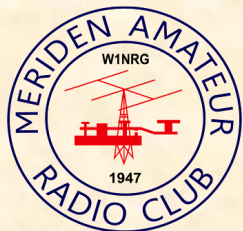


# KEY KLIX



**MERIDEN AMATEUR RADIO CLUB**

**1947 -- 2019**

**JUNE 2019**



OFFICIAL MAILING ADDRESS,

MERIDEN AMATEUR RADIO CLUB POB 583, MERIDEN CT 06450

PRES W1YSM ED SNYDER VP KB1JL ERIC OLSSON

SECT NZ1J DAVE TIPPING TRES K1WJL DAVE SWEDOCK S.A.M. K1RCT ROB CICHON

ALL MEETINGS ARE AT THE EOC HOPE HILL FIREHOUSE

143 HOPE HILL ROAD, WALLINGFORD

KEY KLIX EDITOR DAVE SWEDOCK K1WJL DSWEDOCK@GMAIL.COM 203 235-8582

# FIELD DAY ISSUE

**SATURDAY JUNE 22 — SUNDAY JUNE 23**

# 2019

**AT THE EOC**

Its that time of year again, when Real Hams rush to the fields and mountains to set up emergency tents, gas up the generators, string extension cords, shoot antennas over trees, push up 40' extension ladders to use as makeshift towers, run coax, ladder line, verticals, set-up the satellite antennas, lather on the sunscreen and bug repellent, dodge the meadow muffins and the corresponding givers of such...Then sweat profusely in a tent with no windows, freeze at night when a cold front comes though and blows the tent away complete with lightning bolts and enough static electricity to make your hair stand on end. Then there was the year that the coffee pot kept re-brewing all night, that was goood coffee, no one slept for two days after that..... Yeah I really miss all of that.....

While the "almost" Real Hams will actually go to the Wallingford Emergency Center and operate "1F" category with a CW and SSB station, a Gota, Vhf, Satellite etc complete with A/C, indoor toilets, catered food by GNV services who sends the following:

Field Day Infra-Red Station Info and schedule:

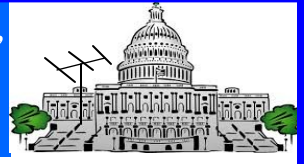
Foodmeister N1GNV (No One Grills Nicer Victuals) reports that plans are complete and things will proceed smoothly. The grill will be fired up promptly at some time between 12 Noon and 2PM Saturday, with a strict closing time of somewhere around dusk. Latecomers may also be accommodated. Sunday will be an abbreviated version of Saturday. The club will provide burgers, dogs, and the accompanying accoutrements. And of course the world-acclaimed, award-winning RoadKill™ Please add to the fun by bringing your own specialties, snacks, salads, desserts, and like items. Looking for a volunteer to do Sunday Morning breakfast. In the past we've had eggs benedict, crepes suzette, and some delightful souffles. That may be stretching things a bit. Pancakes, waffles, eggs? Your choice. The club will reimburse you for reasonable expenses.

Let me know so we can coordinate. E-mail is best -- jbee@qsradio.com



# The President's Net Control Corner

Ed WIYSM, President MARC



## MARC: MOVING INTO 2020 AND BEYOND (PART III)

For this month's installment, I would like to discuss two substantive issues facing our Club, as we move forward.

**Constitution and By-Laws Revision:** Steve KC1SA revised the Constitution and By-Laws on June 14, 2018. The entire process was difficult at best and Steve deserves our gratitude and admiration for his efforts. There was a good deal of acrimony around the process, but it did move MARC forward. The last revision was dated September 10, 2009. Many improvements were inserted, and many outdated parts deleted. Importantly, the documents were made non-gender biased, a sign of a progressive organization. However, there are still some important issues to be addressed – they will be addressed in future columns in this space. While there is no urgency – the woods are not ablaze, I will appoint a Committee (“what another one?!” – yup) of interested members to work on this task going forward. If you wish to be part of the process, please see me and let me know of your interest.

**Nutmeg Hamfest Alliance:** Integration of the Nutmeg Hamfest Alliance (NUTFEST) into MARC as a standing committee. Preceding this maneuver, it will be necessary to dissolve the Alliance. This is a potentially contentious issue and I am fully aware of the toes that are waiting to be stepped upon. However, there is no real reason to have a separate organization as I am advised that MARC's liability exposure is not insulated from that of the Hamfest. Again, no need to rush this action, but it is on my radar for the next year or perhaps the year after that. I believe we can/should integrate the Hamfest into MARC, in a move similar to the integration of WARG into MARC as a standing committee. Stay tuned – and yes, yet another Committee will be formed to address this. Again, let me know your thoughts and if you are interested in participating in the process.

### **Miscellany:**

- 1) Kudos to Ed N1YLN and Rob K1RCT for their efforts to get Field Day underway. It is good to see many members participating in the process.
- 2) I have secured the Christmas Party for December 12 at Serafino's Restaurant. The details will be announced at the June Business Meeting. **Spoiler Alert** – the meal will be the same and the price for each member and guest will be \$23.00/person including tax and tip. They can accommodate up to 60 people.
- 3) I am working on a Speaker for the Nutfest and one for the Xmas Party in December. Contact me if any suggestions
- 4) Also, contact me about ideas and suggestions for next years (!) Activities Meetings. These events just do not happen by themselves – I need your input!

73,

Ed W1YSM  
President MARC



## Secretary Report & Minutes of the Meriden Amateur Radio Club

**Dave Tipping NZ1J , Secretary**

### **BUSINESS MEETING, MAY 9, 2019**

Meeting was called to order at 19:30 EDT by President W1YSM

Introductions / Members Present: Introductions were made by 26 members in attendance.

Announcements:

Our current insurance policy covers the Nutmeg Hamfest.

NZ1J is working on revising the club Welcome Packet.

The MS Walk on May 5<sup>th</sup> was a success.

KC1SA is looking into new audio-visual equipment for the EOC.

Secretary's Report:

The April Business Meeting minutes were published in the May Key Klix and were accepted.

Treasurer's Report:

K1WJL gave a Treasurer's Report which was accepted.

The Radio Equipment Insurance Policy and the Liability Insurance Policy have been renewed and paid.

Station Manager's Report:

The change to the new club reflector is complete.

Plans are being made to install VHF/UHF antennas on the South Utility Pole.

The Repair Bench is now more organized and neater.

A calendar is slated to be added to the club web page.

Activity Committee:

The SKYWARN Session on May 8<sup>th</sup> uncovered the need for upgraded audio-visual equipment.

The May activity meeting will be a joint venture with members of the Salem Amateur Radio Club.

Saturday Mornings: About 18 people visit the club on Saturday mornings. N1AKN's troubleshooting and repair bench continues to be popular.

Station Activations: N1YLN is leading the planning for Field Day and is scheduling SSB operators.

W1KKF is scheduling CW operators.

Nets: K1VDF's 10 meter net, N1ZN's 6 meter net, and K1TDO's 2 meter net continue to get between 4 and 14 check-ins each week. The Nutmeg Net is currently on the 147.36 repeater four nights per week.

Castle Craig: The summer QSO Party will be the first weekend in August.

Scholarship: We've received eight applications, which the committee will review.

Membership: We have 73 members paid through the end of 2019.

Interference and Technical: No issues were reported

VE and Instruction:

Exam sessions are scheduled for July 13 and September 14.

Nutfest: The Nutmeg Hamfest is planned for October 13 at the Sheraton Four Points. N1MM will present a session on his N1MM software.

Key Klix: K1WJL welcomes any articles and photos. The May issue was another excellent newsletter.

EMCOM / AUXCOM: There is a 2 day Auxcom session sponsored by the Department of Homeland Security and the Connecticut State Police on June 8<sup>th</sup> and 9<sup>th</sup>.

Social Media: A notice for our Field Day event has been submitted to the local 'Patch', which is available online.

YL/XYL Committee: No new activity.

Candy Store: The club website has details about Gold Medal Ideas and MARC clothing and badges.

Old Business:

K1LYP is building a roster of Elmers who are willing and able to mentor new hams.

New Business:

The club Welcome Packet is being refreshed to bring it up to date.

We're looking into getting shades for the front windows.

We're considering a 65" TV for the EOC and determining the best place to mount it.

Meeting was adjourned at 20:37

Respectfully Submitted,

Dave, NZ1J

May 18, 2019





# ACTIVITY NIGHTS & EVENTS,

*ED W1YSM (ACTING ACTIVITIES MANAGER)*

# 2019

JUNE 27	PUBLIC SERV. & RADIO COMM.	BOB WB1GYZ / ERIC KB1JL
JULY 25	LARK IN THE PARK	
AUG. 22	DRONES – A PRIMER	STEVE KC1SA
SEPT. 26	JEOPARDY FOR HAMS	JOHN K1LYP
OCT. 24	SUNSPOTS	TBA
NOV 28	THANKSGIVING - NO ACTIVITIES MEETING	
DEC. 12	CHRISTMAS PARTY - NO ACTIVITIES MEETING	

**June Business meeting.....June 13 7:30pm @ EOC**

The June Business Meeting will commence at 2130Z (7:30pm EDT) at the EOC with Pres. Ed, W1YSM presiding. President Ed has initiated a plan to distribute the agenda a few days prior to the business meeting so you may have the opportunity to be well informed.

**June Activity meeting.....June 27, 7:30pm @ EOC**

Our own duo of Eric KB1JL and Bob WB1GYZ will present a program on Radio Service Communications in the Public Service and Railroad sectors.

**Save the Date... Sunday October 13, 2019 Nutmeg Hamfest at the Sheraton**

The committee is looking for ideas on Speakers / Seminars, Activities etc, all constructive criticism will be greatly appreciated.. N1MM has reportedly signed on as a speaker, this should be a positive attraction for the event.

**The Christmas Party**

Our Christmas party is scheduled for Thursday Dec 12 at Serafino's Restaurant in Wallingford. The cost will be \$23 per person... More details to follow...

**Field Day**

June 22 and 23 at the EOC.....The SSB crew needs more operators , loggers and welcomes observers...the CW crew could use a few more loggers also. Exciting news is that that we will have a very special visitor with a mission....please look inside for Eric KB1EHE article.....





# *The Shack* #9 IN THE SERIES

STATION ACTIVITIES MANAGER ROB CICHON K1RCT

THE SHACK – June 2019 Ninth in the series.

Field Day approaches Operators. I know our two Captains, Bill – CW Ops and Ed - Phone Ops (more affectionately known as the Beep-Beep Guys vs the Phonies) have been busy filling sked slots. If you have not been asked to fill a slot, please consider yourself asked! I know Bill is still seeking Loggers for CW Ops and Ed is seeking Operators and Loggers for Phone Ops.

Time to take a few moments to review the Operating Positions and some operating guidelines.

The FT-950 will be in-operation in the NW corner of the conference room (main room). The T6 and the 6M - 160M Fan Dipole OR Eric Knight's Sabertooth Wire antenna will be assigned there.

The FT-991a (with the external tuner attached) will remain inside the CSRR right-side for CW Operations.

The G5RV and possibly the 6M – 80M or 6M-160M Fan Dipole will be assigned there.

GOTA will be inside the garage bay or inside the trailer with the TS-690S, the Club Laptop and the 6M-80M Fan Dipole assigned there.

Final antenna assignments will be made on-site the day of Field Day.

The CW Station and the Phone Station will each have a Dunestar 600 Band Selector *which must be in-use*. The GOTA Station will have no such filter.

The Band Pass Filter works like this: if you are ON 20M, your filter dial must be at the 20M position. Likewise for other bands.

If the Dunestar fuse blows (yes, it has happened), replace it. Check with your friendly local Station Activity Manager but we have spares in the cabinets inside the CSRR. They will be unlocked for FD 2019.

No Operator is to change bands without consulting with and coming to an agreement with the Operators at the Other two Stations. Organized by CW, Phone and GOTA Captains but each Operator must coordinate with All other Operators in case the Captains are not on-site.

*This is for equipment damage control only.*

Field Day Chairman Ed O'Lena (N1YLN) will have final say as to the antenna assignment & starting band for each station.

Ed and I will be on-site for much of Saturday afternoon and Sunday daylight hours. If there arises an issue or problem, please find someone to contact either one of us if we are not on-site.

## *Hints & Kinks*

CW Station is now connected to an external tuner with a tuning chart. Please use it rather than using the internal tuner inside the FT-991a. The external tuner is not as sharp as the internal especially on 40M. Use the chart for initial settings but then tweak the setting for 'the sweet spot'.

Problem: The SDR-IQ (panadapter mode) associated with the FT-950 uses the same com ports as the FT-950 and the SignalLink USB. So when the Panadapter fires-up, there is a conflict. For now, the panadapter will not be used until I can figure-out another port for it. Do not look for the panadapter connected to the FT-950 Station for the time-being.

However; that also means the TNC (SignalLink USB) can now be used for digimodes on the FT-950. Working out the FLDigi settings after Field Day. DigiModes coming soon to our FT-950 Station.

## Final go-around:

We are still working out permissions on VHF antenna positions for our Shack. It may come to pass that we have to move the T6 to the southern-most utility pole and install the VHF directional antennas on the northern-most utility pole. More work than anyone wants but we will see where this goes. Keep your fingers crossed!

Lastly, what exactly IS the CSRR? Some of you have figured it out and still Others don't know. CSRR is the Chris Seivert Radio Room.

73! de K1RCT - S.A.M.

**CW FIELD DAY OPERATING SCHEDULE  
SEE W1KKF BILL FOR MORE INFO**

2:00 PM-3:00 PM	John / K1VDF
3:00 PM-4:00 PM	John / K1VDF
4:00 PM-5:00 PM	John / K1VDF
5:00 PM-6:00 PM	John / K1VDF
6:00 PM-7:00 PM	Bob / WB1GYZ, Bob / KE1AU, Dave / NZ1J
7:00 PM-8:00 PM	Bob / WB1GYZ, Bob / KE1AU, Dave / NZ1J
8:00 PM-9:00 PM	Bob / WB1GYZ, Bob / KE1AU, Dave / NZ1J
9:00 PM-10:00 PM	Bob / WB1GYZ, Bob / KE1AU, Dave / NZ1J
10:00 PM-11:00 PM	Bill / W1KKF
11:00 PM-12:00 AM	Bill / W1KKF
12:00 AM-1:00 AM	Steve / KC1SA
1:00 AM-2:00 AM	Steve / KC1SA
2:00 AM-3:00 AM	Ann / K1STM, James / AB1DQ
3:00 AM-4:00 AM	Ann / K1STM, James / AB1DQ
4:00 AM-5:00 AM	Ann / K1STM, James / AB1DQ
5:00 AM-6:00 AM	Ann / K1STM, James / AB1DQ
6:00 AM-7:00 AM	John / K1LYP
7:00 AM-8:00 AM	John / K1LYP
8:00 AM-9:00 AM	Eric / KB1JL
9:00 AM-10:00 AM	Eric / KB1JL
10:00 AM-11:00 AM	John / K1VDF, Bill / W1KKF
11:00 AM-12:00 PM	John / K1VDF, Bill / W1KKF
12:00 PM-1:00 PM	John / K1VDF, Bill / W1KKF
1:00 PM-2:00 PM	John / K1VDF, Bill / W1KKF

**SSB/PHONE OPERATING SCHED.  
SEE ED N1YLN**

Saturday	Operator	logger
2-3	KB1EHE	KB1IFZ
3-4	KB1IFZ	KB1EHE
4-5	KB1JL	KC1ISI
4-6	KC1ISI	KB1JL
6-7		
7-8		
8-9		
9-10	N1YLN	KB1TMC
10-11	KB1TMC	N1YLN
11-12		
Sunday		
12-1		
1-2		
2-3		
3-4		
4-5		
5-6	N1AKN	
6-7		
7-8		
8-9		
9-10	KC1IIL	
10-11	KC1IIL	
11-12		
12-1		
1-2		

**OPERATING & LOGGING SPOTS OPEN , PLEASE CONTACT ED N1LYN FOR  
PHONE AND BILL W1KKF FOR CW.**

**From Eric KB1EHE:**

**We just learned that Michael Genzel -- the President of Seminole Wire / JSC / Cable Experts and the manufacturer of the Sabertooth wire antenna -- will be swinging by MARC during our Field Day activities. He's curious to see how the antenna works in "real world" intense conditions and is intrigued by the whole concept of Field Day. (He's a technical guy, but not a ham...yet. LOL.) He has also heard through the grapevine (actually from John) about John's famous Road Kill grillin' at the infrared station. So maybe it's not the antenna or Field Day that he's really interested in. :-)**

**Michael will fly into Hartford, landing at 10:30am, then drive to Wallingford and spend the day with the club and fly back to Philly leaving at 6:00 pm."**

**Michael has been the Plant Manager of the company since 1999 and over the last few years also became the President. His is the only company in the U.S. that produces ladder line. They also produce and supply lot of the coax that you purchase through various distributors and retail outlets.**

**All of their products are "Made in the U.S.A." <http://www.seminolewire.com/>**

**73, Eric KB1EHE**





**SOLAR CELL FOR FIELD DAY BEING TESTED BY DAVE NZ1J**



**RECENT TORNADO DAMAGE TO THE FORMER DAYTON HAMFEST LOCATION, THE HARA ARENA. / AL N1API**

**THIS BEAR WAS RECENTLY SPOTTED RUNNING ACROSS HOPE HILL ROAD VERY CLOSE TO THE EOC....PLEASE BE CAREFULL AND DILIGENT BUT DONT GET HIT BY A BUS WHILE LOOKING FOR THE BEAR... PIX COURTESY OF KRISTIN KC1ISI**



**From N1API: For Immediate Sale**

**Yaesu FT-10000MP Mark V with matching FP-29 power supply. Also included the MH-31 Hand Microphone and FP1 remote control keypad.**

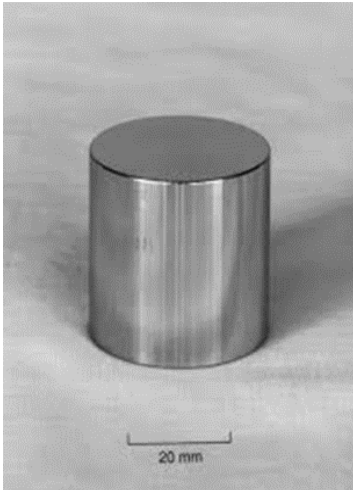
**The radio has all filters CW and SSB and Sub Receiver installed. I have all the manuals and also more in PDF, (including the service manual), which I will put on a CD for you.**

**I have the inside shipping boxes for the the radio and power supply.**

**This is a 200 watt radio, (adjustable from about 10 watts to full 200 watts from the front panel). It does true FSK, (RTTY). Send me a reply here or via my email address or see me at the club for special MARC Members Only pricing. This radio is a proven winner.**

# New on the scene – the “electronic” kilogram!

Reported by W1DQ



The kilogram is a unit of mass.

Originally defined as the mass of a liter of water at the ice point, it later became embodied in a single metal artifact stored in Paris whose mass was essentially the same. This standard was made from an alloy of platinum (90 percent) and iridium (10 percent) and called the International Prototype Kilogram (IPK). Copies of the IPK, were sent to the countries which had signed the international measurement agreement.

The problem with artifact-based standards is the need to protect them from handling wear plus the inconvenience of having to bring a secondary standard to another place in the world for comparison.

Today, measurement science has moved away from using physical objects or other substances as standards. New definitions are based on terms of constant nature that are applicable throughout the world. For example, the meter is now defined as the length of the path traveled by light in a vacuum during a time interval of  $1/299,792,458$  of a second. The former metal bar was retired.

On May 20, 2019, the artifact Kilogram was officially retired. The kilogram is now defined by taking the fixed numerical value of the Planck constant, symbolized as  $h$ , to be  $6.626\,070\,15 \times 10^{-34}$  when expressed in the unit Joule-seconds, which is equal to  $\text{kg m}^2 \text{s}^{-1}$ .

The effect of this definition is to define the unit  $\text{kg m}^2 \text{s}^{-1}$  that together with the definitions of the second and the meter leads to a definition of the unit of mass expressed in terms of the Planck constant  $h$ .

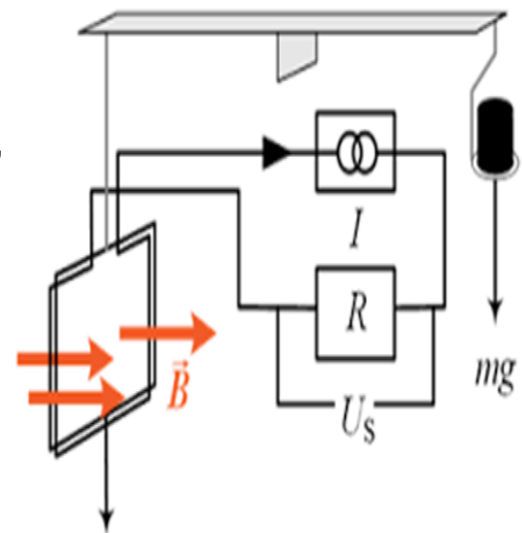
In practice, a Kibble (watt-type) balance is utilized to realize the definition of the kilogram. Measurements are taken both in device’s weighing mode and velocity mode.

In the weighing mode, the weight ( $mg$ ) of the artifact is balanced by the electromagnetic force produced, for example, on a circular coil of wire immersed in a radial magnetic field ( $B$ ) when current ( $I$ ) flows through the coil ( $R$ ). The current is measured when balance is attained.

In the velocity mode, the voltage ( $U$ ) that is induced across the terminals of the same coil moving vertically at a velocity ( $v$ ) through the same magnetic flux density is measured.

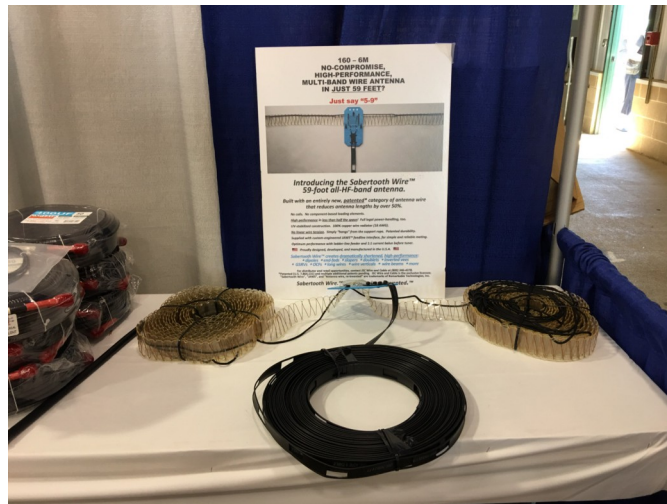
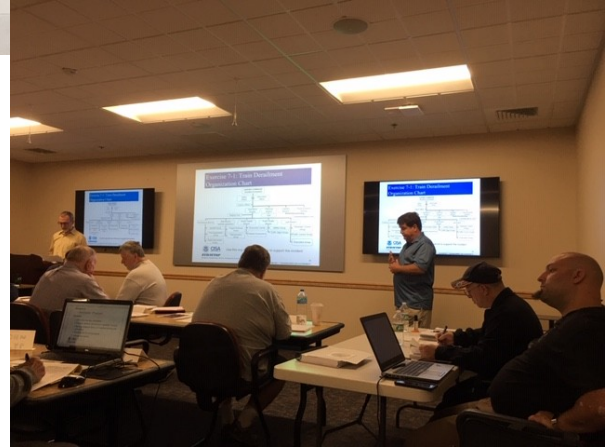
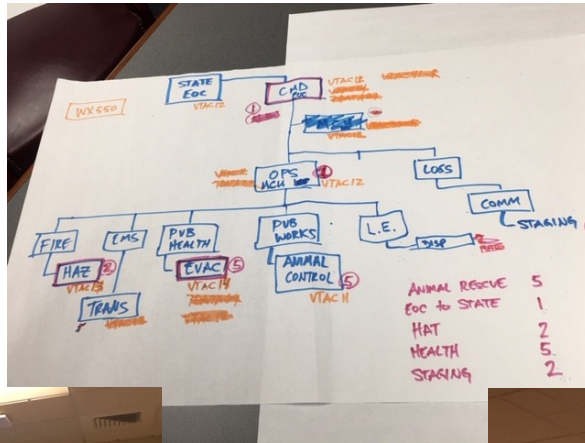
By including a velocity mode, the Kibble balance avoids the need to measure magnetic field flux density and coil

dimensions. With  $U$ ,  $I$ ,  $g$ , and  $v$  accurately measured, power-based (watt) calculations provide an accurate value for mass ( $m$ ).





**PRESIDENT ED W1YSM AND JOHN K1LYP ATTENDED A TWO DAY DHS AND CTSP AUXCOMM TRAINING SESSION SEMINAR 6/8-6/9 ..**



Eric KB1EHE rolled out his "Sabertooth" antenna at the Dayton Hamvention. Both the manufacturer of the antenna (Seminole Wire & Cable / JSC) and Quicksilver Radio displayed the antenna at their booths. Seminole / JSC reported a high level of interest all weekend, especially for individuals with space-limited lots and deed-restricted communities. The ability to work 160m in just 59 feet of space was particularly appealing. A number of hams were also intrigued with the thought they could work 160m with the antenna in their attics. The accompanying photo is the

Sabertooth antenna signage and display in the Seminole / JSC booth. John had similar signage in his sprawling exhibit space. Eric wants to give a special "shout out" to John N1GNV for helping with both the initial public exposure at Deerfield and the grand public roll-out at Dayton.

MARC and Eric have coordinated to use this multi-band antenna at our Field Day in June. You can also find out more information about the antenna here: [www.sabertoothwire.com](http://www.sabertoothwire.com)

## 10-10 Spirit of 76 QSO Party

This is a week long event that runs the Fourth of July week. The object is to work as many stations as possible on 10 meters with or without a 10-10 number on 6 modes. Score two points for each 10-10 QSO and one point for each non 10-10 QSO. A total of 12 points are available if you work a member on all modes. Here is a good chance to test your stations and antennas to see how it performs on modes and on frequencies you may not normally use it for. The modes are SSB, CW, AM, FM, PSK31, and RTTY. (Note: Because of the difficulty of exchanging 10-10 numbers via FT8 it has not been added in replacement of PSK).

The dates this year are from July 1st 0000 UTC to July 7th 2359:59. The 10 meter net can be used to exchange numbers for the party and this is about the only weekly net we ask members to give their 10-10 numbers on the net. The full information for this QSO party with all the details can be found at:

<https://www.10-10.org/Forms/Spirit.pdf>

### VE and Instruction:

Exam sessions are scheduled for July 13 and September 14. And of course a session is planned for the Nutmeg Hamfest on Oct 13.



**SATURDAY MORNING AT THE EOC**



**JEFF N1AKN HAS THIS THING FOR UNIQUE HAM CALL PLATES**







## SKY WARN TRAINING—MAY 8 —@ EOC



---

From N1API: For Immediate Sale

**Yaesu FT-10000MP Mark V with matching FP-29 power supply. Also included the MH-31 Hand Microphone and FP1 remote control keypad. The radio has all filters CW and SSB and Sub Receiver installed. I have all the manuals and also more in PDF, (including the service manual), which I will put on a CD for you.**

**I have the inside shipping boxes for the radio and power supply.**

**This is a 200 watt radio, (adjustable from about 10 watts to full 200 watts from the front panel). It does true FSK, (RTTY).**

**Send me a reply here or via my email address or see me at the club for special MARC Members Only pricing.**

**This radio is a proven winner forward to another great MARC Field Day!!**



# INFORMATION PAGE

# MERIDEN AMATEUR RADIO CLUB

**PRESIDENT.....W1YSM ED SNYDER**  
**VICE PRES.....KB1JL ERIC OLSSON**  
**SECT.....NZ1J DAVE TIPPING**  
**TRES.....K1WJL DAVE SWEDOCK**  
**STATION A.M...K1RCT ROB CICHON**

**MEETINGS: NORMALLY**  
**7:30PM ON THE 2ND & 4TH THURSDAYS OF THE MONTH,**  
**UNLESS OTHERWISE POSTED,**  
**AT THE HOPE HILL ROAD FIREHOUSE / EOC**  
**143 HOPE HILL ROAD, WALLINGFORD**

**KEY KLIX EDITOR DAVE SWEDOCK K1WJL**  
**CONTACT DSWEDOCK@GMAIL.COM**  
**203 235-8582**

**MAILING ADDRESS: MERIDEN AMATEUR RADIO CLUB**  
**POB 583, MERIDEN CT. 06450**

**CLUB NETS**

**6 MTR NET**                      **MONDAYS 8PM**  
**50.175MHZ**                      **N1ZN JIM**

**2 METER NET**                **TUESDAYS 7:30PM**  
**147.36 /RPT**                      **K1TDO TODD**

**10 METER NET**                **TUESDAYS 8PM**  
**28.375MHZ**                      **K1VDF JOHN**

**10/10 CASTLE CRAIG CHAPTER**  
**CONCURRENTLY WITH CLUB NET**  
**28.375MHZ TUESDAYS 8PM N1API AL**

**CLUB DUES STRUCTURE (JAN-DEC)**

**UP TO 64 YRS OF AGE--\$20/YR**

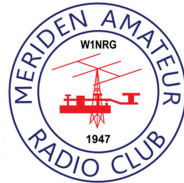
**SENIOR DISCOUNT 65 & UP--\$15**

**WEBSITE: (USE LOWERCASE)**  
[www.w1nrg.com](http://www.w1nrg.com)

**FORUM/BBS:**  
[www.w1nrg.com/forum/](http://www.w1nrg.com/forum/)  
 or go to website and follow links

**CASTLE CRAIG 10-10 WEBSITE:**  
 go to [www.w1nrg.com](http://www.w1nrg.com)  
 and follow the links

**CLUB REPEATER W1KKF/R**  
**147.36MHZ +600 OFFSET**  
**NO PL TONE (OPEN REPEATER)**



AB1DQ	James Surprenant	19	KC1IHK	Scott Mowerson	19	W1NHS	Fred Ring	19
AB1HB	Charlie Dudac	19	KC1IIL	Matt Mowerson	19	W1NNZ	William Kosche III	19
AF1HS	Art Fregeau	19	KC1ISI	Kristin Olsson	19	W1POP	Fred Liedke	21
K1IIG	Steve Tripp	19	KC1KQH	John Kasinskas	19	W1UFO	Mike Cei	19
K1JCF	Joe Farrell	19	KC1NS	Nancy Tipping	19	W1VCU	Nelson Denison	L
K1LHO	Mike Ash	19	KC1SA	Stephen Allen	19	W1XK	Stan Kugler	19
K1LYP	John Yusza	19	KE1AU	Robert Kaczor	19	W1YSM	Ed Snyder	19
K1MMK	Mike MacKennedy	20	KE1AY	Donald Mitchell	19	WA1FFT	Ray Irwin	19
K1MVM	Mike Macri	19	KE4EYA	Ralph Ring	19	WA1JKR	John Rogus	20
K1PU	Mark Mokoski	19	KR1U	Bob Eslinger	19	WA1SFH	Douglas Sharafanowich	19
K1RCT	Rob Cichon	19	N1API	Al Kaiser	19	WA1TRY	Rich Aubin	L
K1STM	Anne West	19	N1AKN	Jeff Dwyer	19	WA1ZVY	Jim Martin	19
K1TDO	Todd Olsen	19	N1BF	Patrick Dionne	19	WB1GGP	Jerry Shepard	19
K1THP	Dave Karpiej	19	N1BRL	Bart Toftness	19	WB1GYZ	Bob Biancur	19
K1VDF	John Blevins	19	N1GNV	John Bartscherer	19	WB8IMY	Steve Ford	20
K1WJL	Dave Swedock	19	N1GY	Geoff Haines	21	WV2LKM	Steve Waldmann	19
K1XJ	Kevin Buchanan	19	N1HCA	Susan South	19			
KB1EHE	Eric Knight	19	N1LGH	Barbara Stone	19			
KB1HCC	Jonathan Winslow	20	N1MOB	Dan David	19			
KB1IFZ	Elsie Mathews	19	N1NAN	Helen Spokes	19			
KB1JL	Eric Olsson	19	N1OKF	Bob Parisi	19			
KB1MFU	John Ramadei	19	N1OKR	Frank Ciccone	19			
KB1ORB	Mark Noble	19	N1POP	Greg Ploski	19			
KB1TMC	Clare O'Lena	19	N1YLN	Edward O'Lena	19			
KB1YFJ	Glen Couture	19	N1ZN	James Savage	19			
KC1DOY	Ted Renzoni	19	NZ1J	Dave Tipping	19			
KC1FJJ	Richard Nagy Jr.	19	W1DJB	Dylan Barrett	19			
KC1HDB	Jeff Martin	18	W1DQ	John Elengo	19			
KC1HFO	John Stoidis	19	W1KKF	Bill Wawrzeniak	L			