



SPECTRUM



The Voice of the Humble Electron

Founded 1962

PRESIDENT'S MESSAGE: This is **The Bruce N1IX** – Seven (7) Whitman club members, along with **Bill Hayden N1FRE** and **Gloria Chiaramonte KB1OAV** – shown here - participated in the outdoor Winterfest activities in the Town of Whitman. Other Whitman Club members reported that they participated in the City of Taunton Christmas parade activities. In December, seven (7) Whitman club members participated in monthly **RADIOGRAM** training at the Taunton Emergency Operations Center. Have you been radioactive and are you having fun yet ??



Bill N1FRE & Gloria KB1OAV

We have eight (8) new members this month and lots of new faces at the meetings. Come to the next meeting, where you can meet some of the new members, and share your radioactive adventures with the members present - or better yet – if you have been good – bring in the radio related goodies you received from Santa for show and tell. Until then – I wish you a Joyous Holiday Season, and above all, a Healthy and Happy New Year.

MEET THE NEW MEMBERS



**Alice Carlson
KB1OAU**
of Bridgewater



**Ray Bolduc
KB1ODU**
of Abington



**Mike Supple
KB1OEP**
of Whitman



**Ron Stundze
KB1OEQ**
of Whitman

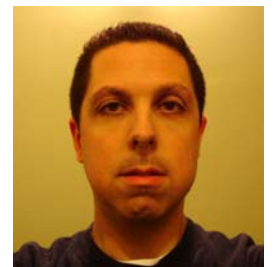


**John Chase
KB1ODS**
of Pembroke



**Richard Petersen
KB1OEU**
of Whitman

Sam Vernon KB1O EJ
of Roslindale



**Josh MacNeil
KB1ODT**
of Whitman

SECRETARY'S NOTES OF THE MEETING OF DECEMBER 6, 2006 de KB1CYV

OPENING: The members started gathering at the Whitman Public Library, Whitman, MA around 6:15 p.m. **President Bruce NI1X** opened the meeting with a roll call at 6:30 p.m.

ATTENDANCE: Twenty-two members / guests were present, including all elected Officers and Directors. A quorum was present.

N1ZZN	Jeff Lehmann	N1VTI	Paul Burbine	KB1CYV	Roy Logan
KB1ODU	Ray Bolduc	KB1OAY	Dan Noyes	KB1OAW	Greg Noyes
KB1OEQ	Ron Stundze	K1WGU	Bob Bass	KA1PJX	Don Keene
KC1FZ	George Davis	KB1ETW	Jim Halpin	KB1MJL	Al Marshall
N1WIG	Sam Webber	KB1OEP	Mike Supple	N1OIU	Jim Wolf
KB1MOC	Kevin Dykes	KB1BTS	Priscilla Imhoff	N1SOM	Jeff Tracy
NI1X	Bruce Hayden	N1FRE	Bill Hayden	K1XRB	Peter George
N1NTZ	Ed Meehan				

TREASURER'S REPORT: The treasurer's report for November was read by **Jeff N1SOM**. **Jeff N1ZZN** made a motion seconded by **Paul N1VTI** that the treasurer's report be accepted as read. The motion was approved

SECRETARY'S REPORT: A motion was made by **Bruce NI1X** seconded by **Paul N1VTI** that the secretary's report be accepted as published in the November newsletter. The motion was approved.

HEALTH & WELFARE: **Bruce NI1X** received a report from **Vic N1OEH** that **Bernie N1OQW** has been in and out of the hospital several times but appears to be on the road to recovery.

OLD BUSINESS: **Bruce NI1X** and **Bill N1FRE** discussed the Plimoth Plantation Special Event, which was a huge success with many new HAMS participating. There have been over 40 QSL requests for certificates to date. **Bruce NI1X** volunteered to be QSL manager for the Special Event. **George KC1FZ** remarked on the exceptional newsletter based on the event.

NEW BUSINESS: **Bruce NI1X** made a motion to allocate \$100 for the purchase of additional club patches, seconded by **Bill N1FRE**. Following **Bill's N1FRE** assessment of the club repeater situation **Bruce NI1X** made a motion seconded by **Paul N1VTI** to allocate \$100 for professional evaluation. **Bob K1WGU** reported on a good anti-virus program he is using. Search on GRISOFT for details.

CLUB ANTENNA ANALYZER LOCATION: **Bruce NI1X / Club House**

NEW MEMBERS: **Bill N1FRE** made a motion seconded by **Bob K1WGU** that **KB1OAU Alice Carlson**, **KB1OAJ Sam Vernon**, **KB1ODS John Chase**, **KB1OEU Richard Petersen**, **KB1OEQ Ron Stundze**, **KB1ODT Josh MacNeil** and **KB1OEP Mike Supple** be accepted as one-year dues-free members. **Bruce NI1X** made a motion seconded by **Bob K1WGU** that **KB1ODU Ray Bolduc** be accepted as a new member. Both motions were approved. Welcome to the WARC and to the hobby!

TECHNICAL TOPICS: **Bill N1FRE** made a presentation on a Slinky antenna he constructed, accompanied by a handout with instructions for making this inexpensive HF antenna. **Paul N1VTI** conducted an auction of items donated by **Alan Craddock WA1ZKK** of Bridgewater. Some great bargains were realized.

SECRETARY'S NOTES OF THE MEETING OF DECEMBER 6, 2006 de KB1CYV Cont:

NET CONTROLS: 12/3 Roy KB1CYV 12/10 Bill N1FRE 12/17 Jeff N1SOM
 12/24 Bruce N1X 12/31 Jeff NISOM

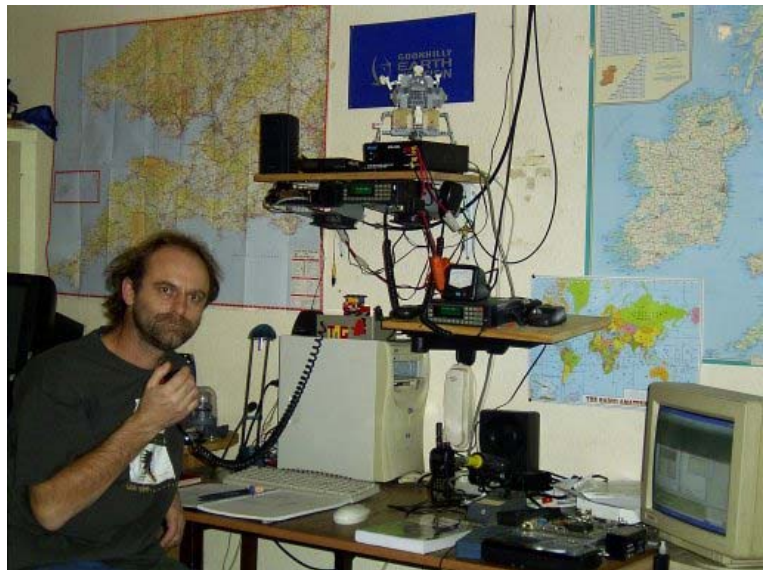
CLOSE: President Bruce N1X closed the meeting at 7:45 p.m. following a motion by Paul N1VTI seconded by Ed N1NTZ.

PROMOTING INTERNATIONAL GOODWILL



The Bruce N1X
In Plymouth, Massachusetts

The Bruce N1X in Plymouth, Massachusetts is shown talking with Mike Tunney M0TOA in Taunton, England via Ray Wall's N1KXJ-L Echolink connection to the Bridgewater REPEATER while the Whitman Club was operating from historic Plimoth Plantation.



Mike M0TOA
in Taunton, England

The Taunton, England Amateur Radio Club had been contacted by the Taunton Area Communication Group (TACGroup) by E-mail. Mike Tunney M0TOA, who is a member of the Taunton, England Club decided to give a call on the Bridgewater REPEATER, via Echolink, about a month ago, looking for HAMS from the City of Taunton and The Bruce N1X happened to be monitoring and answered. Several conversations later, The Bruce N1X made a schedule with Mike M0TOA and the Taunton, England Amateur Radio Club G3XZW to make contact with WA1NPO while we were operating from historic Plimoth Plantation – and as they say - the rest is history.

WHITMAN AMATEUR RADIO PUBLIC SERVICE NET (WARPSN)

The WARPSN NET meets every Sunday morning at 8:30 a.m. on the Whitman REPEATER 147.225 MHz PL 67. Come join in and share your amateur radio related activities with the other area HAMS and short-wave listeners as well.

As part of our training, we encourage everyone to practice sending routine RADIOGRAM messages. In November we had four (4) sessions with an average of 10 area HAMS checking in each week and 9 messages were sent.



Checking in
with WA1NPO

RADIOGRAM TRAINING -- FIRST MONDAY OF THE MONTH



THE TAUNTON RACES VOLUNTEERS AND TECHNICIAN CLASS STUDENTS

Carlos's WP4US students are being broken in right and are shown with the Taunton RACES volunteers just after the December RADIOGRAM training session at the Taunton Emergency Operations Center. Seen standing L. to R. are **Don Burke KB1LXH**, **Peter Ferreira KB1LXG** – The Assistant Director of the Taunton Emergency Management Agency – **Win Richardson SWL**, **Greg Glynn KB1NLX**, **Dick Sproul KB1MBW**, **Bob Barbour K1BAR**, **Tony Pinheiro SWL**, **Neal Harrington KB1LXL** and **Bruce Hayden NI1X**. Shown seated L. to R. are **Wayne Stone SWL**, **Carlos Wharton WP4US** and **Brandon Hoderny SWL**. Seven (7) are Whitman Club members.

In December **John Miller N1UMJ** sent three RADIOGRAM messages to the local Emergency Management Agency Directors from the MEMA Region II Headquarters located at the Bridgewater State Prison Bunker facilities. The next RADIOGRAM training session will be on Monday January 8th. Listen in at 7:30 p.m. on the Taunton REPEATER 147.135 MHz PL 67 or at 8:00 p.m. on the Norwell REPEATER 145.250 MHz PL 77 and copy the messages from home. Even better – come to the Whitman or Taunton Emergency Operations Center (EOC) where all are invited to join in and copy the three or four RADIOGRAM messages in a classroom setting – no pressure.

SCUTTLEBUTT

The Bruce NI1X installed a 2-Meter / 440 MHz / 6-Meter antenna at his home QTH and made his first 6-Meter contact with **Jeff N1ZZN** via the **KC1HO** REPEATER in Norwell.

Ray Bolduc KB1ODU reports that he picked up a YAESU FT-1802M 2-Meter transceiver and is using it for both mobile and home Base Station use.

John Chase KB1ODS reports that he has just passed the General Class written test and is studying the Morse code. Please note : The FCC just adopted an (ORDER) eliminating the Morse code requirement for General and Extra Class licenses but have not set an effective date yet.

PACKET RADIO STATION FOR SALE

Paul Burbine N1VTI has a working PACKET radio station that he is interested in selling. You are invited to visit his HAM shack and see it in operation before it is dismantled. **Paul N1VTI** is asking \$200.00 firm. **Paul N1VTI** can be reached at Tel: 508-588-3216 or E-mail at n1vti@comcast.net

The PACKET station consists of the following:

Kamtronics Packet Communicator 3

Compact Presario Computer 5240 with Monitor 1725

ICOM IC_28H 2-Meter Transceiver

Astron Power Supply RS7A

MFJ Microphone / TNC switch 1272YV

Choice of antennas: Larson mag. mount – a 2-Meter Ringo Ranger – or a 2-Meter J-Pole

Software: Windows 98 – Microsoft Office – Winpacket V6.1 and much, much more.

PLIMOTH PLANTATION FOLLOW-UP ARTICLE IN THE ENTERPRISE

The Plimoth Plantation Special Event was a great success. See the Plimoth Plantation Special Issue at www.wa1npo.org

As you can see in the Enterprise article, the Enterprise Editor cut the press release down quite a bit and left **Jeff Tracy's N1SOM** name off the list.

CORRECTION: In the Plimoth Plantation Special Issue newsletter, **Greg Glynn's KB1NLX** name was inadvertently left off the list of club members who were not able to participate at the Plimoth Plantation but who were able to log in with **WA1NPO** via amateur radio.

QSL MANAGER'S REPORT: The **Bruce NI1X** has finished mailing out the club members certificates and has started answering the non-member QSL card requests. The Whitman club has received 50 non-member QSL card requests to date.

PACKET UPDATE: **Phil McNamara N1XTB** reports that the packet antenna in Brockton (the BROCK node) was replaced to fix a high SWR problem with a dual band 2-Meter / 440 MHz antenna that can be used for future development of a gateway link to equipment located at his home QTH.

A2 The Enterprise—Tuesday, Dec. 12, 2006

Can ye hear me now?

HOLIDAY HAMS: We hear the Whitman Amateur Radio Club conducted a special broadcast from Plimoth Plantation last month. Thirty ham radio operators set up three base stations and antennas and contacted 243 other operators in 35 states and 6 countries, in each case describing what was happening at the living history museum of the 17th century. Kids who visited during the event were taught to send their names in Morse code and adults were also encouraged to send messages. Ham radio participants included **Dave Gurney, Ken Kavaljian, Ray Bolduc, Bill Tracy, Ron Smith, Roy Logan, Pete Carlson, Gary Cumiskey, Paul Burbine, Jeff Lehmann, George Davis, John Coombs, Jim O'Rourke, Jim Halpin, Don Keene, Neil Harrington, Dan Noyes, Greg Noyes, Bob Bass, Bruce Hayden, Sam Webber, Dave Souza, John Miller, Rudy Burer, Dan Burke, Al Dollett**

Jr., Bill Hayden, Ron Standze and Paul Moss. ...

TECHNICAL TOPICS - A HOMEMADE ANTENNA AND MAST - By: AI Molin N1JXS

The J-Pole antenna I built is based on one by Jaden that I found on the internet at:

<http://www.alpharubicon.com/elect/jpolejaden.htm>

The base is constructed of four white oak boards (2"x8"x48") in the shape of a long box. I dug a hole three feet deep, put in 3" of crushed stone and dropped the box into the hole. The cavity of the box is filled with crushed stone to ground level. Approximately 18" of the box is above ground on three sides and one side stops at ground level to allow the mast to be rotated down for maintenance. The mast is a cedar tree trunk I cut down in my yard and planed off the rough spots. It is 5" in diameter at the base and tapers to 2" at the top. The height is 18 feet. A 1/2" inch steel rod serves as an axle and two 10" carriage bolts hold it in place in the box.



The J-Pole is just shy of 5 feet and I mounted it to a four-foot length of 1" PVC pipe with hose clamps. To give the PVC pipe more rigidity, I planed down an old broom handle and inserted it into the PVC pipe. The top is capped to prevent rain from getting in the pipe. This brought the top of the J-Pole to around 23 feet. The PVC pipe is held to the mast with hose clamps. I'm feeding my radio with RG-8 (stranded) from the antenna.

The SWR is less than 1.4 throughout much of the 2-meter band and very close to 1:1 at 146.900. The total cost to me was less than \$25.00 (10 feet of 1/2 inch copper pipe, PVC pipe, and four 3" hose clamps) but I had some of the copper fittings, hose clamps, other hardware, and connectors that I had picked up at Hamfests and yard sales.

Other than a dipole, this was the first antenna I ever built and am pleased with the results.

Since erecting the antenna, I have mounted a wireless weather station to the mast. All of this effort is to permit me to participate in Skywarn.



73, AI Molin N1JXS

AI Molin N1JXS

EAST COAST AMATEUR RADIO SERVICE (ECARS)

John Coombs WQ1L reports that he just joined ECARS and tries to check in with the ECARS Net Control every day while traveling from home to Pier 18 to meet **Vic N1OEH** and others for breakfast. This is a weather and travel advisory NET for mobile amateur operators.

Check out ECARS at www.ecars7255.com



TAUNTON CHRISTMAS PARADE WITH NO SNOW THIS YEAR



THE TAUNTON EMERGENCY MANAGEMENT AGENCY CREW - CRUSIN' THE DRAG

The HAMS participating in the Taunton Christmas parade were **Peter Ferreira KB1LXG** seen driving the TEMA Vehicle and towing a portable light trailer with daughter **Rose SWL** in the truck. Standing in the back of the truck is **Rudy Burer KB1LXI** and **Marc Levesque KB1NMI** in yellow vests along with **Brian Bisson SWL** and **Paula Farrales SWL**. (When is **Paula SWL** going to get her License ??). Also participating but not shown was **Rick Ferreira KB1KWF**. **Peter KB1LXG** and **Rudy KB1LXI** are Whitman Club members.

WINTERFEST IN WHITMAN

Bill Hayden N1FRE reports that the Whitman 2006 Winterfest, held on Sunday December 3rd, was visited by an estimated 10,000 people throughout the day. Gallons of free hot chocolate and mounds of cookies were enjoyed while watching the ice sculpting or riding through the park in a horse drawn wagon or having a picture taken with Santa. December fire works topped off the event at 6:00 pm.

Behind the scenes were dozens of volunteers helping to make this a safe and successful event. Whitman club members helping out with various duties, including additional security and communications were **Bob Schmitt KB1MTY**, **Erika LaFlamme KB1MTV**, **Jeff Tracy N1SOM**, **Mike Supple KB1OEP**, **Bill Hayden N1FRE**, **Frank Hayes N1OGP**, and **Gloria Chiamonte KB1OAV**.



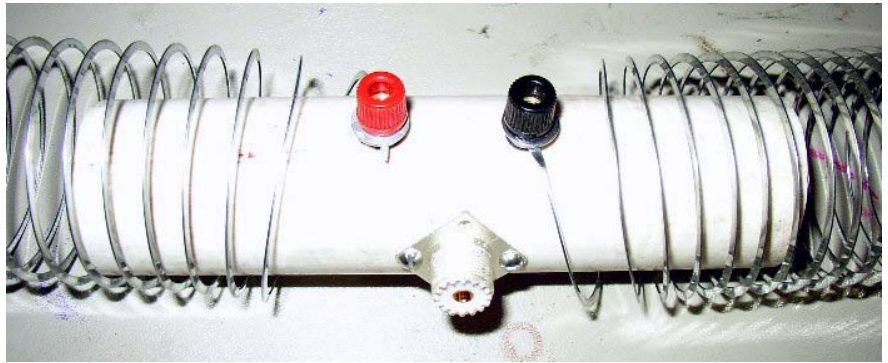
Gloria KB1OAV &
Frank N1OGP

Bill N1FRE reports that a new set of commercial handheld radios and a Base Station have been received and were put in use for the first time at the Whitman 2006 Winterfest activities. This allowed town officials to monitor the volunteers reporting in to the NET Control Station.

TECHNICAL TOPICS -- THE CLANDESTINE MULTI-BAND HF SLINKY ANTENNA



Wire extension



PVC center piece with binding post and SO-239 connector

Bill Hayden N1FRE built a slinky antenna for installation in his attic and showed us how he solved the problem of making connections to the slinky by mounting two binding posts on a piece of PVC pipe and wiring them to a SO-239 connector. Each Slinky contains 63 feet of flat steel wire and the effective overall length is a little over 130 feet. **Bill N1FRE** used a rope, strung through the Slinky and attached to the attic walls, to support the Slinky along with a separate rope attached to the PVC pipe to support the center. **Bill N1FRE** showed us how he crimped a short length of copper wire to each end of the Slinky to lengthen it and to make it easy to terminate the wire ends with a rope attached to the attic walls.

BILL HAYDEN'S N1FRE HANDOUT IS AS FOLLOWS

Slinking Around: Slinky is a toy made from a flexible 90-turn spring with a 2-3/4 inch diameter. Each Slinky coil contains 63 ft.- 8 inches of flat steel wire, and weighs approximately 1/2 pound. When a Slinky is compressed, it is only 2-1/4 inches long, but it can be stretched into a helix as long as 15 feet in length without deforming. An antenna made from a Slinky is light, simple to suspend and extend, and easy to put out of sight when not in use.

Slinky Antenna Basics: <> Since the 1950's, millions of people have had fun playing with the Slinky because of it's mechanical properties. But it turns out that the Slinky has some interesting electrical properties at radio frequencies too. Since it is a helix made of conducting material, it will be self-resonant at some frequency. In fact, a standard Slinky coil resonates as a quarter wave between 7 and 8 MHz when it is stretched to lengths between 5 and 15 feet. To tune the Slinky within that range one must only extend the coil to approximate size, then expand or contract it to reach the desired resonance.

At a length close to 7-1/2 feet a standard Slinky is quarter-wave resonant on 40 meters. So a 40-meter dipole made from a pair of Slinky coils will fit in any apartment, balcony, or hotel room and can be put up in a matter of minutes. Dipoles resonant at frequencies above the 7-8 MHz range may be created by removing turns to shorten the helices or by shorting out turns. A twenty meter dipole, for example, can be made by cutting a Slinky coil in half or simply by feeding it with a delta match in the center. For target frequencies below 40 meters, one adds turns from another Slinky coil or clips a wire pigtail on each end. For example, by adding one more coil to each side and stretching the whole array to about 30 feet in length, you can make an 80-meter dipole that will fit in most attics and motel hallways.

TECHNICAL TOPICS -- THE CLANDESTINE MULTI-BAND HF SLINKY ANTENNA Cont:

Performance:<> Is this a wonder antenna? No. But, it still works well. In a state-wide test on a 75 meter phone net, a 30 foot long, 80 meter Slinky dipole up at 20 ft. received signal reports on average 1-1/2 S units lower than a TNT Windom up at 35 feet. That's not bad for a 1/10 wavelength antenna! It would have done better if the antennas were equally high, but it would never out perform the full size dipole. Compared with a Hustler Mobile whip, it's performance and bandwidth were outstanding. So, considering that you can even install a Slinky antenna that will work on 80 meters inside a motel room, slinking around with one promises some good moments.

TIPS FOR EXPERIMENTERS:

Here are a few things to keep in mind when working with Slinky coils.

1. The simplest way to obtain multi-band results is with a **pair of Slinky coils**. Stretch them as far as space permits, then attach a feed line made of coax or twin-lead. Here you have a compact version of the good old "center fed Zepp". Feed it through an antenna tuner and this simple antenna will work on all bands, 7 MHz and above and in a pinch it will even permit QSOs on the 80-meter band.
2. Experiment with feed line connections that best suit your needs. Binding posts bolted through a short length of PVC pipe, crimp and solder connections and wire nuts are but a few ideas.
3. **Note:** <> Slinky coils will corrode if left outdoors for more than a few weeks. Corrosion will take place on the surface where the RF energy wants to travel. This means that the Slinky is really best suited to indoor or portable deployment. If you wish to put your Slinky antenna outside on a more or less permanent basis, you should solder all connections well, then paint the whole antenna with a spray enamel.
4. Slinky coils are not self-supporting so you will need to use a strong nylon line or lengths of PVC pipe run through the center of the Slinky array to support the weight of the coils.
5. For a given Slinky antenna, performance seems best at the frequency of natural resonance and on the next harmonic because the coils act increasingly like an RF choke on the higher harmonics.

Have Fun Slinking Around: <>

Kids don't know half the fun of a Slinky. <> Could they imagine talking into one and having someone from the other side of the world answer them on 15 meters? Or think of checking into MARS or RACES NETs with a Slinky strung on the bedroom wall, or in the attic? Only in Amateur Radio can you have as much fun as this with a Slinky.

Notes: 2.71" diameter x pi = 8.5" circumference x 90 turns = 63 feet 8 inches of flat steel wire per Slinky coil

73 and you have a grrreat Slinky Day! – From: Bill Hayden N1FRE



WHITMAN AMATEUR RADIO CLUB, INC.

A Non-Profit Corporation Serving the Public in Time of Emergency



Post Office Box 48
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Telephone: (781) 447-1655
ARRL Club #0082
Club Call Sign: WAINPO

CLUB OFFICERS

MEETING SCHEDULE

Meetings are held on the first
Wednesday of each month

The next meeting will be held at the
Whitman Public Library, which is
located at 100 Webster Street
in Whitman, Mass.

Next Meeting

Wednesday, Jan. 3rd at 6:30 p.m.
Whitman Public Library

President	Bruce	NIIX
V. President	Bill	N1FRE
Secretary	Roy	KB1CYV
Treasurer	Jeff	N1SOM
Director	George	KC1FZ
Director	Paul	N1VTI
Director	Jeff	N1ZZN

Editor	Bruce	NIIX
E-mail articles to:	niix@arrl.net	

Web Master	Jeff	N1ZZN
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Web Site: <http://www.wa1npo.org>

Club Repeater Station:	147.225 MHz (CTSS 67 Hz)	449.875 MHz (CTSS 88.5 Hz)
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*Whitman Amateur Radio Club, Inc.
P.O. Box 48
Whitman, Ma 02382*

