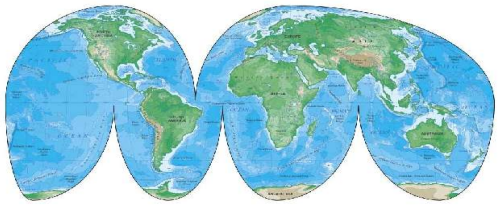
MOUNT VERNON

C  Q

AMATEUR RADIO CLUB March 2005

MEETINGS: SECOND MONDAY OF THE MONTH AT THE BIG BROTHERS OUTER LIMITS 7:00 PM
REPEATER FREQUENCYS: 146.790 (-) K8EEN 444.750(+) KC8YED
SPEED DIAL #S 7770=AAA (Howard St. Garage) 7771=Sheriff 7773=Police 7776=Highway Patrol
7778=MV Fire 7779=Report Repeater Problem # to shut off Auto Patch

Letter from the Editor

Here's a last minute note from Don, WA8YRS:

Ham Class Set for March 29, 2005

The next Mt. Vernon ARC sponsored Technician Class licensing course is set to begin on March 29, 2005 with a Demo and Sign-up night. Instructors for this course are Mike McCardel (KC8YLD), Zach McCardel (KC8YLE), Emily Bain (KC8YAE), and Don Russell (WA8YRS). There will be no charge for the course, however, students will need to purchase the latest copy of "Now You're Talking" published by the ARRL. These books will be available at the Demo night. The meeting place is yet to be determined and will be announced as soon a possible. The Morse Code will not be taught at this time. A separate Code Course will be developed to follow this initial no-code course.

This course is expected to last until May 21, 2005 with a test session here in Mt. Vernon on June 1, 2005. With any luck, we will have some new hams for Field Day!

Now is the time for Club members to get their relatives and friends into the wonderful world of Ham Radio. Keep an eye on the Mt. Vernon News, and possibly WMVO Radio for announcements of this course. For more information, contact Don Russell, WA8YRS at 740-397-0249, or wa8yrs@arrl.net.

Attendance **February 14, 2005** **Monthly Meeting**

Name	Call	E-mail (if not already on record)
1. Phillip Buble	N1GTZ	
2. James Chandler	KB8YAA	
3. Dick Huggins	WD8QHY	rdhsch@ezlinknet.com
4. Ruben Clark	KB2SAI	
5. Barry Butz	N8PPF	n8ppf@mvarc.net
6. Jeff Butz	N8SMT	n8smt@mvarc.net
7. Jerry Walker	KB8JAA	
8. Don Russell	WA8YRS	

Minutes **February 14, 2005** **Monthly Meeting**

Meeting called to order at 7:05 pm local time.
Treasury Report: None
Old News:
Issue 1: Repeater intermittent problem discussed. A coax problem is suspected. Particularly a barrel connector on the coax that runs from the antenna to the hard-line.

Issue 2: Skywarn training is next month. Remember to come in ½ hour early, training starts at 6:30.

Issue 3: Coordination of 440 repeater is pending FCC approval. This will be automatic assuming no complaints about overlap.

Issue 4: Fox Hunt! Details of the Fox Hunt were discussed. The month of May may be too early for the hunt itself but the general consensus was to build the required antennas during the May monthly meeting. Fox Hunt tentatively scheduled for June 4th .

New News:
Issue 1: Mike, KC8JEZ, is to keep doing trivia questions on the weekly net.

Issue 2: Message traffic handling practice tentatively scheduled for September.

Issue 3: Barry, N8PPF, and Don, WA8YRS, set up a Ham Radio demo for the Cub Scouts. It was for their Communication Badge and was very successful. So much so that plans are to start up a licensing course in March or April. (see note above - Ed.) It will cater to the Scouts (who will be Boy Scouts by then).

Issue 4: Winlink discussed. EC's want local clubs to begin setting up Winlink.

Issue 5: Newsletter. Online Newsletter delay discussed. In the future the Newsletter will be sent via e-mail to Barry and Ruben for conversion and up-loaded to the site by them.

Presentation: Don, WA8YRS, put on an excellent demonstration of some of the newer digital modes plus the wiring hook-ups that make them work.

50/50 drawing won by Mike, KC8JEZ, and donated by Mike to the repeater fund.

Meeting adjourned 8:00 pm local time.

REPEATERS AND STUFF

BY DON RUSSELL, WA8YRS

February was a fun and interesting month for me and ham radio. Of course the Mansfield Hamfest provided some long awaited entertainment. Lots of hams from Mt. Vernon and Knox County were there. Personally, I bought a few items worth mentioning. Number one deal was the Yaesu VX-1R for $50.00. When I got it home, I found a few problems with it. I knew going in that it did not have a rechargeable battery. It had the alkaline battery holder, which holds one AA battery and doubles the voltage to get your 3 volts to run the radio. This is a $29.00 value if bought new. It also had the 12 volt charger with the lighter socket plug on the end of it. Did not check the price of this, but I would say another $30 value. The regular wall charger did not work. I took it apart and found that the wire from the transformer was broke going to the AC plug. I have not fixed this

yet, but I think it is fixable. Not much wire left to play with though. This may turn out to be the bummer of the deal. However, I had never taken this charger apart before. It is actually a very nice regulated power supply. I feel pretty good about being able to replace the transformer if need be and getting it to work just fine. I do not really need this charger since I have the 12 volt charger that fits nicely into my Radio Shack power supply lighter socket. Thanks to Radio Shack for putting this feature on their power supplies. Next on the OOPS list was when I removed the battery, the brass plate fell off the door. Without the plate on the door, the radio would receive no power. Well, a little supper glue on the plate and door, and it works like new. No problem there. Next on the list was that the radio does not seem to save selected frequencies to memory as it should. This is a bit confusing, and maybe I am doing it wrong..... Although I do have my other VX-1R which I bought new and it works just fine. This is not a big problem because I was able to save the frequencies I wanted, and it works okay. Just a little weird. So, in my mind, I got about $60 worth of parts that I wanted for my other VX-1R anyway, plus another handheld that seems to work okay. I will take that deal!

I might even buy a new rechargeable battery for it eventually. However, I do have plans for this radio that will not require me to do so. I have been thinking for some time about a little emergency repeater that could be put to use without too much trouble. This repeater has to be built from radios I already have available and do not mind hanging onto in case the repeater need arises. The pieces I presently have for this repeater are:

1. Icom IC2-AT handheld for the repeater receiver. This is an older handheld and does not have PL. But, since the receiver only draws 15 milliamps during standby and maybe 75 milliamps during receive, it makes a easy load on a small battery of the garden tractor variety.

2. VX-1R handheld I just bought will act as the UHF link transmitter. Again, draws very little current, even in transmit at 50 milliwatts out. The IC2-AT and VX-1R should make nice companions for the repeaters receiver site. All I need to add is some control and audio circuitry.

3. Radio Shack PR0-38 hand held scanner or my other VX-1R will make up the UHF link receiver and will be at the transmitter site. This is an old scanner that I have had for a long time. It should have no problem hearing the 50 milliwatt signal from the repeater receive site.

4. IC2-AT handheld as the repeater transmitter. Oh, yes, I have two of these. The IC2-AT will put out about 1-1/2 watts. Running only 1-1/2 watt may seem limiting, but the battery will last a long time. With the antenna up 40 or 50 feet, 1 watt could be heard a long ways. I will be looking for a 20 watt amplifier to boost the signal when needed.

5. Two J-pole antennas (courtesy of KC8JEZ). One would be used at the receive site, one would be for the transmitter site. These can be tossed into the nearest trees to gain the height mentioned above.

Notice that I am talking receiver site and transmitter site. Why? Well one major problem of setting up an emergency repeater would be frequency selection. You never know what frequency you might need to use. A standard repeater would use one antenna with a duplexer allowing the receiver and transmitter to use the same antenna. If the repeater frequency needed to be changed (because there was a close by repeater on the same frequency), then the duplexer would have to be retuned. Retunning a duplexer is not easy, and requires specialized equipment. The idea of keeping the receiver and transmitter separate solves a lot of problems. No duplexer is needed so you can choose a frequency that will not cause interference or be interfered with. The radios will be far enough away that they will not interfere with each other. How far apart do they need to be? That is still open. I guess you move them apart as much as necessary. This is why I went with a UHF link rather than a wire link. I would say a couple of hundred feet would be reasonable. A split site repeater is not new. Back when repeaters were just getting started, many groups used split repeater sites because duplexer were expensive and interference between repeater receiver and transmitter was sometimes a major problem.

Modern equipment made specifically for repeater applications has solved most of these issues. While the price of new duplexers is still quite high, there is an abundance of duplexers on the used market.

An emergency repeater built as above would keep handhelds communicating with each other for farther distances. Mobiles could also get farther from the immediate area and still maintain communications.

Will this repeater become a reality? Don't know for sure. I am close to getting this thing done though. Mostly it is now building or buying control and audio circuitry. We will see what happens. It is a nice dream though.

Boy, did I get side tracked or what? Although the VX-1R was my find of the week, I did spend a little money on odds and ends. The new Book "Ham Radio for Dummies" was one I bought. Just to Find out how good it was. I was not disappointed. It is a very good book for those curious about ham radio, or just starting out. We finally joined the book for dummies crowd! This book is already on loan to someone I work with. I also bought 100 feet of RG-8X to use on the emergency repeater antennas.

Mike (KC8YLD) and I have been discussing the start up of our next Technician Class. Looks like it will be towards the end of March before this class begins. We still need to find a place to have these classes, and do a bit of advertising. Maybe this will be a good thing to talk about at our meeting.

Barry (N8PPF) and I are experimenting with a 6 meter repeater. It may be on the air as you read this. Since Barry is doing the majority of the work on this repeater, I will let him tell the story

Okay, now lets see if people actually read my stuff. I have an Alinco DR-140 2 meter mobile transceiver for sale. It puts out 50 watts on high power and 5 watts on low power. If you want to use it as a base, you will need a 10 amp, 12 volt power supply. This is my old mobile rig which was replaced by the dual bander I now use in the car. You know, new UHF repeater forces me to upgrade. It looks new and plays great. I was using it in the house for a while, But my FT-847 usually handles that job nicely. My price is $135 or I will trade for a 6 meter mobile transceiver of like value. Price is negotiable, especially if you are a new ham looking to get started. Reach me at 740-397-0249 or wa8yrs@arrl.net.

Okay, I gotta go. 6 meters is wide open!

That is it for this month. See you all at the meeting. Good hamming.

Vacuum Tube Daze

A tongue-in-cheek look at the days when tubes ruled.

By Phillip Buble, N1GTZ

Episode 8: I'm getting the bad vibrations.

Hams having fond memories of the vacuum tube days thankfully have forgotten car radios. One would turn them on and for the 12 seconds they took to warm up one would HOPE and pray they would work. They were notoriously unreliable. If you took a random sampling of cars with radios in 1956, the year I was born, likely 25% to 30% of them weren't working correctly. Shaking, rattling and rolling the "zinc plated vacuum tube culture" (thank you Spock) produced nothing but trouble.

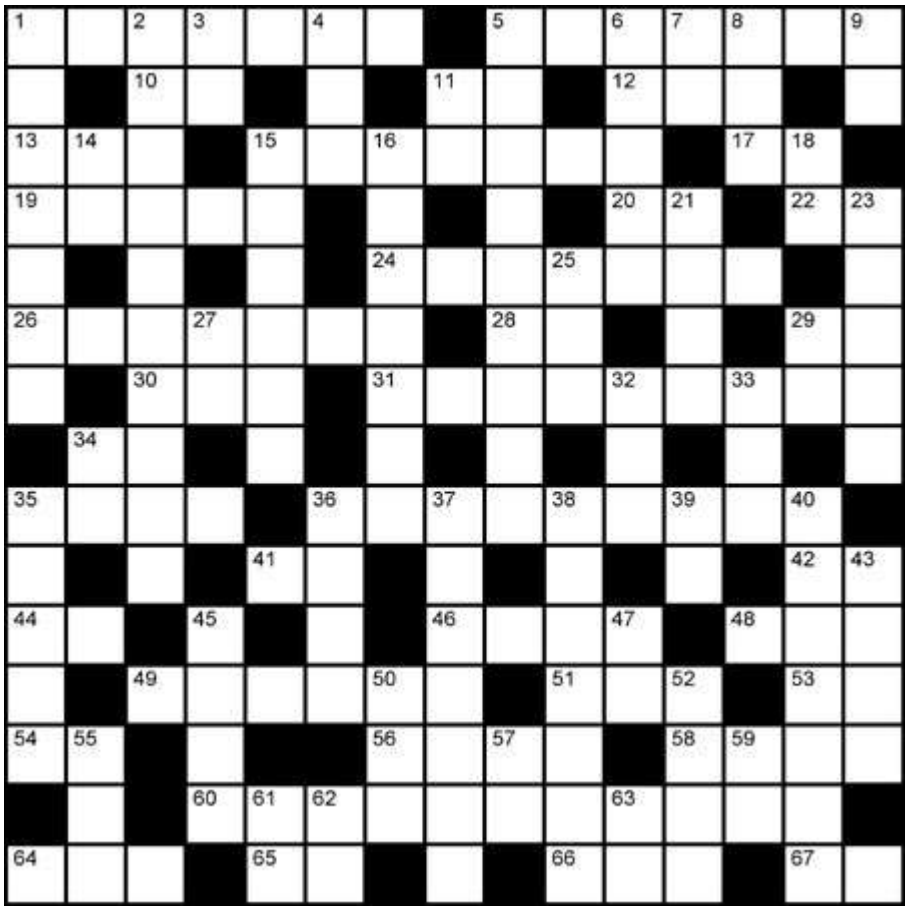
Most of the trouble lay in the power supply. Tubes required several hundred volts on their plates and in most cars this voltage was generated starting from a 6 or 12 volt DC source. Not a good idea. An attempt was made to use 12 volts directly on the plates of the tubes but this produced radios even worse off. The problem was how to transform a low DC voltage to a high one. Easy to do now but not then. One solution, long in use by 1956, was a mechanical vibrator to convert the battery voltage to AC which could then be easily bumped up to whatever voltage was required with an ordinary transformer. That vibrator loved to go south for the winter quite often.

The first use of transistors in our cars was to replace that vibrator, nothing else, the rest of the radio remaining tubes until the mid 60's. The Japanese must have gotten quite a laugh out of this, why do only part of the job they must have wondered. In the 50's and early 60's even when U.S. manufactures produced an all transistorized set it was based on a tube like chassis. Transistors sat in transistor sockets replacing tube sockets, the rest of the radio remaining nearly the same physical size as before. A total rethink was in order and the Japanese did it first.

Welcome the famous miniaturized Japanese transistor radio.

But that's another story.
The End.

Eclectic Electric #2



By H. Ward Silver, N0AX
January 29, 2005

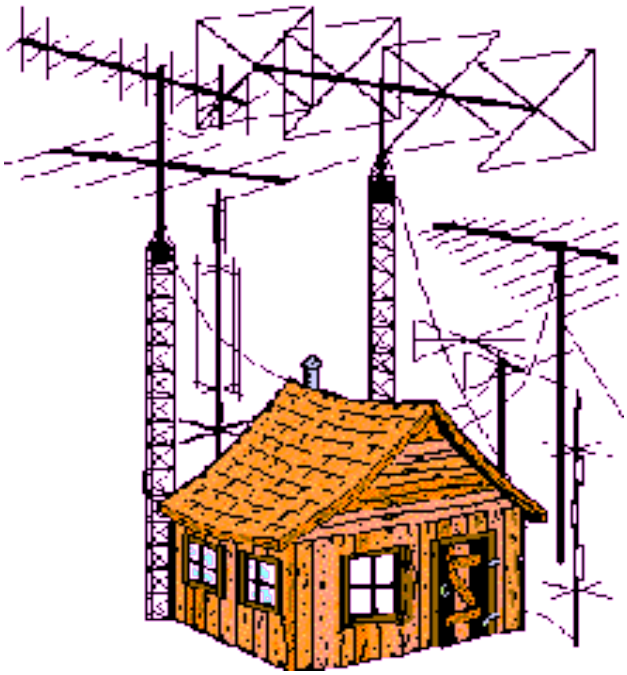
Across

Down

1. Tube element from which electrons flow
5. What a repairman does to your busted rig
10. England is a part of this (abbr.)
11. Engineer that signs tower plans (abbr.)
12. Organization that sets international standards (abbr.)
13. Inverted OR
15. Rope used to lift through a pulley
17. Soft metal used for antenna (Chemical symbol)
19. What a tight guy wire is
20. Multiply these to get power
22. Abbreviation for power from light
24. Tube with four elements
26. Control that cuts off noise
28. Open wide and say this
29. State with coldest temperature outside Alaska (abbr.)
30. The result of poor knife technique
31. Bliss
34. All right
35. Joules per coulomb
36. Resistance to ac current
41. Common propagation mode on 6-meters (abbr.)
42. Inductive reactance (abbr.)
44. Telephone (abbr.)
46. Current's relationship to voltage in an inductive circuit
48. The agency that approves towers over 200'
49. Maker of radios with the DJ model prefix
51. Business that provides Internet access (abbr.)
53. Greek letter than represents transconductance
54. What is!
56. Leave out
58. Wrong type of solder flux
60. What gets signals from here to there
64. Stop transmitting
65. Latter half of signal reports
66. Connection between computers (abbr.)
67. Simple (CW abbr.)

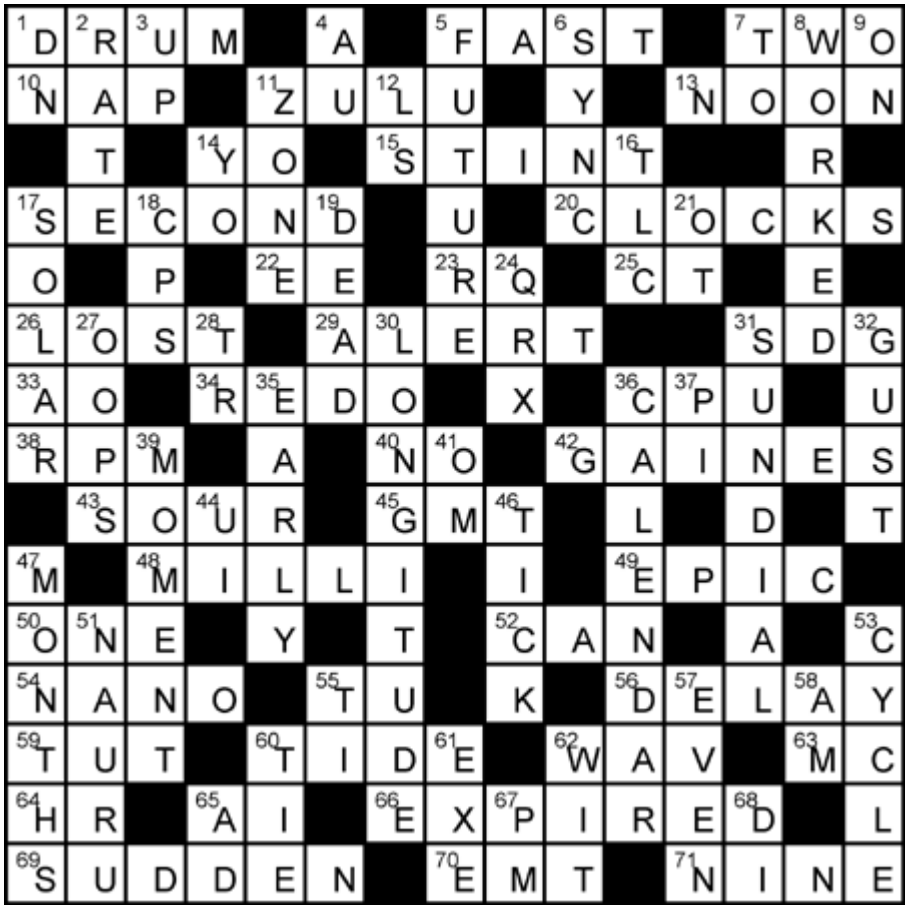
1. Competitive radio event
2. Tightens up guy wires
3. South American country closest to HP
4. A piece of gear that doesn't work when you unpack it (abbr.)
5. Imaginary resistance
6. Picture signal
7. Source current (abbr.)
8. Big shortwave station started in Ohio
9. Continent for Zones 9 through 13 (abbr.)
11. Host country for WRTC-2006 (prefix)
14. Northern neighbor to Slovenia (prefix)
15. ..... & welfare traffic
16. Lightest metal, used in batteries
18. Between QRP and QRO (abbr.)
21. A new thought
23. These grow up a tower
25. Greek letter that is the symbol for resistivity (not resistance)
27. Continent of Zones 14, 15, and 16
29. Net control (abbr.)
32. Another name for phono jack
33. Set of rules for electrical designs (abbr.)
34. An appointed station that observes operating (abbr.)
35. Authorized and current
36. Predecessor to DSL service (abbr.)
37. Best known maker of noise bridges
38. Signal consisting of bits
39. A micro-millimeter (abbr.)
40. Test or measure
43. Congratulate a winner
45. Snip
47. A contest or a stain-resistant metal (abbr.)
50. One who enforces
52. Caused by RF burns
55. Logic function denoting "either but not both"
57. Grid current (abbr.)
59. Makes a magnet with aluminum and nickel (chemical symbol)
61. First half of signal report
62. A long-time ham (CW abbr.)
63. The country also served at dinner (prefix)

Steve's shack, KC8YED !



Blast from the Past

Solution to last month's puzzle



A Pause For Thought

Dame Hickory, Dame Hickory,
Here's a wolf at your door,
His teeth grinning white,
And his tongue wagging sore!
"Nay," said Dame Hickory, "Ye False Faerie!"
But a wolf t'was indeed, and famished was he.

Walter de la Mare, *Dame Hickory*

Weather Spotting Training
Tuesday
March 22 2005 - 7:00 P.M.

Sponsored By:

Delaware County Emergency Management Agency
And
The National Weather Service Office, Wilmington, Ohio

Open For All Emergency Responders
And
The General Public

FREE

The Delaware County Emergency Management Agency is pleased to host the "2005 Weather Spotter" Training for all Emergency Responders and Residents of Delaware County. The training is being instructed by the National Weather Service Office in Wilmington, Ohio / National Oceanic and Atmospheric Administration (NOAA). This training will allow a person to be a registered Spotter with the National Weather Service.

Delaware Area Career Center (JVS)
Auditorium
1610 SR. 521, Delaware, Ohio

Delaware County Emergency Management Agency

OHIO SEVERE WEATHER AWARENESS WEEK

March 13th . Through 19th ., 2005

State Wide Tornado Drill 9:50 AM Wednesday March 16, 2005

Be Prepared For Any Emergency? Make A Disaster Supplies Kit For You And Your Family

For Further Details on how to make your disaster supply kit, Contact The Delaware County EMA Office 740-833-2180 or the Delaware County Chapter of the American Red Cross 740-362-2021 or 740-548-7300

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Membership Form

Club dues run from Jan. 1 until Dec. 31 and are collected during the last quarter of the year. You can mail in the dues to the address below or bring them to a meeting.

Dues Schedule:
$20 regular
$10 for second member in the same family
$10 for over 65 yrs. of age
$15 for those living outside Knox County

Mt. Vernon Amateur Radio Club
P.O. Box 372
Mt. Vernon, OH 43050

Name_____Call-Sign_____

Street_____

City_____State_____Zip Code_____

Phone Number_____License Class_____

ARRL Member (Y/N)_____E-Mail_____

Extra Donation (Optional)_____

Members are entitled to a free MVARC E-Mail address. Would you like one?
No_____Yes_____

If yes please enter password_____

Other Comments

Classifieds

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Yaesu FT-901-DM All Mode, SSB, AM, FM Transceiver 160 through 10M, use as stand alone fixed, mobile operation or exciter for linear amplifier and

Yaesu SP-901-P Combination matching speaker with built in phone patch.
$350.00

Dentron MLA-2500 Full 2KW Linear Amplifier all bands 160 through 10M. Factory installed 10M band came with original purchase just before FCC made it illegal to sell linear amplifiers in the US covering 10 meters.
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Matching Dentron 3000A all band combination antenna matching network and SWR Bridge with Dual Large Face Meters, 160 through10M. Rated for full 2KW SSB input.
$140.00

This equipment is fully operational, cosmetically like new, no modifications and includes all manuals. I am the original owner and purchased this equipment new.

Rhon 50ft Tower with commercial tower climbing safety belt. Good condition.
$50.00

Wilson 6 element triband beam (20, 15, 10M) in reasonably fair condition including a complete set of brand new element loading coils.
$30.00

Cornell Dublier model H-IV-CD-45 Controller and Heavy Duty Rotor with brake. Reasonably fair condition.
$30.00
If all equipment is purchased together I will sell for a reduced price.

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