



Next Meeting

Tuesday, April 7, 6:00pm, Bullock's BBQ
Program: The Collins KWM-1 Restoration Project
By: John Green, KX4P

John will give a presentation including slides and video illustrating his work in restoring a Collins KWM-1 transceiver.

He writes this about the rig:

"The KWM-1 was a historic milestone in HF radio communications ushering in the first commercially successful transceiver. Prior to its development, ham communications used separate receiver and transmitter equipment. By the mid 1950s, most stations were true "boat anchors" using 120 pound AM transmitters and 65 pound receivers, all connected together with relays, cables, wires, etc. The Collins "Gold Dust Twins" (KWS-1 and 75A4) were top of the line examples.

In 1956 Collins produced the KWM-1. It was the first commercially successful transceiver. It replaced AM with SSB and offered a complete 100 watt



The Collins KWM-1 *Image courtesy of KX4P*

mobile/desk-top station in a small 16 pound cabinet. Only a few were made because, being immediately popular, it was redesigned and produced for both the amateur and military market as the famous KWM-2 (1958-1978 ?). It was later redesigned as the all solid state KWM-380 (1979-1983). Collins then exited the ham radio market."

President's Corner

A Good April to All of You!

Another reference unit of time has passed since my last update, and it appears that much has happened and much is about to happen. Now that Winter seems to be behind us (he types with crossed fingers) we start building towards two of our great annual events -- the DurHAMFest and Field Day. Plans are afoot for each of these! This is your President's (nay, King's!) annual appeal for you to join in the planning, operation, and participation in both of these events. All are welcome!

This month we will have our annual table at RARSfest at the State Fairgrounds. Please stop by the tables as I'm sure there is likely to be something you will surely want to buy/trade. Also, our tables (jointly operated with the Orange County Radio Association) is yet another activity for you to join in our never ending set of opportunities to volunteer in service to DFMA -- some of that gear can sell itself... we need help with that batch of gear that probably needs some help.

For the past two months we have been running an Extra Class course on Saturday mornings. A hearty congratulations to both students and instructors. Only one more class until the finish and the students take their exam. Good luck to all of you!

I shall see you all... April 7 at Bullock's.
73, Michael, KK4EIB

RARSfest 2015

8am – 3:30pm Saturday, April 4

Jim Graham Building, NC State Fairgrounds
1025 Blue Ridge Rd, Raleigh NC

Tickets \$10 Free Parking
For more information see:
www.rars.org/rarsfest

This is the largest truly local hamfest and has good participation from the major vendors. If you want to pick one local hamfest not to miss it would be RARSfest (except for DurHamFest, of course :-)



RARSfest of a year past

Club Table at RARSfest

The DFMA will have a Club Table at RARS. Members are welcome to sell personal items at this table. You are expected to give a small cut of any sales to the club to help pay for the table. The Possum Trot Net usually has a presence at the DFMA table as well

(If you get there early, you may have to ask for the tables reserved by KU4GC. I've also reserved a table for OCRA which will be adjacent.)

Antennas for Everyone

- Max, KO4TV (From the December 1997 DFMA Link)

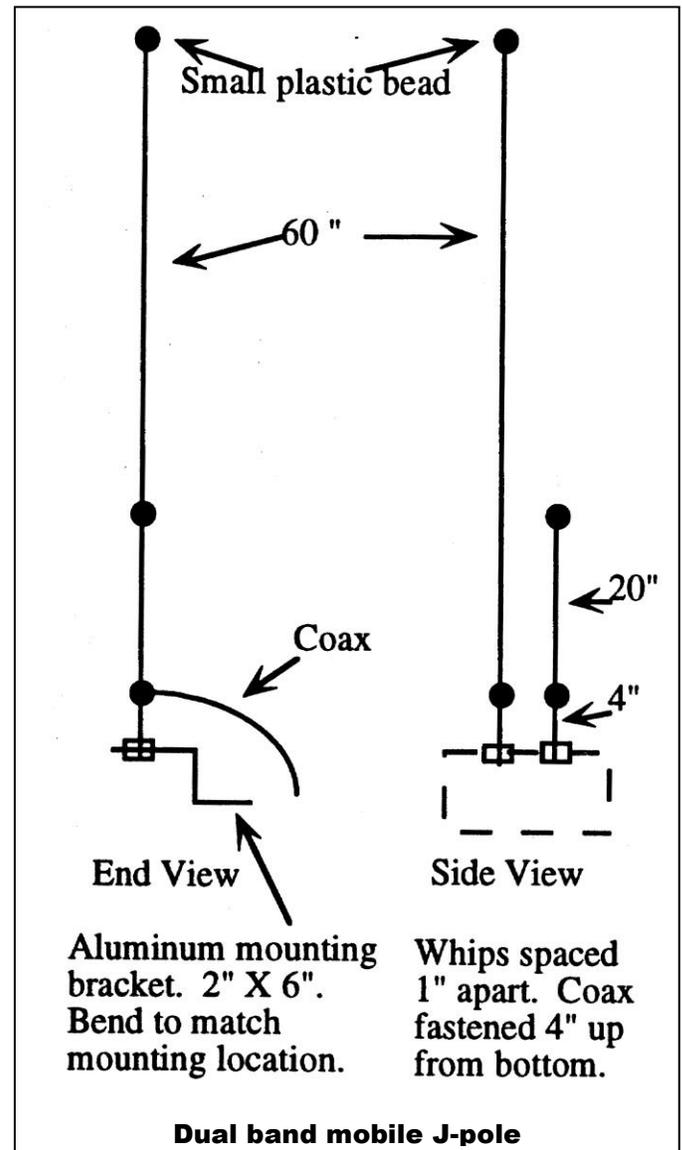
(Below is a copy of Max's article on building your own mobile antenna. I bought a couple of finished units from Max many years ago. I mounted one on the bumper of KF4PABs van – no ground plane needed - and it works quite well. I still use one for my home UHF/VHF indoor base station antenna. It has done many DFMA Thursday Night Nets. More reprints of Max's articles are planned for a future edition of the Link. - Dee, KU4GC, editor)

A Dual Band Mobile

With the increasing popularity of dual band mobile rigs, its about time for a high-gain, rugged easy-to-mount yet extremely inexpensive 145/440 MHz mobile antenna. This one can be mounted either to the hood lip or trunk lip on most vehicles, usually without even drilling any holes anywhere in the car. (For example, mine was mounted on the left front fender using one hood hinge bolt to secure it in

place.) It does not require a ground plane for proper operation, and therefore is well-suited for newer vehicles that are mostly plastic or fiberglass. It is also an excellent performer on a boat, bicycle, motorcycle, or even for a base.

As is the case with all of my antenna designs, this one has been built and tested, not just computer-modeled. It is nothing more than an adaptation of our old friend, the J-Pole. It is effectively a half wavelength on 2 meters and 1.5 wavelengths on 440. The drawings are self-explanatory, so we will not need to devote much space to text.



Parts are readily available. The brass rod used for building this one can be obtained at most hardware stores for 2.99 per 36 inch rod, or it can be obtained from any welding supply store for about 40 cents per rod! Just ask for 18 inch uncapped brass brazing rods. If you are lucky enough to find a 60 inch stainless steel whip for the main section, fine. If not,

you can solder two 36 inch brazing rods together to form the whip. I could only find a 54 inch whip, so I fastened a 6 inch extension made from small piano wire to the top, using small split nuts. Making the extension about 8 inches long provides for exact frequency adjustment. The connection of the coax to the antenna is also made with small wire nuts.

[Editor's note: I think the references to split nuts and wire nuts made here are what are often called split-bolts and are available at Home Depot and Lowes in their electrical sections.] These are available at most electrical supply stores, or if you wish, you can solder the coax directly to the antenna rods, if brass is used for both sections. It should work well with the dimensions given, but like most antennas, you may wish to fine tune it with an SWR meter or antenna analyzer.

Next month, I hope to present plans for the famous "Screwdriver" HF Mobile Antenna. Until then, HAPPY CONSTRUCTING!

Additional notes:

Bottoms of rods threaded 6-32 X 1/2" and secured with 2 each 6-32 nuts and lock washers. Coax polarity does not matter.

Be sure to seal the open end of the coax with RTV or similar sealant to keep water out of the coax!

73, Max, KO4TV

Board Meeting Minutes

Durham FM Association (DFMA)

DFMA Board Minutes - 03/17/2015 - Dan, KR4UB, Secretary

Location: 1920 Front Street, Durham

Attending: (y)Michael, KK4EIB, president; (y)Dee, KU4GC, vice president; (y)MK, W4MKR, treasurer; (y)Dan, KR4UB, secretary; (y)Charlie, NC4CD, repeater manager; (y)Dave, W4SAR, field day coordinator; (y)Paul, KE4OXN, hamfest chair; (y)Skip, WB4P, past president; (y)Pete, K4PHS, at-large member; (y)Bob, W4RWC, at-large member; (y)Dan, KK4DMS, at-large member; (y)Karen, KD4YJZ, at-large member

President: Michael, KK4EIB, called the meeting to order at 7 pm.

REPORTS

Treasurer - MK, W4MKR

Members: 80 (whose dues are current).

Secretary - Dan, KR4UB

The minutes for the 02/03/15 Board and 02/03/15 Club Meeting were approved unanimously.

Vice President - Dee KU4GC

RARSFEST tables will cost \$18.00 this year; DFMA will purchase 1 table and Dee will check if OCRA wishes to purchase another table.

Dee brought up the need for a new DFMA Club banner for DurHamFest and will pursue options available for purchase. Per discussion, a larger banner would be needed, especially if a new alternative hamfest site is chosen.

The Extra Class is going well with good attendance. The class will skip Saturday April 4th due to RARSFEST. An additional Saturday will likely be needed to complete coverage of all the material.

The next DFMA meeting presentation will be by John Green, KX4P on the restoration of his Collins KWM-1.

Repeater Manager - Charlie, NC4CD

Negotiations on the Hillsborough repeater site are still ongoing. Remaining key topics are the cancellation and termination clauses in the event the commercial tenant(s) were to no longer need the site.

Hamfest Chair - Paul, KE4OXN

Paul reported the Little River site is available for this year's DurHamFest. He is still pursuing an alternative site that would be more centrally located and is a more modern facility.

Field Day Coordinator - Dave, W4SAR

Dave reported discussions are underway to confirm band captains and some changes in the site layout to enhance antenna locations for 2015 Field Day. Wilson, W4BOH, has agreed to make his site available for the 2015 DFMA/OCRA Field Day.

NEW BUSINESS

No new business.

Meeting adjourned at 8 pm.

Club Meeting Minutes

Durham FM Association (DFMA)

DFMA Meeting - 03/03/2015 - Dan, KK4DMS, Acting Secretary

Location: Bullock's Barbeque, Durham

Attending: KU4GC, Dee; WD4CEE, Terry; W4MKR, MK; WB4P, Skip; KK4DMS, Dan; K4PHS, Pete; W4SAR, Dave; KD4YJZ, Karen; KK4BPH, Mike; N2XZF, Paul; KW4G, Tim; KV7D, Adriano; KF4KHU, Jimmy; K00UX,

Vic; KR3AM, Mark; WA2ROC, Dick; W4OFZ, Banks; W4RWC, Bob; WA4AHR, Dewey; KE4QOZ, Joanna; KE4HIH, Rhett; KK4EIB Michael; AA4XX, Paul; KA4AVM, Sue; W4ORD, Lad; KX4P, John; KI4RAN, Bill and Pres; N8XU, Jack; W4PEL, Pete; W4BOH, Wilson; NC4CD, Charlie; WA2JLW, Roy; NA4VY, Dave; K1OC, Tony; KI4QXJ, Ken; KE4UVJ, Don; WB4YYY, Jim; KE4HQO, Jim.

A total of 38 attending, 37 of them hams.

President: Michael, KK4EIB opened the meeting at 7pm with introductions.

REPORTS

Treasurer – MK, W4MKR

Current Members 74

Vice President – Dee, KU4GC

Dee reported that Dan, KR4UB had an accident with a snow plow.

Dee reported that the April club meeting program will be a presentation by John, KX4P on restoring Collins radios.

Dee reported that the Amateur Extra class has started and is doing well.

Hamfest

Dee reported that the location of DurHamfest is to be determined.

Repeater Manager – Charlie, NC4CD

Charlie reported that negotiation continues on the Hillsborough repeater site lease documents.

ARES – No Report

Field Day Coordinator – Dave, W4SAR

Dave reported that he has polled the 2014 band captains and most of them will continue in their current positions. Field Day 2015 will be held on Wilson's, W4BOH, property.

Auction - Dan, KK4DMS, was the lucky bidder for a cap; Pete, K4PHS out-bid all for a DFMA patch.

Door Prizes - Door prize winners were Terry, WD4CEE, Rhett, KE4HQO; Banks, W4OFZ; Tim, KW4GP

Program Presentation

Paul Stroud, AA4XX, presented a very well received topic "The World of QRP". Paul showed us how QRP is much more than doing a lot with very little power.

QRP can be the basis for a one man DXpedition from "Summits on the Air" like Black Balsam Knob to Shackelford Banks and Lea Island.

NEW BUSINESS

No new business

Meeting adjourned at 8pm.

Board Meeting Minutes

(Note: this was a makeup meeting because efforts to have a February Board Meeting were thwarted by weather.)

Durham FM Association (DFMA)

DFMA Board Minutes - 03/03/2015 -Dan,

KK4DMS, Acting Secretary

Location: Bullock's Barbeque, Durham

Attending: Michael, KK4EIB, president; Dee, KU4GC, vice president; MK, W4MKR, treasurer; Skip, WB4P, past president; Charlie, NC4CD, repeater manager; Dave, W4SAR, field day coordinator; Karen, KD4YJZ, at-large-member; Pete, K4PHS, at-large member; Bob, W4RWC, at-large-member; Dan, KK4DMS, at-large member

Vice President: Dee, KU4GC called the meeting to order at 5:30pm.

REPORTS

Treasurer – MK, W4MKR

Current Members 74

Acting Secretary – Dan, KK4DMS

The minutes from the 01/20/15 Board, and 02/03/15 Club Meetings were approved by unanimous vote.

Vice President – Dee, KU4GC

Dee reported that Dan, KR4UB had an accident with a snow plow. Karen, KD4YJZ suggested a get well card which was approved by unanimous vote.

Dee reported that the April club meeting program will be a presentation by John, KX4P on restoring Collins radios.

Dee reported that the Amateur Extra class has started and is doing well.

Repeater Manager – Charlie, NC4CD

Charlie reported that negotiation continues on the Hillsborough repeater site lease documents.

ARES – No Report

Field Day Coordinator – Dave, W4SAR

Dave reported that he has polled the 2014 band captains and most of them will continue in their current positions. Field Day 2015 will be held on Wilson's, W4BOH, property.

NEW BUSINESS

No new business

Meeting adjourned at 6 pm.

Buy – Sell – Trade

Wanted: Dead Microwave Ovens

I can use dead/dying/unwanted microwave ovens. The power transformers can be used for power supply construction. Thanks.
Wilson – W4BOH

For Sale: High Quality Coax

Wilson is usually putting together a bulk order for high quality, LMR-400 equivalent coax. By ordering full spools he can usually get it for about one half the typical retail price. Contact him before buying larger lengths on your own.

Upcoming Events (dfma.org for details)

- 4/4 8am-3:30pm RARSfest, NC State Fairgrounds
- 4/7 6pm DFMA Meeting, Bullock's BBQ
- 4/11 10am VE Session, Orange County EOC
- 4/13 7pm OCRA Meeting, Orange County EOC
- 4/21 7pm DFMA Board Meeting
- 5/5 6pm DFMA Meeting, Bullock's BBQ
- 5/23 8am-2pm DurHamFest, Little River Com Ctr

73 - Dee, KU4GC, Editor

- MK, W4MKR, Proofreader

Send copy to ku4gc@amsat.org

Deadline: one week before the Club Meeting

(Images and copy: KU4GC or as credited)

Web Site: dfma.org