



SPECTRUM



In this issue

July 2018 meeting notes

"The Trials and Tribulations of Hanging a Wire Antenna"
article by Steve W1OD

"Innovative GO-Box DC power supply design" article by Chris N1CFB

Ham Radio Local Area Nets by Barry N4NMF



Whitman Amateur Radio Club Meeting 07/11/18



Paul Moss KB1MTW **Larry Kenney W1VP** **Jeff Tracy N1SOM** **Joe Amorelli K1JMA**
Vice President Secretary Treasurer President

ATTENDANCE: 34 members and guests were present including 4 elected officers

W1VP Larry Kenney	N1SOM Jeff Tracy	KB1MTW Paul Moss
K1JMA Joe Amorelli	WD1L John Nelson	W1JT Jim Tovet
KB1IKH Elayne Tovet	N1IQI Loren Pimentel	AG1B Richard Metcalf
WK1D Jeff Ayres	W1OD Steve Cohn	W1MBH Scott Mitchell
KB1OEQ Ron Stundze	KC1FZI Joe D'Antonio	KC1FZ George Davis
N1OYH Carl Davis	KB1SVY John Duprey	SWL Michelle Duprey
KA1DTA David Rezendes	N1ZZN Jeff Lehmann	N1BSO John Laiosa
KC1JSL Ben Fletcher	KC1FZH Marty Nugent	WA1BEE Allen Hiltz
WI1G John Murphy	WA1MAD Mike Davis	K1FAB Fred Birtwell
N1CFB Chris Babbitt	KC1ITF Mark Hirtle	KB1WNX Steven A. Lyons
WA1YKF Warren Dickie	KC1JOW Adam Heckman	W1VU Bob Egles
W1AZU Heather DeMont		

Secretary's Report:

President **Joe Amorelli K1JMA** called the meeting to order at 7:00 pm 07/11/18. A quorum was present.

The Pledge of Allegiance was recited, followed by an attendance roll call.

Treasurer **Jeff N1SOM** read the June 2018 treasurers report. Motion to accept the report as read made by **Jeff N1ZZN** with a second by **John WI1G**. Motion passed quorum vote. In addition, **Jeff N1SOM** read a thank you card recently received by the club from this years Dollars for Scholars recipient.

Secretary **Larry W1VP** indicated the June 2018 meeting notes were published online on the club website. Motion to accept the June 2018 meeting notes as published made by **John WD1L** with a second by **Jeff WK1D**. Motion passed quorum vote.

Health & Welfare report by **Elayne KB1IKH**.

Elayne reports the following:

- A Get Well card sent to **Frank Hayes N1OGP**
- A Sympathy card sent to **Joan Smith KB1NAX**
- A Dish Garden sent to **Billy Robinson K1UFO**

Net Control for July 2018.

- July 15th **Richard AG1B**
- July 22nd **Paul W1GTX**
- July 29th **Jeff N1SOM**

New Members:

Joe K1JMA and **Jeff N1SOM** presented 2 new member applications in good standing to the club membership for acceptance:

- **Benjamin J. Fletcher KC1JSL**
- **Adam Heckman KC1JOW**

Motion to accept as new members made by **John WD1L** with a second by **Jeff WK1D**. Motion passed quorum vote. Welcome to the club Ben and Adam!

Committee reports

Repeater report by Jeff N1ZZN

- **Kevin KB1MOC** is finding the cost for a repeater antenna swap out of the 150Mhz repeater antenna we're currently using, to our relatively new 2M antenna currently in storage (formerly used briefly at the former Ridder 2M repeater site). Jeff notes we'll need a quality climber/installer to assure a good, reliable installation. Total cost tbd.
- **Mike WA1MAD** asked about our 900Mhz repeater. **Jeff N1ZZN** reminded everyone this repeater is actually on loan to the club by **KC1EFG**. **Paul KB1MTW** further filled in a historical account of our 2M antenna de-installation and 900Mhz repeater installation the Ridder site.

Equipment/Assets committee update by Paul KB1MTW

- **Joe K1JMA** announced a plan for club equipment repair & tune-ups using a local resource. Joe further indicated this resource would be available for club member use as well as a reasonable rate. Details to be posted on the club website when available. A short discussion took place on this subject.
- **Jeff N1ZZN** asked about equipment storage other than at the quonset hut for environmental reasons. **Joe K1JMA** indicated an alternate location is being investigated as well as protective cases for each radio will be acquired. A short discussion took place on equipment management and safe storage.
- **Paul KB1MTW** noted an upcoming equipment removal effort sometime in the next few weeks from the estate of past Whitman club member **Arthur Fontes**

N1VEG/SK. Paul displayed some books from the estate at the meeting, which will be auctioned off in the future. Equipment Paul noted: a Yeasu FT990 HF rig, power supplies, etc. is expected to be collected from the estate. A 3-element beam is on the roof as well (2nd story) but not being removed by Paul. If interested, contact Paul for more details.

- **Paul KB1MTW** showed folks the new club antenna analyzer. **Joe K1JMA** briefly discussed analyzer training prior to use and the sign-out procedure for club member when borrowing this. Paul noted the old/broken MFJ analyzer has been disposed of.

Training Committee update by Ross W1EKG

- **Ross** announced plans for a 1 night Marshfield Fair training session taking place before the start of the event. The training will cover daily booth operations including interaction with the public and will be geared towards folks who have never volunteered for this event before. Ross expects to book the training room at the Whitman Police Station for this. More details to follow.
- **Ross** is planning a twice per week Technician class in September, followed by a General class in October and an Extra class in January 2019

Old Business

- **Paul KB1MTW** thanked all who assisted with the recent ARRL Field Day event. QSO totals were assembled by **Larry W1VP** from the computer logs and passed to **Jeff N1SOM** for point calculations, formatting and submission to the ARRL. Results will appear in the December 2018 issue of QST.
- **Larry W1VP** noted the QSO totals were added to the club website (and added here as well for reference)

BAND	QSO's
○ 10M SSB	1
○ 10M SSB GOTA Station	5
○ 15M SSB	12
○ 20M Club Station	95
○ 40M CW	255
○ 40M SSB	61
○ 80M SSB	143
○ Total	572

New Business

- **Joe K1JMA** asked for volunteers for a new apparel committee being formed. The committee will manage development of club clothing items and orders. No volunteers came forward during the meeting.
- **Joe K1JMA** indicated the necessary paperwork for the 501(c)(3) non-profit filing was recently done by **Jeff N1SOM**. Jeff notes we should have results from the filing within a few months.
- **Joe K1JMA** reminded everyone of the on-going Mesh Network development work taking place. Joe acquired a number of Linksys routers which can be used

for this purpose. Club members interested in a Linksys router and volunteering for Mesh Networking experimentation, please see Joe. **Jeff N1ZZN** noted the Ubiquity devices will also work and are designed for outdoor installations.

- **Joe K1JMA** provided a brief update on plans for the Marshfield Fair event in August, per the Marshfield Fair committee. Joe noted the most current booth schedule is available on our club website. This includes instructions on how to volunteer for shifts at our booth.
- **Paul KB1MTW** mentioned the need for volunteers at the upcoming July 22nd 5K race at Camp Yomechas in Middleboro.
- **Jeff N1ZZN** mentioned placing an 900Mhz HT battery order soon. Anyone interested in adding to Jeff's order, see Jeff asap.
- **Joe K1JMA** and **Paul KB1MTW** commented on an upcoming club jacket order (likely last one of the year). Please contact **Jack Foley N1QE** to place a jacket order.
- A brief discussion took place regarding unlicensed folks using the club repeater. It was stressed that once you are aware of this situation, all communications with unlicensed individuals must be ended immediately. At risk is the club amateur license and your license. **Jeff N1ZZN** reminded folks of his recent email warning folks of hearing use of the **W2RFW** call on the Belmont and Whitman repeaters by someone other than the owner of this call. Please don't call or answer this individual.
- **Joe K1JMA** mentioned the need for club Newsletter content from club members. Joe offered some examples (equipment reviews/comments, innovation projects taking place, interesting experiences, etc..). Please forward newsletter articles/content to the club email.
- **Joe K1JMA** reiterated club communications to members is by way of email and postings on the club website. Joe suggests everyone check their email on a timely basis (daily for example) to stay up to date on the latest club info.

Motion to adjourn made by **Steve W1OD** with a second by **Jeff WK1D**. Motion passed a quorum vote. **Joe K1JMA** adjourned the meeting at 7:45pm, 07/11/18

End Secretary's Report



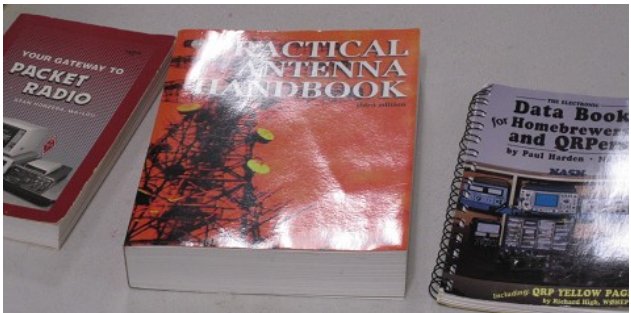
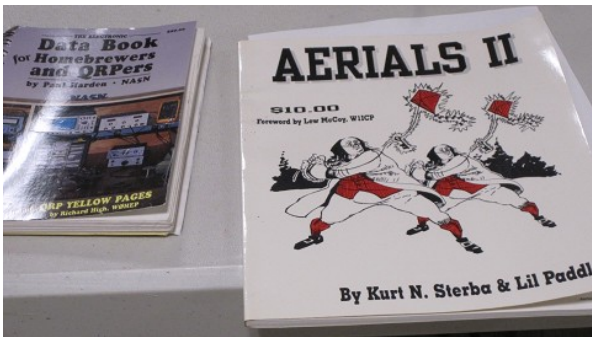
Whitman club meeting



July 11th 2018

Photos by Jeff WK1D





The Trials and Tribulations of Hanging a Wire Antenna

by Steve Cohn W1OD

Putting up a long wire or dipole antenna is relatively easy, especially if you are able to have or borrow a “spud launcher” to facilitate heaving a line over a somewhat suitable tree limb. Of course, a good aim is essential for not losing the projectile or having it break apart when it repeatedly smacks into the limb you’re trying to get it over!

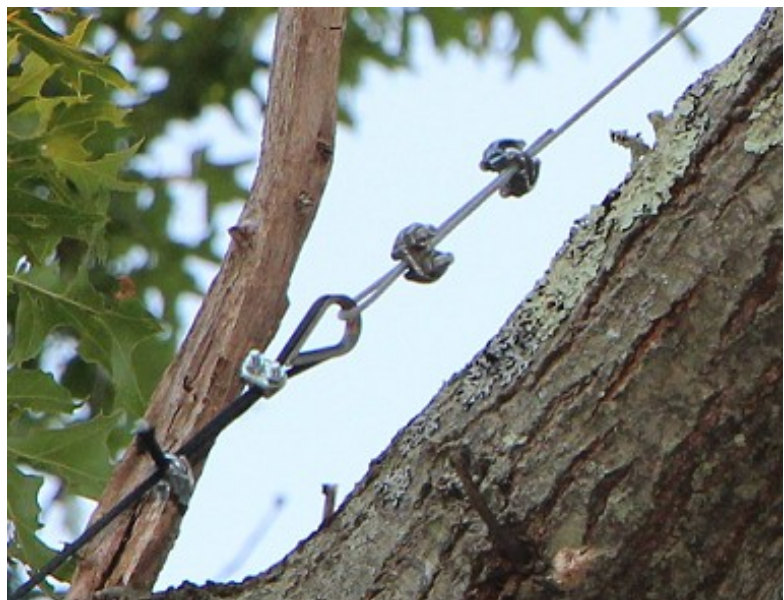


I’m using a Buckmaster off-center fed dipole antenna. It works quite well despite the power limitation of 300-350 watts. Once I scoped out my yard and found a path to avoid most of the trees, we had an antenna raising party, complete with four spud launchers. We used the good quality antenna rope to hang the balun over a tree limb, and the ends of the antenna were also supported by pulleys and weights at the other ends of the run. The antenna worked quite well over the few years it was up, and the rope was inspected every couple of months or so. When it was noticed to be frayed, the antenna was lowered to the ground and the black rope was replaced by a thicker rope. But it was not UV resistant and in a matter of only a few months it too frayed and was replaced by another piece of black UV resistant antenna rope. But this time the rope was connected to a pulley and the pulley had a rope connected to the balun to facilitate lowering the antenna without having the upper rope become worn by the tree limb’s bark. It worked great ... in theory at least. Everything was fine until we had the bad winter storms in early 2018. The wind caused so much movement of the tree limb, it chafed the antenna rope to the point where it broke and the whole thing fell to the ground.

After once again replacing the antenna rope supporting the pulley, everything looked fine and many contacts were once again made. But once again, Mother Nature had other plans and that piece of rope soon became frayed and once again the antenna fell to the ground. Alright, enough of this malarkey! What can be used that would withstand the forces of nature. Hmmm, in rummaging through my garage I came across a couple of unused 1/8” steel garage door spring safety cables. Can this be adapted to my use? Will it affect the radiation pattern of the antenna? How can I attach the steel cable to a piece of antenna rope?

It has been often said that necessity is the mother of invention. I took a close look at the steel cable. It had a loop at the end which was crimped tight to hook over something. Maybe I can disassemble the pulley and get that loop inside where the pulley is supported.

Voila! It worked! Now to get the other end to mate with the rope. Hmmm. Off to my local hardware store to see what I could use or adapt. I came home with a couple of “clamp and thimble” sets. I took the rope and ran it around the outer edge of the thimble, and used two clamps to secure the rope securely enough that it would not fray or come apart. I then ran the open end of the steel cable through the inside of the thimble, and then back up the line for about six inches, and tightly secured the steel cable to itself using two other clamps (see photo). One of the keys is to place the first clamp right at the apex of the thimble so the rope does not walk out of the groove. By George, this just may work!



After borrowing a spud launcher once again, I was able to get a line over the tree limb once again and deftly pulled the rope back over the tree limb to the point where the steel cable was straddling the

limb, and not the rope. It is hoped that the tree will not chaff the steel cable and if anything, the steel cable may cut a groove in the tree when the tree sways. Once the balun was repositioned to roughly 35' above the ground, and the ends of the wire antenna were adequately supported and secured, it was time for the "smoke test."

I fired up the Yaesu FT-950 on maybe ten watts, and tried tuning the radio on every band the antenna was designed for. Eureka, it tuned on every band. I then tried 100 watts, and it tuned with a VSWR of less than 1.15:1 ... and no smoke! Then the "big test!" I backed off the power to the 950 to about 35 watts and fired up the amplifier to 300 watts +/- . After retuning the amplifier into the dummy load on each band and making note of those settings, it was time to switch to the antenna. Contacts were immediately made in Switzerland and Venezuela and a few points in between, all with 5-9 signals. Subsequent reports were +10 to +20 at one point.

I have found that the steel cable has not adversely affected the radiation pattern, and I have not had any other rope surprises – yet. I would recommend that anyone contemplating hanging an antenna support rope over a tree limb for any length of time consider using a steel cable. It just may save you a considerable amount of angst when dealing with storms and frayed lines.

Steve Cohn, W1OD

*Steve is a member of the Whitman Amateur Radio Club and has been a licensed amateur radio operator for more than 25 years. He is a VE and **K1USN** site liaison for the ARRL, and the trustee for the **W1NAS** Club of the Shea Naval Aviation Museum at the former South Weymouth Naval Air Station. He is a retired television broadcast engineer and has been commercially licensed for more than 50 years. He has spent 45 years in television and about 3 years in radio. You can reach him at w1od@arrl.net.*



Innovative GO-BOX DC Power Supply Design

by **Chris Babbitt N1CFB**

"My goal is to have reliable battery power to run the Icom IC-706 MKII at 100 watts from my camper".



Not long after I bought the "706", I realized the problems with decreased battery voltage from the audio reports I was receiving. My reports were "garbled audio", "Sounds like a ground issue" etc. I did some research and learned that the voltage requirement for the "706" was pretty stringent. The radio did not want lesser voltages than 13.8v dc. I had picked up three old AGM batteries for free because they were a little low in voltage. 11.5 or 12.1 etc. but they were 93 amp/hr batteries and lasted a long time. So, I started looking around and, I found the MFJ Battery Power Booster and for over \$300 I had finally found the solution. This Power Booster would take in 10- 12, volts and put out a constant 13.8v dc! Yeah!! That was it, I thought.. Sure, I was getting my 13.8v dc and the battery was lasting pretty long but.. BUT, there was this noise.. On every band.. In a few different places per band. The noise was a sort of rushing wind sound almost like a jet airplane landing in a descending tone and frequency that completely wiped out all reception within 10 khz as it traveled along the band. So, Back to the drawing board..

I kept reading about different types of systems and was looking into solar panels and saw they use 12/24 volt systems. And they showed how you can run your system a little more efficiently by going with 24v dc. I had a thought.. I could run my 93 Amp/hr batteries in series to get 24v dc or close to it.

The next hurdle was to figure out how to step down 24v dc to 13.8v dc. I found some commercial power supply companies that had expensive and low current converters but I needed more current and less cost.

And then I found it.. A 13.8v dc converter for Aircraft or Marine 24v dc systems for radio equipment requiring 13.8v dc with high efficiency and low noise. The Astron DC to DC Converter Model# N2412-24. Critical Power Solution for 13.8v dc Mobile Equipment.



I got everything hooked up and was pleased to run the radio for about 4 hours at 100 watts with two batteries in series which hadn't been charged in over a year. I hooked up some solar panels and let the charging begin. next day same thing. Hours of operation with no undesirable results. I got everything installed into my pop-up camper and I'm ready for the next outing. I have an Astron 20 amp power supply and a generator for field day and camping running through a Low Loss Power Gate that switches to DC power when the AC power goes out and now Reliable Battery Power to Run the Icom IC-706 MKII.

So far my test have proved this setup works pretty well. You can get lower cost used batteries at a Junkyard whos name has escaped me but they're deep cycle truck batteries for a very reasonable price. Ross knows the name of the junkyard. The DC to DC converter can be found through a google search. Expect tp pay just under \$100 with shipping.

73

**Chris
N1CFB**



Note: new addition: The NorthEast Cracker Barrel net, daily 7pm on 3921 Khz



HAM RADIO LOCAL AREA NETS

If you know of a Ham Radio Local Area Net that is not listed here, a typo on the information, or a Net listed which is no longer active, please contact Barry – N1EZH at: N1EZH@comcast.net, so this list can be updated. All Frequencies are in MHz and 6 Meters (50.0 MHz and up.), are FM Mode unless otherwise noted. Thanks!

Sunday: **WA1NPO – WARPSN Net, 8:30 AM, Whitman ARC Rptr, 147.225 +, PL 67.0**
6 Mtr AM Net, 5:00 PM, 50.400.0 AM, Scituate
NE Cracker Barrel Net, **7:00 PM Daily** (Matt – W1AEM, NCO on Sun), 3.921.00 MHz LSB
Pilgrim Amateur Wireless Assoc. 10 Meter Net, 7:00 PM, 28.375.0 USB
Cape & Island Traffic Net, Every Night at 7:30 PM, Falmouth N1YHS Rptr, 147.375 + PL 110.9
Genesis ARC CW Training Net, 7:00 PM, Plymouth N1ZIZ Rptr, 146.685 – PL 82.5
Eastern MA 2 Mtr Traffic Net, Every Night at 8:00 PM, Boston W1BOS Rptr, 145.230 – PL 88.5
Norfolk County Radio Association Net, 8:00 PM, Walpole Rptr, 146.895 – PL 123.0

Monday: Cape and Islands Weather Net, 6:00 AM, Mon – Sat, Dennis K1PBO Rptr, 146.955 – PL 88.5
Fairhaven Weather Net, 8:00 PM, SEMARA Rptr, 147.000 + PL 67.0
Norfolk County Emergency Preparedness Net, 8:00 PM, Walpole Rptr, 146.895 – PL 123.0
Falmouth ARA Net, 7:30 PM, Falmouth K1RK Rptr, 146.655 – PL 88.5
Boston ARC Rag Chew Net, 9:00 PM, Boston W1BOS Rptr, 145.230 – PL 88.5

Tuesday: Massasoit ARA Net, 8:00 PM, Bridgewater W1MV Rptr, 147.180 + PL 67.0 (Except 3rd Tue!)
Genesis ARC 2 Mtr Rag-Chew Net, 7:30 PM, Plymouth N1ZIZ Rptr, 146.685 – PL 82.5
Fairhaven Weather Net, 8:00 PM, SEMARA Rptr, 147.000 + PL 67.0
Norwood Amateur Radio Club Net, 8:00 PM, Norwood Rptr, 147.210 + PL 100.0
220 MHz Day! Try to find a 220 Repeater near you and give a call out!

Wednesday: Taunton ACG, KC1TAC, 2 Mtr Simplex Net, 8:30 PM, 145.770
Whitman ARC 10 Meter Rag-Chew Net, 8:00 PM, 28.333.0 USB (Except 1st Wed!)
Blackstone Valley ARC , 2 Mtr Simplex Net, 7:00 PM, 146.565
Fairhaven Weather Net, 8:00 PM, SEMARA Rptr, 147.000 + PL 67.0
Cape and Islands ARES Net, 8:00 PM, Dennis K1PBO Rptr, 146.955 – PL 88.5
Waltham Wranglers Swap Net. 9:00 PM, Waltham W1MHL Rptr , 146.64 – PL 136.5

Thursday: Fairhaven Weather Net, 8:00 PM, SEMARA Rptr, 147.000 + PL 67.0
Genesis ARC CW Training Net, 7:00 PM, Plymouth N1ZIZ Rptr, 146.685 – PL 82.5
10 Mtr General Class Rag-Chew Net, 8:00 PM, 29.470.0 FM
Sturdy Mem. Hosp. ARC ARES Practice Net, 8:30 PM, K1SMH Rptr, 147.195 + PL 127.3
900 MHz Day! Try to find a 900 Repeater near you and give a call out!

Friday: Fairhaven Weather Net, 8:00 PM, SEMARA Rptr, 147.000 + PL 67.0

Saturday: South Shore Skywarn Net, 8:00 PM, Bridgewater W1MV Rptr, 147.180 + PL 67.0
VKEMCOMM Echolink Conference node: 270177/IRLP 9508 (due to *WX-TALK* Echolink conference node: 7203/IRLP 9219 outage) Refer to: <http://www.voipwx.net/>



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. We need your updates for the newsletter.

As part of our training, we encourage everyone to practice sending routine RADIOGRAM messages. Make up a National Traffic System (NTS) traffic message and send it to a friend. We also encourage everyone to try your hand at Net Control. Contact **Bill N1FRE** for a Net Control handout or visit our website at:

www.wa1npo.com and follow the link for the Sunday Public Service Net
 (http://www.wa1npo.org/index.html#Sunday_Public_Service_Net_Control)



MEETING SCHEDULE

**Meetings are held on the first
 Wednesday of each month**

**The next meeting will be held at the
 Whitman Knights of Columbus, which is
 located at 1195 Bedford Street
 (Rt. 18) in Whitman, Mass.**

NEXT MEETING

**Wednesday, August 1st 2018
 Whitman Knights of Columbus**

NEXT MOTA/Repeater MEETING

**Wednesday, August 15th at 7:30 p.m
 on the Whitman 147.225 repeater**

Club REPEATER 147.225 MHz PL 67
 Club IRLP Node 8691
 Club EchoLink: WA1NPO-R Whitman MA USA
 Club EchoLink Node 484193

CLUB OFFICERS

President	Joe Amorelli	K1JMA
V. President	Paul Moss	KB1MTW
Secretary	Larry Kenney	W1VP
Treasurer	Jeff Tracy	N1SOM
Director	John Nelson	WD1L
Director	Mike Davis	WA1MAD
Director	Richard Metcalf	AG1B
Director/		
Past President	John Murphy	WI1G
Health/Welfare	Elayne Tovet	KB1IKH

Repeater Manager

Jeff Lehmann N1ZZN
E-Mail: n1zzn@comcast.net

Training Manager

Ross Hochstrasser W1EKG
E-Mail: bavarianradio@comcast.net

Assett / Equipment Manager

Paul Moss KB1MTW
E-Mail: pm.moss@comcast.net

Newsletter Editor

Larry Kenney W1VP
Email: LJK320@netscape.net



WHITMAN AMATEUR RADIO CLUB, INC.

Post Office Box 48
Whitman, MA 02382
ARRL Club #0082
Club Call Sign: WA1NPO

