The Minuteman

Volume 25 Issue 4 March 1996

A Little Bit of History - Part II

By

Steve Rudin, W1WSN

As mentioned in the last of my writings, the autopatch made its local appearance in the mid to late 1960's, giving amateurs mobile access to land-lines for public service. Because touch-tone (Registered Trade Mark) service, more properly designated DTMF, was a novelty, early autopatches used rotary dialing. In many cars, an entire trimline rotary phone was mounted on the hump, with a PTT switch added. A mini toggle switch turned on an audio oscillator, perhaps at 1000 Hz, and the PTT switch was pushed for one second and released. A dial tone was heard, and closing the PTT switch and dialing your number pulsed the audio tone which in turn keyed a dialing relay at the repeater. Another tone cancelled the patch.

Did it work? Yep... but it certainly was subject to noise and flutter. But it wasn't long before we got DTMF dialing (pads) in little boxes on the market. They were frequently pullouts from NET&T (before Nynex) service, and sold for anywhere from $5 to $10 per unit. Eventually, DTMF telephones were also becoming available, and radio magazines everywhere had schematics for hooking the things up to our radios.

The Marlboro repeater group had an autopatch, but thanks to W1PRI, the newly formed MMRA had a Waters Hybrid Coupler, with one of the best telephone patch units on the market (then and now. I still use one!). Some logic circuits, and... yep, 146.22-.82 had an autopatch. For public service reasons, of course.

Now the urge became irresistible. How did we EVER get along without autopatches? There are some of us who still remember a prominent attorney who ID'ed, called his wife on the autopatch from his HT, and said, "Honey...I ran out of toilet paper upstairs. Can you bring up a roll?" Oh, yeah... then there was a ham who called his wife and asked her to have one of the kids move his bike out of the driveway so that our homeward bound ham could pull into the garage. "Get out and move it yourself, you A.....E!" came the reply!! And this on a family repeater!

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Time's Passing, and a lot of you have not yet renewed your MMRA Membership....we need your continued support. Membership in the MMRA is your way of showing that you value Public Service, Emergency Communications and other important activities.

An APRS Primer

by

Bill Northup, N1QPR

APRS - "Automatic Packet Reporting System" - has been developed by Bob Bruninga, WB4APR over the last 17 + years. It is a real time packet radio system that supports distribution of varied types of information among APRS network stations. Bobs view is that packet radio has great potential but most use has been for passing large volumes of message traffic from point to point or to feed messages into a national distribution system. There was nothing that would handle interfacing to equipment that gathered information in real time for distribution on a network.

APRS was designed to avoid the complexity and limitations of connected networks. It will permit any number of stations to exchange data just like voice users would on a voice net. Any station that has information may contribute by simply sending it. There are many real time usages for this system. It contains a mapping system that uses scales from .5 miles out to 2000 miles. It can show the location of stations on the maps and track moving stations (known as trackers). Some of its features are:

- Maps .5 to 2000 miles
- Display positions
- Follow trackers
- DR for trackers using course and speed
- Display latest beacons
- "Stations heard" logging

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MARCH MEMBERSHIP MEETING

WEDNESDAY, MAR 20, 1996 - 1930 HRS

CAMPION CENTER, WESTON MA

PROGRAM:

Easter Island DX-pedition

Joe Rich, N1OCS

Raffle

A Little Bit of History.....Continued

(Continued from page 1)

Of course, life wouldn't be complete without the story of the group of hams who went to a crowded pizza joint after a meeting, dialed up the bartender, and ordered another pitcher of beer! You can imagine his expression when he was told to bring it to the guys waving at him from the corner table! I guess we could call examples one and three public service. But example number two just doesn't make it!

The FCC was deluged with requests for clarification of its rules concerning what constituted "business" versus "personal/public service" communications. They spent hours of debates on how to classify a "Honey, please pick up some bread and milk on the way home". Was it a call asking the ham to make a purchase and thus conduct business on the air, or was it an innocent call for help with a family problem? Then, too, how about reverse autopatch. Could a spouse dial the repeater phone number and have the repeater sound a ringing tone on the air? If he/she did NOT have a ticket?

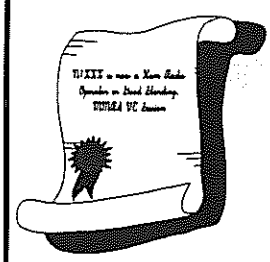
So, as you can see, the development of the autopatch brought with it a lot of fun and unanswered questions. But first and foremost, it was developed to aid the public... reporting accidents, requesting assistance, calling home for a distressed motorist, etc. We even developed protocols for what to say to a dispatcher when you called to report a problem.

Cellular phones are now in everyone's car and pocket, so there is less demand for autopatch use. But it still remains one of the most comforting features of MMRA repeaters, because membership allows us to never feel isolated, as long as we are within range of the MMRA system. Thought you'd be interested in "the REST of the story" (apologies to Paul Harvey).

Next installment: How we got our duplexer and expanded to some of our other locations.

73 — Steve, W1WSN

Editor's Note: Some of the issues Steve mentions have actually been resolved by the FCC in its new rules.... Calling an ordering a pizza is legal, because the use of the autopatch is not on behalf of the normal business of the patch user. While you can call to order one, a ham who works delivering pizzas could not use the patch to call a customer and tell him he was outside with his pepperoni pizza. We'll be looking forward to his next installment.



MMRA VE Sessions

2nd Saturday of Each Month
Marlboro Public Library, 9AM
Contact: Bill Wade, K1IJZ
617-891-9079 Evenings 6 to 10 PM,
Weekends 8 AM to 10 PM.
Accredited - ARRL VE Program

APRS Primer....continued

(Continued from page 1)

- Digipeater list
- Send messages
- Send bulletins
- Distribute weather station information
- Monitor DX clusters
- Determine grid squares
- Fox hunting
- Chess games.

A few months back the MMRA had Tom Kinahan, N1CPE, come to speak about APRS at our club meeting. That talk turned out to be a popular topic for many of the MMRA members because a number of us have been setting up APRS stations in our homes, cars, and trucks. We couldn't let someone else have all of the fun running around with a GPS and TNC in his car. We also wanted to see if APRS could help us with our fox hunting (it can).

While setting up my stations, both at home and in my truck, I had lots of questions about how to configure the many options available. There was a lot of documentation that came with the software (with the PC version — I don't speak MAC); there was almost **too** much of it. There were lots of facts like what various keystrokes do, but there wasn't anything like a cook book on how to get a simple station set up.

During a couple of recent MMRA Tuesday night Nets other people have asked the same questions that I did a few months ago, so I figured that if I wrote up what I have learned, it would be useful to others trying to set up APRS stations. I was able to get a lot of answers from Tom (he might regret that he left us his e-mail address) and from the APRSSIG on the Internet. With this article, I'll share some of the things that I have learned so far, playing with APRS. Everything here is based on my using the program "aprs74e" on a DOS-based PC. I am going to assume that you know the terms used with setting up a packet radio system like "TNC" and "baud rate", and have a working packet station. If you don't, there are many good books written on packet radio.

The first step is to get the APRS software. The software that is distributed on the Internet has been compressed into what is called a zip format. The file that I started with was called aprs74e.zip. You will need an "unzip" program to expand this into usable files. There are many internet sites where you can get PKZ204g.exe, a self decompressing file that contains PKUNZIP. When aprs74e.zip is expanded, subdirectories are created for DOC and maps and a file called aprs74e.exe. This last the APRS program itself.

When you start up APRS by typing "aprs74e" at a DOS prompt, the program will ask you a series of questions. The first thing that it will ask for is your call sign. You enter your call sign, then it will ask what com port your TNC is connected to. Mine is connected to com1 so I enter "1". You need to check your computer because many of the computers today have the mouse

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APRS Primer.....Continued

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connected to com1, so you will need to connect your TNC to com2. Next it wants to know what baud rate the TNC is using. I have mine set to 4800 baud so I enter "4800". Next the program asks what kind of TNC you are using. The first line has AEA, PICO, and TAPR. If you just press return you get a second line of Dual band TNC's KAM or AEA PK-900/223a or NONE. This is the first point that I got stuck at.

There are lots of people using the Kantronics KPC-3,which is not listed! I also have a KPC-3 and it took me a while to figure out what to do. The only other Kantronics TNC in the list was the KAM and I know it uses the same command set so I entered "K" for the KAM. This seems to work fine for the KPC-3. I have to be honest - I am using a KAM now, but more about that later.

Next the program asks you if your PC clock is set to Zulu or local time. Mine is set to local time, so I enter "L". Then it wants to know what time zone you are in. The time zones have number values that, when added to Zulu, will give you local time. We are on the East Coast using EST, which puts us 5 hours later than Zulu, so the value I entered is "-5". The last question in this section is to ask if you use any other com ports. I enter "no" for this. If you are using a weather station connected to APRS, or a GPS you would say "yes" here. I don't use any of these so I have never tried them. If you reach that point you can figure it out and let me know.

At this point the system will draw a nice picture of the USA and will start marking other stations that it hears. Since your location is not on the map yet, next we will walk through how to add yourself to the map.

There are two ways to put your self on the map. One is to know your Latitude and Longitude and enter it directly, and the other is to use your mouse or arrow keys to move the cursor to your QTH. When I first started I would move the cursor over Massachusetts on the map and press the PageDown key to zoom in. Every time you press the PageDown key you will zoom in closer, and every time you press PageUp you will zoom out. As you zoom in to the Boston area you will see a nice map of Eastern Ma. with 128, 495, the Mass Pike, Rt. 2, Rt. 3, and Rt. 95. With these you should be able to get the cursor close to your QTH. When you have the cursor on your QTH you press I (input) followed by M (My-Pos). The program will now display the latitude of the cursor. If this is correct just press enter, or you can enter your latitude if you know it. Next it will display the Longitude of the cursor. Again, if this is correct just press enter, or you can enter your Longitude. Now the program wants to know what symbol to use when showing you on the map. I chose B (building) followed by Q (QTH). This puts a house with an antenna as my symbol on the map. The program now wants to know your course and speed. Since my house doesn't move I just press return for both of these. Next it wants to know if you want to modify the comment that it sends. You can enter anything you want here. I enter "Bill - Acton Ma." so everyone will know who and where I am. Now it wants to know the day and time. If your computer date and time are correct you just hit the return key. Last it will ask you if everything is correct. If it is enter "Y", and you are done. If you enter no it will start this section all over again. Now you are up and running and can watch as new stations start showing up on the screen. You can now zoom in and out and just have fun watching the system.

The next question asked by most people is "...what is all this unproto stuff?" There are several features of packet radio TNC's that we need to look at. The first is how we send things. With packet radio there are two ways to send data, connected and unconnected. In connected mode the TNC will establish a connection to the TNC at the station that you want to send data to. When the TNC sends data it expects to get an acknowledgment back. If it doesn't get the acknowledgment it will resend the data until it gets an acknowledgment or until it reaches a predefined maximum number of retransmissions. In this mode only the station packets are directed to will capture them. In unconnected mode the TNC just sends the data and assumes that it is not directed to any specific station and doesn't expect to get an acknowledgment back. With this mode there are no retransmissions. APRS uses the unconnected mode so that everyone gets to see each others nodes. The data is broadcast and all of the nodes that hear it will get the data.

The second thing that we need to look at is **digipeating**. Most packet stations have the ability to work as a relay, or digital repeater. This is called digipeating. The TNC will receive and store a digital message in its memory and then resend the message when no one else is transmitting. What this does is allow the user to use one or more other stations to send his data. The way this works is that you send a message via other stations. There is a command that will allow you to set up how all unconnected messages are sent. Here are some examples of how I would send a message. The first message I just want to send is to APRS users that can hear my transmitter so I will use the unproto command to set the message path to APRS. The command is "unproto APRS". Next I want to send a message to someone who can't hear me but I know can hear N1TYG. to do this I would the command "unproto APRS via N1TYG. The last example will set a typical path that I use: "unproto APRS VIA WA1UIP,W1KRU,BARC, WIDE". This would cause 4 other stations to repeat my messages. Notice that stations can have an alias name that is not a callsign. This message would be repeated by WA1UIP if he hears it, then it will be repeated by W1KRU if he hears WA1UIP send it, and BARC will send it if he hears W1KRU and so on. Most TNC's will allow you to send a message via up to 8 digis. You should read the book that came with your TNC to learn more about unproto. Note that this only effects how things are repeated that you send. This does not effect what you hear - that can only be controlled by the station that sends it.

When you load the APRS software it will always start you off by setting your TNC to "unproto APRS VIA RELAY". It also will set up your TNC's alias (see MYALIAS command)to be RELAY.

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Items of Interest.....

Eastern Mass Section Managers Letter - Phil Temples, K9HI

Westwood Height Restriction Clarified

ARRL Volunteer Counsel Dick Bean, WV1U, of Westwood reports good news for Westwood hams: a town warrant that initially looked to be bad news for hams does not affect us. Bean sought clarification on the new warrant that amended previous language containing a standard "setback from property" clause. In other words, structures were allowed a maximum height based on the distance from the edge of the property line. The new language places a 35-foot ceiling on structure heights.

Bean received clarification from the Town's Planning Board administrator, who says this new amendment does not apply to towers because they are not "structures" like buildings.

Says WV1U: "It's a good thing, because the Town recently approved a new 120-foot tower for the fire department."

Thanks, WV1U.

Minuteman Repeater Association Flea 3/16/96

The Minuteman Repeater Association (MMRA) is holding its annual flea market on Saturday, March 16, 1996, at the Westboro High School, 90 West Main Street, in Westboro, MA. Talk-in will be on 146.61-, 224.70-, and 449.925- MHz repeaters. Admission will be $2.00, Doors open at 10:00 AM. A walk-in ARRL/VEC VE session starts at noon, courtesy of the Blackstone Valley ARC VE Team and W1YRC.

Seller information is available by contacting Andy, N1BHI, via e-mail:

mmra@mmra.org, World Wide Web: http://www.mmra.org/~mmra/mmrainfo.html, or by phone at: 508/489-2282, or at: PO Box 2282, Lexington, MA 02173.

Thanks, Walter Ching, N1HBR.

SKYWARN Activation for Winter Storm

Rob, KD1CY reports SKYWARN activation on the 145.49 repeater in Fall River area this past Saturday. M.L. Baron, KA1WBH, activated and NCSed the net, relaying reports to and from the National Weather Service in Taunton. NWS Taunton upgraded its snow advisory to a winter storm warning at around 1400 local time on Saturday, March 2.

The Weather Net's manager and lead spotter, KD1CY said, "I wish I could have been there manning the net but something much more important occurred...the net fired up [in my absence]. That's a tribute to the hard work of all those on the weather net."

Rob added, "It's been a tireless effort this winter. If the summer is even half as disastrous, this will probably be considered the year for weather "disasters" in southern New England."

BAA Marathon Ham Radio Publicity

Ham volunteers gearing up for the 100th anniversary of the BAA "Boston" Marathon received nice kudos in a page one article of the Framingham Middlesex News, February 26. Steve Tolf, K1ST, described the Hopkinton activities at the start of the race. Also interviewed was Bob Salow, WA1IDA, who is coordinating the ham efforts along most of the route. Salow said, "What we've done over the years is provide communications and logistical needs. We've become the front-line for emergency communication."

BAA Race Director Guy Morse was very complementary of the ham operations, saying, "We can't be everywhere at all times. These volunteers play a very important role in the management of the race." Morse added, "We rely on them and their services very heavily and we appreciate everything they do."

ARRL Letter Items

Hams Respond to WI Train Wreck Disaster

Ham radio operators stepped in to help after a freight train carrying liquid propane derailed early on the morning of March 4 in Weyauwega, Wisconsin. One tanker car exploded, and others caught on fire. As of March 8, six cars carrying liquid propane were burning. Authorities evacuated 1700 residents of the town, west of Appleton in Waupaca County, fearing another explosion. Fire officials say the fire could burn for several days, and residents weren't to be allowed back in until the fire burned itself out. Among those evacuated were residents of two nursing homes. "The Division of Emergency Government brought us in immediately," said Waupaca County EC Bob Krueger, N9BKF. He reported ARES volunteers from several counties were working in three shifts around the clock to provide Communication for emergency response personnel and for the American Red Cross, which set up two shelters in Waupaca. Krueger said the Amateur Radio network used a couple of 2-meter repeaters to support communication at the incident command post and the staging area back from the scene. He said ham radio was helping to relieve the burden on the public service communication system and would be available if telephone systems should fail. Hams also were providing health-and-welfare traffic. RACES volunteers were handling long-haul traffic from the scene on 75 meters to the state Division of Emergency Government and the Red Cross in Madison, the state capital. "We've got a lot of tired people," said Krueger, who's also RACES officer for Waupaca County.

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APRS Primer....continued

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Now whenever you send something anyone that hears you directly will relay your message. By using the "D" command in APRS you will be able to see how you hear all of the stations on your map. There will be an "*" at the start of the line if you hear them direct, or there will be an "*" after the name of the digi that you heard it from. The entry also shows you the unproto path that each station is using. If you sit and study this information you can figure out what stations hear each other direct. From that you can figure out what your unproto path should be to send your messages in what ever direction that you want.

This should be enough to get you started with APRS. When you get on the air you can figure out how to send messages and you can send your questions to me using APRS.

From what I have found is that most of the activity is on 2 and 30 meters. On 2 meters you can see who all the local stations are. On 30 meters stations will send messages VIA GATE.Gateway stations will take the 30 meter messages and resend them on 2 meters. With this you can see other stations that are all over the country. There is a long distance trucker that is using 30 meters so his family at home can see where is is all over the country. His call is W7LUS. He was in the Boston area around the 14th of Feb; you can usually find him between Texas, Georgia, and Florida. I now have my station setup to work on both 2 meters and 30 meters at the same time and can work as a gate if I want to, using my KAM+. There is a group in Florida that is trying to get a net set up on 40 meters as well. It is a lot fun....so jump in and join us on the APRS Network.

Items of Interest.....Continued

(Continued from page 4)

FCC Drops VEC Conflict of Interest Rules

The FCC has formally eliminated conflict-of-interest provisions that had applied to the administration of Amateur Radio exams. The action conforms Part 97 of the rules to the provisions of the Telecommunications Act of 1996, recently signed into law by President Clinton.

The Commission also eliminated a requirement that volunteer examiners and volunteer examiner coordinators maintain records of out-of-pocket expenses and annually certify those expenses to the FCC. The FCC notes that VEs and VECs still may recover actual out-of-pocket costs from examinees. The maximum reimbursement fee is $6.07 for 1996.

The FCC said the rules changes will eliminate "unnecessary regulatory burdens."

The former provisions precluded equipment manufacturers and their employees and anyone who prepares or distributes ham radio license study materials from administering Amateur Radio license examinations. The underlying purpose was to prevent an employee from favoring examinees who had purchased manuals or equipment produced or distributed by the VE or the VE's employer. The FCC has concluded that other rules provisions, combined with current Amateur Radio license examination procedures, will protect against potential abuses.

The FCC notice announcing the rules changes pointed out that Section 97.523 requires VECs to cooperate in maintaining a single question pool for each examination element. As a result, all exam materials and manuals must draw from the standard question pool, which is widely available to the public. Also, the FCC noted, each exam is administered by three VEs and coordinated by a VEC. The Commission said it would be highly unlikely for any examinee to be favored by a VE or VEC.

The FCC said the 12 years of experience with the VEC system has shown that breaches of trust by VECs and VEs can be dealt with swiftly and immediately by disaccrediting the offending VEs or rescinding the VEC agreement.

The FCC adopted the rules changes February 28, 1996. They become effective 30 days after publication in the Federal Register.

Florida Hams, FCC Clip Unlicensed Lawnmower Men

What started out sounding like intermod from a lawn service company on a Sarasota, Florida, Amateur Radio repeater (W4IE/R, 146.91 MHz) in mid-February turned into a three-week-long ordeal involving the FCC and a lot of legwork by the Sarasota Amateur Radio Association, the repeater's sponsor. The intermod turned out to be bootlegging, and club members logged and transcribed transmissions by several people using false call signs--including phone-patch calls.

After about a week, the FCC's Tampa, Florida, office was called in. Initially, the FCC was reluctant to deal with the problem, but after club officials called the FCC's Wireless telecommunications Bureau in Washington, D.C., the problem was handled quickly. By month's end, the field engineer-in-charge told the Sarasota hams who had done the tracking that they would

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Minuteman Articles — Solicitation

If you have ever built anything, fixed something, or have an experience that you want to share, then you should submit at article to the MMRA Minuteman. Contact Andy Morrison, N1BHI if you want to talk about it. We can scan artwork and schematics to make an article more interesting and useful. Give it a try!

Items of Interest....Continued

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be in the area that day.

On the afternoon of February 27, the FCC told the hams that they had established a "fingerprint" of the offenders' transmitter and--as a bonus--also had identified two other individuals who had been making rude noises on the repeater! In the joint effort that ensued, FCC field personnel and the Sarasota hams physically located and observed the perpetrators that same day. That evening, FCC personnel called at the home of the owner of the lawn service whose workers had been using the W4IE repeater. The FCC stated the owner was "very cooperative," and several radios and the employees involved were rounded up. Club members later learned that charges were filed against the lawn service and the involved employees.--KF4DMP, Sarasota Amateur Radio Association Amplifier

Editor's Note: *This is the kind of thing our Fox Hunting group is now capable of!*

Petitions and Telecommunications Act Behind Vanity Call Sign Delay

A lack of FCC action on four Petitions for Reconsideration and a flurry of activity to implement the provisions of the newly signed Telecommunications Act of 1996 are among the factors behind the Commission's recently announced delay in the Amateur Radio vanity call sign program. The FCC has said it would wait at least until mid-year to announce when it plans to open the first gate or gates of the long-awaited program. The FCC had been expected to announce opening dates early this year. The deadline to file comments has expired.

Still awaiting FCC action are Petitions for Reconsideration filed last fall by Charnelle H. Summers, W4IJE; David B. Popkin, W2CC; Robert Nelson, on behalf of the Hill Country Amateur Radio Club; and Christine M. Gill, on behalf of the Southern California Repeater and Remote Base Association.

In his petition, Summers asks the FCC to amend the vanity call sign rules to permit survivors of Extra Class licensees to get a late parent's call sign without having to upgrade, but only if the applicant has held an Advanced Class license for at least 25 years and the parent had been dead for more than two years. Summers would like to obtain W4AR, the call sign of his late father, who died in 1991. In its Memorandum and Order, the FCC granted a reconsideration request by Popkin to limit relatives to obtaining the call signs of deceased relatives that were of the same or lower operator class held by the applicant.

Popkin, in his latest petition, wants the FCC to fine tune the wording of the rules to make it clear that if no call signs on an applicant's list of choices is available, the FCC refund the fee and would not classify the original call sign vacated by the applicant as a vanity call sign requiring a fee for future renewals. He also asks that renewal applications be accepted on the license expiration date, not just prior to the date.

The Hill Country Amateur Radio Club of Kerrville, Texas, requests the FCC permit club stations issued licenses after March 24, 1995, to apply for the call sign of a deceased member under Gate 1A. The club's call sign, KC5OJZ, was issued May 5, 1995.

The Southern California Repeater and Remote Base Association petition asserts that in the process of revising the vanity call sign rules, the FCC "unintentionally introduced inequities."

The association cites the Commission's denial of an ARRL reconsideration request to limit an applications for a vanity call sign to those available in the applicant's call sign district. The association wants the commission to change the procedures for Gate 1 filings to allow for lacing a deceased family member's

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Give the MMRA World Wide Web Home Page a try..... let us know what you think.... any ideas are welcome. We are looking into things like an MMRA list server. We now have our own domain name - mmra.org. The Web Page keeps getting better.....

WWW Address:

http://www.mmra.org/~mmra/mmrainfo.html

Items of Interest....Continued

(Continued from page 6)

higher-grade call sign in "reserve" for two years to give an applicant time to upgrade. Both the SCRRBA and Summers expressed concerns that the FCC failed to provide a two-year "upgrade period" as the vanity call sign program commences.

FCC vanity call sign application Form 610V is now available, but the FCC will not accept completed forms until it opens the appropriate filing gates. Prospective applicants can get the FCC Form 610V package by writing ARRL, 225 Main St, Newington, CT 06111. Please include an sase. Form 610V also is available from the FCC via the Internet at:

http://www.fcc.gov/Forms/Form610V
or ftp://ftp.fcc.gov/pub/Forms/Form610V/,
or by fax at 202-418-0177.

Ask for Form 006108. The FCC's Forms Distribution Center also accepts orders for Form 610V at 800-418-3676.

The President's Corner

This month the column really is a corner....there was a lot of good material for this month's issue, so I'm going to keep this short.

By the time you get to read this, our fleamarket will probably already have taken place. I hope you made it out to Westboro and enjoyed it. More detail will be in the May issue.

We are experiencing trouble with '82; the antenna has apparently developed intermittent contact between co-axial co-linear sections. When that happens to a Stationmaster, it sounds the repeater sounds like someone digging around in a box of Wheaties. Serious de-sense comes with this phenomenon. We are going to replace the antenna as soon as weather permits and we can get a work crew together....we had a visit to the roof scheduled a few weeks ago, but one of out weekend weather systems grounded us.

Chris, N1NVL, plans to try a different receiver up in Stoneham. Bill Thorpe has re-worked a receiver, and as soon as they can hook up, Chris is going to install it. With any luck, the overall sensitivity of '715 will improve.

Note the excerpt from Strato-Beacon News....I'll bet that some of our Fox Hunters will want to get in on the fun....chasing a balloon package falling beneath a parachute ought to be an amusing and challenging exercise. We'll look forward to hearing more about it....maybe we'll be able to get Phil Metcalf for a meeting presentation.

Keep your ears peeled for news about work parties at the sites this spring. Antenna work, site cleanup and other things on the list will take a few people to make it easier and more fun. You'll hear about it, and we hope that you will join in and give us a hand.

If you are a member from last year who hasn't renewed yet, please do so....we need all the support we can get. If you do not have time to work on stuff, your dues keep the system going!

Fleaspeak - the Vernacular of Fleamarkets.

Submitted by Bob Levine, KD1GG

The fleaspeak sentence is followed by its translation.

This rig puts out a BIG signal — It's 50 kHz wide
This is a really good CW rig. — It doesn't work on SSB.
This is a really good SSB rig. — It doesn't work on CW.
This is a really good rig. — It doesn't work on CW or SSB.
The transmitter is outstanding. — It doesn't receive.
The receiver is really hot. — It doesn't transmit.
This rig is really hot. — It's stolen.
It seems to be a vintage regenerative type. — It oscillates.
I just retubed it.— Got 'em from questionable used tube stock.
I just aligned it.— The slugs on the transformers are jammed
I don't know if it works. — it doesn't work, probably never has.
It doesn't chirp. — it doesn't chirp because it doesn't transmit.
The audio sounds great. — The 120Hz buzz is faithfully reproduced.
I just had it serviced. — I sprayed WD-40 over all the wiring.
It comes with the original box. — Just brush out the kitty litter.
Better buy it now, cause it won't last. — no translation needed.
Sure, it works at full power. — It sucks all it can from the wall.
This rig has wide frequency coverage. — It drifts up and down and out of band.
Frequency stability is great. — The VFO doesn't work - you'll have to use crystals.
Real popular rig in its day. — There were whole HF nets on the repair and maintenance problems.
QST gave this one a really great review. — The language broke new ground for profanity.
It might need a bit of tweaking. — Marconi himself couldn't fix it, much less align it.
It was used in government service. — It was stored outdoors on a wooden pallet.
The dial drive may need lubricating. — the gears are stripped and the setscrews frozen.

(Continued on page 8)

Strato-Beacon 1Preparations Get Off the Ground

Up, Up and Away SB1

Strato-Beacon 1 is an amateur radio carrying weather balloon which is intended to soar to an altitude of over 80,000 feet and allow it's onboard 2 and 10 meter transmitters to broadcast a call sign and tracking beacon throughout it's entire flight. An onboard 6 meter receiver will allow the team to control required onboard systems. The balloon will be tracked by HAM volunteers and others as it ascends to peak altitude and will hopefully be recovered unharmed after the on-board parachute guides it to a soft landing. Launch of the vehicle will be governed by the weather, of course, and the upper level winds will have to be closely monitored up to within moments prior to launch. The launch site has yet to be determined but a few locations are being reviewed for compatibility. Future launches are planned.

Recruitment - Getting Going

The Strato-Beacon 1 program has been brought on-line and is moving at full steam ahead. It is my hope that there will be an increased interest as we progress with the planning and design stages of the project. A program of this type is not especially difficult but requires considerable teamwork to achieve success.

I am extending this invitation to all of you. If you enjoy the outdoors and have had an interest in near space or transmitter hunting, then this event may fill the void.

There is currently a need for help in all areas of the program. RDFers most of all.

Please Contact:

Phil Metcalf - KA1NHZ
Tel: 508 754 4071 or email me at:
pmetcalf@xyplex.com

If I am not in, leave a message and I will return the call as soon as possible.

Projects: First Things First

The following is a list of items that I would like to accomplish to kick off the balloon launch project. Note: dates are only approximates.

1. Set up a meeting of interested participants and organize the specialty teams - by 2/28/96
2. Complete 2 and 10 meter transmitters - by 4/1/96
3. Finish programming the call-eprom and test - by 4/15/96
4. Make up tracking map booklets for search parties - by 5/1/96
5. Set up first meeting of launch and tracking crews to discuss ideas and concerns - by 5/10/96

The above was excerpted from the "Strato-Beacon News", a newsletter devoted to the project. Our own Clark Conti, N1NVK, is participating; he's putting a camera aboard the vehicle, in hopes of getting some neat photos. If he does, you'll see them here! If this stuff interests you, get in touch with Phil — it ought to be a lot of fun.

Fleaspeak....Continued

(Continued from page 7)

I plugged it in to check that it lights up. — The light came from the two foot high flames.

I'm selling it because I have two of them. — I'm getting rid of my parts radio.

You won't find one at a better price. — Better from the point of view of the seller.

This is a collector's item. — the manufacturer just went belly up and won't honor the warranty.

It came from an estate sale. — If you have any problem take it up with the owner.

I had it on the air just last night. — And you thought the woodpecker was gone.

It worked last time I used it. — if it still worked I'd still be using it.

The only lightning damage was a fuse. — The only lightning damage I recognized was a fuse.

I have the [...] somewhere. I'll send it to you. — you'll never see the [...].

I'll help you carry it to the car. — I'll do anything to unload this boat anchor.

It works ok on 80 meters. — It had some parasitics but I got in and really screwed it up and now I want to unload it.

The tubes used by this rig are worth the asking price. — The rig uses a rare 7360 beam deflection tube for a balanced modulator, but it's blown and you'll spend 80 to get a new one.

This is the rig of my dreams. I really wanted one of these as a kid, but now <snif> I've got to let it go. — As I've gotten older, I've learned what a hunka junk it is.

The signal quality of this rig was easily recognizable in its day. — The high distortion and bad audio quickly identified this rig.

I'd keep this baby, but my wife is making me clean everything out. — I finally got around to giving this thing the proverbial heaveho.

There are a couple of other people interested in it. — someone sat on it to tie his shoelaces while walking past the table.

You'd better buy it now, because I'm leaving soon. — The previous buyer and his brother, Guido, are heading back toward the table and they aren't smiling.

How many of you heard and experienced some of these at our flea market? Thanks to Bob for his contribution.

Minuteman Repeater Association, Inc.
P. O. Box 2282
Lexington, MA 02173
Voice Mailbox: (508) 489-2282

A Non-Profit Communications Organization Serving the Public in Time of Emergency.

-Application for Membership-

☐ *New* or ☐ *Renewal*
☐ *Individual Membership (Dues $25 per year)* ☐ *Family Membership (Dues: $35 per year)*
☐ *Novice Membership (1st year dues: $10)*

I hereby apply for Membership in the MINUTEMAN REPEATER ASSOCIATION, INC. I agree to abide by the rules and regulations of the Association as stated in the by-laws, and understand that acceptance of this application entitles me to all rights and privileges of membership as provided under the by-laws.

Signature: _____ Date:_____

Name: _____ Callsign:_____ Class of License:_____

Home Address: _____
_____
E-Mail Address: _____
Occupation: _____ Employer: _____
Work Phone#: _____ Home Phone: _____

Member of: ARRL?_____Other Clubs?_____

Equipment Available for Your Use:

Type	No.	Mobile	Port.	Fixed	DTMF	FM	SSB	Packet	CW	Patch	Rtty
HF	_____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
VHF	_____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
UHF	_____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

I can and am willing to assist/serve the Association and/or help maintain the Repeaters in the following ways (check all appropriate boxes)

☐ Antennas
☐ Flea Market
☐ Receiver
☐ Publicity
☐ Transmitters
☐ Newsletter
☐ Logic
☐ Public Service
☐ Telephone
☐ Legal Aid
☐ Education:
☐ Technical Documentation
☐ Shelters
☐ Medical Aid
☐ Equipment Construction
☐ Meeting Set-up
☐ Equipment Transportation
☐ Social Events
☐ Technical Documentation
☐ Refreshment
☐ Schematic Drawing
☐ Technical Library
☐ Teach Code
☐ Teach Theory
☐ Repeater Tech Committee
☐ Special Projects
☐ Repeater Control Operator
☐ Association Officer
☐ Board of Directors
☐ Field Day
☐ Emergency Communications
☐ CW Operation
Other-Specify:_____

Send this form with your
Dues to: MMRA, PO Box 2282, Lexington, MA 02173

MMRA Information - Repeaters, Officers and Board Members

MMRA Repeaters:

Marlboro	146.61	N1BHI/R	FTL	P	
Marlboro	449.925	N1HBR/R	FTL	P	PL - 88.5 out, none in
Quincy	146.67	KA1HKP/R	PTL	P	
Quincy	224.40	N1KUG/R	FTL	L	PL - 103.5 in, none out
Weston	146.82	KA1AL/R	PTL	P	PL - 146.2 out, none in
Weston	224.70	N1HBR/R	FTL	L	
Hopkinton	223.94	N1BHI/R	FTL	L	PL - 103.5 in and out
Stoneham	146.715	N1NVL/R	PTL	P	PL - 146.2 out, none in.
Stoneham	446.725	N1NVK/R	PTL	L	PL - 88.5 in, none out
Taunton	449.575	N1NVL/R	FTL	L	PL - 88.5 in, none out

[FTL = Full Time Linked PTL = Part Time Linked]
[L = Patch available via link] P = Local Autopatch]

MMRA Officers:

President:	Andy Morrison, N1BHI
Vice President:	Clark Conti, N1NVK
Secretary:	David Croll, KT1X
Treasurer:	Ian MacLennon, AF1R
Clerk:	Ed Mulhern, N1NOM
Directors:	Tom Qualtieri, WB1GMA
	Al Kunian, KA1AL
	Chris Conti, N1NVL
	Bob Feltmate, WA1ZJE
Newsletter Editor:	Andy Morrison, N1BHI

To Contact Officers or Board Members Call MMRA Voice Mail Line:

508 - 489 - 2282
Toll Free from 508 and 617 Areas

MMRA E-Mail
mmra@mmra.org

1994-1995 Members

If you have not renewed your membership, Please do so....

You are a valued resource to the MMRA.

A lot will be happening this year, and we will need your support.

Important MMRA Club Information:

Membership Meetings: 3rd Wed of Sept, Nov, Jan, Mar, May at Campion Center, Weston at 7:30 PM
Meeting Dates for 1995-96 Season: September 20, November 15, January 17, March 20, & May 15.

Board Meetings: 3rd Wed of Oct, Dec, Feb, Apr. Meetings are open and members are welcome.
If a visiting member wants to be on the agenda, please contact Andy Morrison beforehand.

MMRA Voice Mailbox (508) 489-2282. -- This is a local call from any 508 exchange phone, and is a free call from both 617 and 508 areas.

Newsletter Information	September issue	November issue	January Issue	March Issue	May issue
Mailing Date	Sept 14, 1995!	Nov 9, 1995	Jan 11, 1996	Mar 8, 1996	May 10, 1996
Submission Deadline	Sept 1, 1995	Oct 26, 1995	Dec 28, 1995	Feb 22, 1996	Apr 26, 1996

The MMRA is dedicated to Amateur Radio and the public service. The MMRA is a registered non-profit Massachusetts corporation. Membership is open to all amateurs. Annual dues are $25.00 individual, $35.00 family.

Mail Return Address:

MMRA
P.O. Box 2282
Lexington, MA 02173

TO: