



Next Meeting:

Tuesday, November 1

Bullock's BBQ 6:00pm

Program: Nick England, K4NYW: "The 1950's Internet - The US Navy Radio Communications System"

Long before today's Internet existed, the US Navy created a worldwide radio communications system linking ships, shore stations, and aircraft. Text messages (and images) could be reliably routed anywhere in the world in seconds at any time 24/7. The engineering needed to make this all happen was truly mind-boggling - 2 MW transmitters, 30,000' tall (not a typo!) antennas, 70-tube frequency synthesizers, 3000 lb. receivers, and automated message routing centers, all long before integrated circuits, computers, and satellites made such capabilities commonplace. I'll try to provide a (hopefully) interesting and humorous look at the technology and people who made this vast system possible.

Nick England, K4NYW, has been a ham since the early 1960's. A 3D computer graphics and imaging hardware engineer, his hobby is collecting, restoring, and operating vintage radio gear. Nick's ham shack currently includes several tons of 1950's-60's Navy radio and teletype gear. His research into the subject has led him to create www.navy-radio.com with thousands of photos and documents on US Navy radio communications technology. He made a previous presentation to the DFMA on his collection of Heathkits.

President's Corner

Dear Fellow DFMA members:

The Habitat Bike ride this Saturday will be a big event here in Durham and with the DFMA providing communication services. It's important that all that can help out will lend a hand. Let's make it a great success for amateur radio.

73, Bob W4RWC

News: OCRA/DFMA Field Day

Rank: # 6 in USA, # 1 in NC

That's out of 2632 entries! (We were operating as W4UNC.) More to come. For now see:

http://www.arri.org/results-database?event_id=27537

Saturday! Habitat Bike Ride

This Saturday (10/29) is the Habitat for Humanity Halloween Bike Ride Fund Raising Event with routes of 31, 62 and 100 miles through Durham, Person, Granville and Orange Counties. The event begins registering cyclists at 7:30 am; the ride begins at 9am, and ride support ends at 4pm. We will be providing supplementary communications for the event.



Many hams from the DFMA and OCRA have already signed up and preliminary assignments have been made, but it couldn't hurt to have more help. Due to the number of hours, there may be additional needs for this event or

someone might just appreciate a break. Below is our planned support and coverage: *(See map on last page)*

- +**Rest Stop 1** Lebanon VFD, 7900 Russell Rd, Durham NC 27712- Bike Routes 31/62/100
- +**Rest Stop 2** Orange Co Speedway, 9740 NC Hwy 57, Rougemont NC 27571 - Bike Routes 62/100
- +**Rest Stop 3** Bethany Church, 245 Bethany Church Rd, Rougemont NC 27572 - Bike Routes 62/100
- +**Rest Stop 4** Police Dept. Firing Range, 7615 Cassam Rd, Bahama NC 27513 - Bike Route 62/100
- +**SAG Radio Operator Route 31**
- +**SAG Radio Operator Route 62**
- +**SAG Radio Operator Route 100**
- +**Event Coordinator Shadow** at DBAP (HT)
- +**Medical Doctor Shadow** at DBAP (HT)
- +**Start/Finish** at DBAP, MCU
- +**Start/Finish** at DBAP, Durham County Sheriff's Van



Our primary repeater will be the OCRA 442.150 repeater (requires a PL of 131.8). You can watch the objects with APRS trackers at APRS.fi Also, see the APRS article following.

If you are

participating in the event as a bike rider and have an HT,

check in to Sheriff's Van or the DFMA's MCU and let us know you're going to be out there. Then you can report any problems (when you are within HT range). Participation is open to any operators in the area who want to help out, just let me know.

Operators interested in helping with this event email Randy at aec@durhamares.org
Thanks, Randy McCray K4XRM EC/Durham Co ARES
For more event info, go to:
<http://durhamhabitat.org/volunteer/halloween-bike-ride.html>

APRS (continued)

A new APRS digipeater was installed on 10/24 at Red Mountain, just east of 15/501 near the Durham/Person County line. This will improve APRS tracker coverage for the Durham Habitat Halloween Bike Event on 10/29 and will probably be left in place for awhile.

Many thanks to Charlie, NC4CD, for making the tower and antenna available. The antenna is on the south leg of the tower 100' AGL or about 975' above sea level. (Picture courtesy of NC4CD.)

The digipeater belongs to OCRA and was previously located in Carboro, before being taken out of service.

Look for W4UNC-3 on aprs.fi. You will also see an object for the 443.275 Red Mountain NC4CD repeater, which is off the air for upgrading -- so ignore that for now. You may have to zoom in to separate the two objects on the map.



If you want to monitor the APRS activity for the Habitat bike ride, we will be using tactical ID's of HABSAG-n, where n = 1, 2 or 3 currently. There may be some additional ID's used. I did a short test drive on 10/24 using HABSAG-1.

I'll publish a link later that will allow you to see the course routes and APRS activity within Google Maps. Or you can just use aprs.fi (but you won't see the 31, 62 and 100-mile course routes).

If you are interested in getting an APRS tracker for use in public service events, I would be happy to assist.

Steve, W3AHL

Club Meeting Minutes

Durham FM Association (DFMA)
DFMA Meeting - 10/4/11 - KU4GC Secretary

Location: Bullock's BBQ, Durham

Attending: Charlie, NC4CD; Wilson, W4BOH; MK, W4MKR; Dee, KU4GC; Rhett, KE4HIH; Joanna, KE4QOZ; Bob, W4RWC; Lowell, KK4PH; Mike, KK4BPH; Vic, K0OUX; Derek, KO4T; Dan, KR4UB; Steve, W3AHL; Dick, WA2ROC; Dan, KK4DMS; Jim, KB4OT; Dewey, WA4AHR; Sam, KJ4VWG; Audrey, KK4CRZ; Dick, KK4CCX; Bob, NN4I; XYL; Jim, W4KSZ; Dave, NA4VY; Dave, W4SAR; Karen, KD4YJZ; Justin, KD4CPM; Terry, WA4BVY; Shelley; Jim, WB4YYY; Sue, KA4AVM; Adriano, KV7D; Mac, WQ8U; Don, KE4UVJ; Ian, KK4CXA;
A total of 35 including 33 hams.

President - Bob, W4RWC, called the meeting to order at 7:00pm and started with a round of self-introductions.

The Lid - Audrey, KK4CRZ, awarded the DFMA Lid to Steve, W3AHL, for providing help to new hams.

REPORTS

Treasurer - MK, W4MKR: (passed directly to secretary)

Financial balances.

Members: 85 (by the end of the meeting)

Secretary - Dee, KU4GC

The minutes, as shown in the latest Link, were approved without corrections.

Repeater Manager - Charlie, NC4CD

Wilson, W4BOH, reported on his efforts to follow up on email received by the Club via the web site regarding an unused radio tower at Jordan Lake. Charlie provided a list of things we needed to know before we could make any serious decisions.

ARES

Lowell: Met with Mark Schell of the Durham EOC regarding efforts to improve communications. Dee: Randy, K4XRM, is working on our repeat participation in support of the Habitat for Humanity's Halloween Bike ride, on October 29th. Last year that included three bike courses including a 100 mile course through Durham and Orange County.

Other Announcements

Hamnic
BBQ
VE Session

Door Prizes

Ian, KK4CXA won a package of 40 variously colored LED finger lights. Jim, W4KSZ, won a soldering aid with magnifying glass.

PROGRAM

Terry Rogers, WA4BVY, presented a very interesting program on "Antenna Tuners"

He explained what impedance is and how matching networks (tuners) work, what makes a good tuner and what makes a bad one. There were examples of real tuners brought in by Terry and other members.

Meeting adjourned.

Board Meeting Minutes

Durham FM Association (DFMA)

DFMA Board Meeting - 10/18/11 - KU4GC Secretary

Location: 2019 Front Street, Durham

Attending: Charlie, NC4CD; MK, W4MKR; Dee, KU4GC; Rhett, KE4HIH; Joanna, KE4QOZ; Bob, W4RWC; Ken, KI4QXJ; Wilson, W4BOH; Vic, K0OUX

President - Bob, W4RWC, called the meeting to order at 7:30pm.

REPORTS

Vice President - Wilson, W4BOH

November Program will be by Nick England, K4NYW who will present on the "Birth of the Internet - the Navy's Communications System of the 50's".

Treasurer - MK, W4MKR

Financial balances.

Current members: 86, 11 of whom have already signed up for 2012

Secretary - Dee, KU4GC

Minutes of the Club meeting of 10/4 were approved. (The minutes of the previous Board Meeting had been approved at the membership meeting.)

Repeater Manager - Charlie, NC4CD

The 147.225 repeater seems to be working OK. The 220 repeater has its problems fixed and has been put back on the air. Danny Hampton, K4ITL, will join Charlie on *The Hill* for final tweaking.

ARES

There was no official representation, but Dee, who had attended two recent meetings dealing with the Habitat Bike Ride reported on his (and MK's) experience. A meeting of the organizers of the Ride convened at the Durham Bulls Athletic Park (DBAP) on 10/11. Randy, K4XRM, MK, and Dee represented ARES/DFMA. Much of the meeting dealt with the actual ride logistics.

Randy offered APRS trackers in addition to communications support at rest stops and other key locations, especially Start/Finish at the DBAP. The group expressed appreciation for our participation.

At a subsequent ARES meeting on 10/13 at the Durham Red Cross, plans were made on how to get trackers and other equipment together and how to recruit more participants, specifically at the upcoming OCRA meeting which has many DFMA members attending as well as some potential OCRA-only folks. This was attended by K4XRM, W3QAHL, KK4PH, W4MKR, and KU4GC. It was agreed to have a final meeting before the event on Monday, 10/24. Steve also offered to post routing and other information on the Durham ARES Yahoo Group: DNC-ARES:

<http://groups.yahoo.com/group/DNC-ARES/files/>

OLD BUSINESS

Ken, KI4QXY, reported that **WinMor** is now working and is ready to install in the MCU. He is planning to work on documentation.

Rhett, KE4HIH, reported the the **2011 Hamnic** had been a great success with 25 attendees.

There is a **vacant board position**. Nominations are being sought. Several names were discussed.

NEW BUSINESS

+ In response to email sent to the DFMA via its web site by a Jim Price, Wilson, tried to find out more about an unused **tower on Jordan Lake**. Some preliminary email has produced little information. Wilson will follow up and Vic, K0OUX, planned to take a "field trip" to get a look at the tower and get its exact location, and possibly determine what, if any, antennas are mounted on the tower.

+ The Board unanimously approved that, as in the past few years, the Club will pay for the meals at the **December Holiday Dinner Meeting** (on 12/6).

+ Via email, Wayne, KJ4GDW, alerted the club to a very good deal on a **Optoma PRO250X projector** going for under \$300 (with a typical on-line price of \$450-550). Using Email between Board members, there was much positive discussion. Wilson who had informally advocated that the Club purchase a projector felt we should find a projector with a longer lens so that the projector can be on a tripod and shoot over the tables. He subsequently found that those tended to cost thousands of dollars. He hopes to find something with a long enough lens that will allow setting up with a small tripod on the tables, further from the screen than the one we've been using, for under \$500. If he finds a specific one that is attractive he will bring it up at a future

meeting. [As of this writing, the special deal found by Wayne is no longer available.] (Dee has been borrowing a projector from Duke Computer Science and hopes to continue to do so as long as it is needed.)

+ Dee and MK raised the question whether **auto-patch** on the DFMA repeaters still made sense. It is very seldom used and costs over \$800 a year for the two phone lines, one in Durham and one in Hillsborough. Charlie noted that the alarm systems for the cabinet at the VA and the shed in Hillsborough use those phone lines to alert him to any intrusions. Dee felt no action was necessary at this time but it is something to think about.

Meeting adjourned.

Upcoming Events (dfma.org for details)

- 10/29 7:30am Habitat Bike Ride, Durham
- 11/01 6pm DFMA Meeting, Bullocks BBQ
- 11/14 7:30pm VE Testing, Orange County EOC
- 11/20 8am JARSFest, Benson
- 12/06 6pm Holiday DFMA Meeting, Bullocks BBQ

Buy - Sell - Trade

WANTED: AM Transmitter

Looking for a 100 watt class "Hollow State" (vacuum tube) AM transmitter in working condition. Viking II, Apache, DX-100, etc. Mods OK but documentation would be appreciated. Thanks - Dick WA2ROC

Group Coax Buy

We can still get the LMR-400 equivalent for **50 cents/ft**, delivered, in 1000' quantities. *The price shown is retail, so don't faint.*

http://moonblinkwifi.com/pd_lmr400_type.cfm

I don't need any more, but if we can get an order for 1000' or more, I'm willing to handle it. Contact: Wilson - W4BOH infomet@embarqmail.com

73 - Dee, KU4GC, editor
 Send copy to ku4gc@amsat.org
 Deadline: one week before the Club Meeting

Web Page: **dfma.org**

2011 Habitat Bike Ride Course Overview

- 31 miles = yellow
- 62 miles = blue
- 100 miles = red
- Overlapping routes are shown as darker lines.
- All three courses share a common route from DBAP to Lebanon VFD

Official info at <http://durhamhabitat.org/volunteer/halloween-bike-ride.html>

