the bottom of the outer tube. The outer tube is then rotated so that the top (where the gears were) is now the bottom. Since the rotating plate that holds the tube to the mounting bracket has an extra hole (one in each lower corner) and the bracket itself has one in each corner to match, an extra bolt with a captured nut can be used to provide a safety lock so that if someone accidentally pulls the spring loaded lock handle the mast will stay vertical.

Then Install

The mount for the jack is normally clamped around the tongue of a boat trailer but the base has several sets of holes predrilled to accommodate various sizes of fittings. I chose to use 2 inch muffler clamps (short U-bolts) to attach the base of the jack to the 12 inch long $1\frac{1}{2}$ inch ID pipe nipple that is the vertical portion of my portable mount (see Figure 2). I originally planned to use stainless steel U-bolts but they were too long and the muffler clamps turned out to be exactly the right length and are a more robust thickness to boot.

I call my portable mount "Bigfoot," but it's just an $18 \times 10 \times 2$ inch oak plank with a floor flange and pipe bolted to the outer portion. The inner portion is placed under a front tire by driving the car up onto it so that the weight of the car keeps the portable mount solidly in place (see Figure 3 and 4). The nipple and

Geoff Haines, N1GY

I'm always trying to make the deployment of my portable Amateur Radio operations easier. One of the more difficult tasks has been the erection of my antenna mast. I have used a tilt-over type mount for several of my base station antennas in the past with great success, so I figured I could do it again for use while away from home.

Commercial tilt mounts tend to be pricey and are generally not designed to attach easily to the "under the tire" mount that I built several years ago. My son and I were discussing the options available when I noticed one of his boating catalogs on the table. A tilt-over boat trailer jack seemed to be just the ticket.

The Plan Comes Together

Within a few days I had occasion to go to the Northern Tool store in Tampa. They had just the jack I was looking for (see Figure 1) and it was even on sale. The disassembly of the telescoping portion of the jack took less than an hour. I simply drove the retaining pin out of the crank handle and removed the gears. This was the messy part of the job since they were covered in grease, but a can of brake cleaner and some rags helped a lot.



Figure 1 — This is what we started with — a stock trailer jack that I got on sale for \$18.

Figure 2 — Mounting the jack to a preexisting "under car mount" I built several years ago was simply a matter of using 2 inch muffler clamps available at any auto parts store.





Figure 3 — The completed mount is in place under the wheel of my Blazer. You can see the safety bolt that we added to ensure that a snagged rope cannot drop the antenna mast accidentally.



Figure 6 — Securing these stainless steel hose clamps does not require the use of a screwdriver or nut driver. The key is operable without tools.



Figure 4 — The mast is in place ready to be elevated with the help of the jack.

2" OD QS1302-Haines06 1.9" ID Modified trailer jack Vehicle tire Spring loaded locking pin 1.5" ID 2" U-bolts 12" pipe nipple Oak plank Oak plank

- This drawing shows the major elements of the jack, with the mount in place under a front tire

flange are insulated from the ground so that they can be part of the antenna system without grounding it. With the boat jack in place, the bottom of the jack clears the ground by about 1½ inches when vertical and the tilt mechanism is similarly isolated from ground (see Figure 5).

It just so happened that one of my suppliers of aluminum telescopic tubing, DX Engineering (www.dxengineering.com), had that size in stock, along with all the other sizes to make a telescopic mast of almost any height. With the arrival of the tubing, the construction of the mast began. Since I already had a telescopic aluminum mast, I simply had to add the larger diameter sections to the bottom of that mast to get it from 1.5 to 1.875 inches. This required three lengths of tubing, 1.875, 1.750 and 1.625 inches in outside diameter. I mentioned earlier that the inside diameter of the trailer jack main tube was a bit off. When the new tubes arrived, I found that the largest one (1.875 inch) would not fit into the jack tube.

The solution was easy. I had ordered 6 foot lengths of tubing knowing I would be cutting them down to 4 feet to match the existing sections of the mast. I simply slid a 2 foot section of the 1.75 inch diameter tubing into the bottom of the larger section and joined the two pieces securely using six sheet metal screws. This did make the mast a little taller but the beauty of a telescopic mast is that it can be any height you want below its maximum length.

Together with the 1.500, 1.375, 1.250 and 1.125 inch sections from the old mast, I had a mast that could run to a maximum height of 23 feet and could be lowered to NVIS height as needed. It was considerably more rugged than the previous mast, which would bend precariously if a relatively heavy antenna were mounted. To secure each length of tubing to its neighbor, the usual method is to use hose clamps. As with the previous telescopic mast, I chose to use a particular clamp that, so far, I have only found at one source. MSC Industrial



Figure 7 — In December 2007 QST, I wrote an article about the "Octopus Antenna." This adaptor fits it to the new mast, which is somewhat larger in diameter.

Pulley for wire antenna at one end while also support a wire antenna on the other is reinforced with aluminum tubing inside the PVC pipe and an aluminum brace screwed to the aluminum. The tape shown is purely to cover sharp edges and for aesthetics.

Supply Company (www1.mscdirect.com) has stainless steel hose clamps with a hand operated key permanently attached to the bolt that adjusts the clamp (see Figure 6). This makes it a "no tools needed" affair to set up the mast in the field. There are other clamps that also appear able to be hand tightened but they use plastic keys or knobs. The MSC clamps are the only ones I have found that are all metal.

Putting the Antenna in Place

I was concerned that the various antenna setups that I used with my original mast were all designed to use a length of ¾ inch inside diameter PVC pipe as the mounting arrangement. This would slip over the top of the mast that was also ¾ inches in diameter. Luckily, I discovered that the outside diameter of that same ¾ inch PVC pipe is an easy fit to slip *inside* some thin wall PVC pipe that I had on hand. A few turns of vinyl tape made the fit just right and a few self tapping stainless sheet metal screws made the adaptation permanent.

The thin wall PVC then fits over the 1½ inch aluminum tubing that is the top section of the new mast. Each thin wall section is secured to the mast with the same type of hose clamps that I use to connect the sections of the mast.

With a little fabrication I was able to make an adapter to fit my Octopus array to the 1½ inch aluminum tube (see Figure 7).

I also fabricated a new adapter to enable the use of wire antennas fed with ladder line (see Figure 8). I had to make the attachment point at least 12 inches away from the aluminum mast to avoid affecting the ladder line. This was accomplished by building a PVC T out of 3/4 inch PVC pipe, reinforced with 3/4 inch aluminum slipped inside the PVC. I also added an aluminum brace to triangulate the gantry so that hoisting the antenna would not stress the mast too much. The braced end of the T is fitted with a pulley and rope to allow raising a wire antenna independently from the raising of the mast. This mounting adaptor also has provision for a VHF/UHF antenna mounting on the opposite end of the T. With that completed, any of my original antenna systems will fit the newly upsized mast.

I plan on using my Octopus antenna array but I can also use my homebrewed Carolina

¹G. Haines, N1GY, "The Octopus — Four Band HF Antenna for Portable Use," QST, Dec 2007, pp 36-38. Windom (the "heavy" antenna that caused the previous mast to bend) as well as my G5RV Junior antennas in place of the Octopus if necessary. The mast itself can also be used as a vertical antenna with the appropriate automatic or manual tuner in place. Radials would be needed to make the vertical perform adequately. Wire is cheap and it would not be hard to make 12 or 16 wires, each 25 feet long, to attach to the tuner at the base and spread them out on the ground around the mast. Other writers have noted the use of inexpensive metal tape measures as radials, which have the advantage of being self storing.

Keeping it Up

Since the mast I built is only 23 feet tall, one set of guys is sufficient even if I use a relatively heavy antenna like the Octopus. In order to make setting the guys easier for me, I chose to go with a package of four 14 foot long, 1 inch wide tie down straps with ratchet handles. Their extra weight would have been too much for a light duty mast, but with the mast now starting at 1% inches and the guys attached at the 1.5 inch diameter point on the mast, the heavy duty guy straps are appropriate. They attach to the mast at the 10 or 11 foot level.



Figure 9 — A close up of what must be the most unusual guy ring I have ever seen. Made from an aluminum candy dish my spouse donated, it is very heavy gauge aluminum and has a floral design stamped into it

I have tried the three guy line setup in the past and I like the extra security of four. The military has standardized four guy lines per level and they generally don't do anything without testing it thoroughly first. The ratchet handles on the guy straps are placed near the ground anchors so the extra weight is minimized and the ratchets are accessible that way. Speaking of the ground anchors, several companies make excellent screw type ground anchors.

I chose, based on past experience, to go a different route. Many years ago I picked up metal stakes that were originally used for tying down helicopters in Vietnam. I have used them for years and not one has ever pulled out until desired. They have a short metal cable with a spring loaded hook on the end of the cable. They are very strong and have a W shape similar to a miniature metal highway barrier. A metal cap ensures that they can be driven all the way into the ground. To remove them simply pull up parallel to the stakes' orientation. Pulling in any other direction does nothing. Since I have no idea if they are still available or even where one could find them, you will have to

choose an available ground anchor that works for you.

To attach the guy straps to the mast, some kind of guy ring was necessary. All the commercially available guy rings that I saw had a maximum mast diameter of 1.25 inches. I needed one for a mast diameter of 1.5 inch. I checked with a couple of fabricating companies in my area and they wanted more for the ring than I had invested in the whole project. I figured I had to go back to homebrewing to get what I wanted. While discussing the problem with my wife Audrey, KJ4YMX, she reached into the dark recesses of a cabinet and pulled out an aluminum candy dish we had gotten as a wedding present many years ago. With the drilling of five holes, four at 7/16 inches for the guy hooks and one in the

center to fit the 1½ inch mast (see Figure 9), the deed was done. The material of the dish is very heavy gauge aluminum, easily capable of taking the strains expected. Given that it also has a floral design stamped into the aluminum, it must be the most elegant guy ring in all of Amateur Radio.

Putting it Up

The first test of the new mount and mast combination was elementary. I placed the drive-on mount under a wheel of my car and installed the 23 foot mast into the jack tube in a horizontal position (see Figure 4). I then pulled the spring loaded pin on the jack and proceeded to walk the mast up to a vertical position. As it reached the upright position the spring loaded pin clicked neatly into the matching hole in the base. I added the safety bolt on the other side of the jack tube and the mast was now secure.

My wife and I have repeated the testing with each of the antenna mounting adaptors with and without the guy straps in place. All tests were successful. Obviously, the guy straps will be used at all times, but it was nice to know that the mast is strong enough that they are an added safety measure, not a

critical part of just keeping the mast upright. With the guys in place and the base suitably secured to the ground with three 12 inch land-scaping spikes, the car can be driven off the base and used elsewhere.

Wrapping it Up

I will not bother you with the testing of the performance of the various antenna systems that we can deploy with this mast and mount. Each one that I tried worked up to its potential. Suffice to say that one can mount any antenna system that will perform at around 25 feet altitude, whether it be of vertical or horizontal persuasion. With the appropriate number of radials and the 10 foot stinger extension in place, it can also operate as a multi-band vertical antenna itself if an antenna coupler or tuner is used.

This project is adaptable to many different types of antennas and many different situations. It can be set up as high as 33 feet (with the 10 foot "stinger adaptor," see Figure 10), or as low as 8 to 10 feet for NVIS use. It can be used for HF or V/UHF antennas. It can also be used for park or beach DX when the need arises. With the increased risk of weather emergencies here in Florida, and the frequent opportunities for beachside DX in calmer times, I expect to be using this system frequently in the future.

Geoff Haines, N1GY, was first licensed in 1992 as a Technician Plus with the call sign N1LGI. He received his current call upon upgrading to Amateur Extra in 2005. Geoff is retired after a career in intensive respiratory care.

Geoff currently holds several ARRL appointments in the West Central Florida Section including Assistant Section Manager, Technical Coordinator, Net Manager and Official Emergency Station. He is a past president of the Manatee Amateur Radio Club, a past president of the West Central Florida Group, (operators of the NI4CE linked repeater system) and a member of several ham radio clubs both in Florida and Connecticut. In his spare time, Geoff researches, designs and builds projects such as antennas and station accessories for Amateur Radio. He also finds time to update his website www.n1gy.com on a regular basis.

His wife, Audrey, KJ4YMX, is also an active ham. Both participate in ARES, Skywarn and other club activities. Geoff can be reached at 904 52nd Ave Boulevard West, Bradenton, FL 34207 or at n1gy@arrl.net

For updates to this article, see the *QST* Feedback page at www.arrl.org/feedback.





Figure 10 — This "stinger" uses a 10 foot MFJ telescopic whip to extend the mast to 33 feet for use as a vertical antenna. A radial field of many 35 foot radial wires is necessary to make it effective, but the option is there.