

We're Back!



Agenda



- Introductions
- Club reports
- Summary of the past year+
- Club business & upcoming events
- Field Day wrap-up
- Repeater Status (Terry, KA8SCP)
- Tesla coil demo (Steve, W1KBE)

While You Were Away...

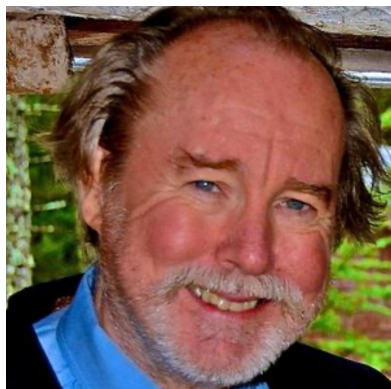


- Two Field Days!
- 15 online meetings!
- Bob, W1IS, and Bob, KC1DSQ, won the June 2021 QST cover plaque award!
- Many foxes hidden and found!
- Monthly breakfasts have resumed!
- 84 PART members!

In Memorium



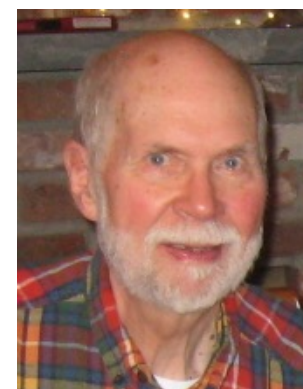
Jeff McCleman
KD1IT (SK)
1957 – 2020



Jim Rickman
KC1JXL (SK)
1945 – 2020



Joseph Connell
WA1UYR (SK)
1928 – 2020



Bill Churchill
AA1O (SK)
1937 – 2021

Upcoming Events



- New England Division Convention
 - Marlborough, MA
 - September 10 – 12
- New England Division Director Elections
 - October – November
- Boston Marathon
 - October 11

PART To-Do List



- VE Sessions
 - Start in two months (?)
 - Led by Alan, K1ALL
 - VECs
- Live-Stream Meetings?
- School Liaisons



Field Day 2018

- June 26 – 27
- Concord Rod & Gun Club, Concord, MA
- And Home!

Highlights of Field Day 2021



- 71 attendees on-site
- At-home operators contributed to score
- Hot!
- Efficient setup & teardown
- Limited CW operations
- 421 contacts in 42 states, Canada, and Bermuda
- Two satellite contacts
- New phone tent – thanks Colin & Bonnie!

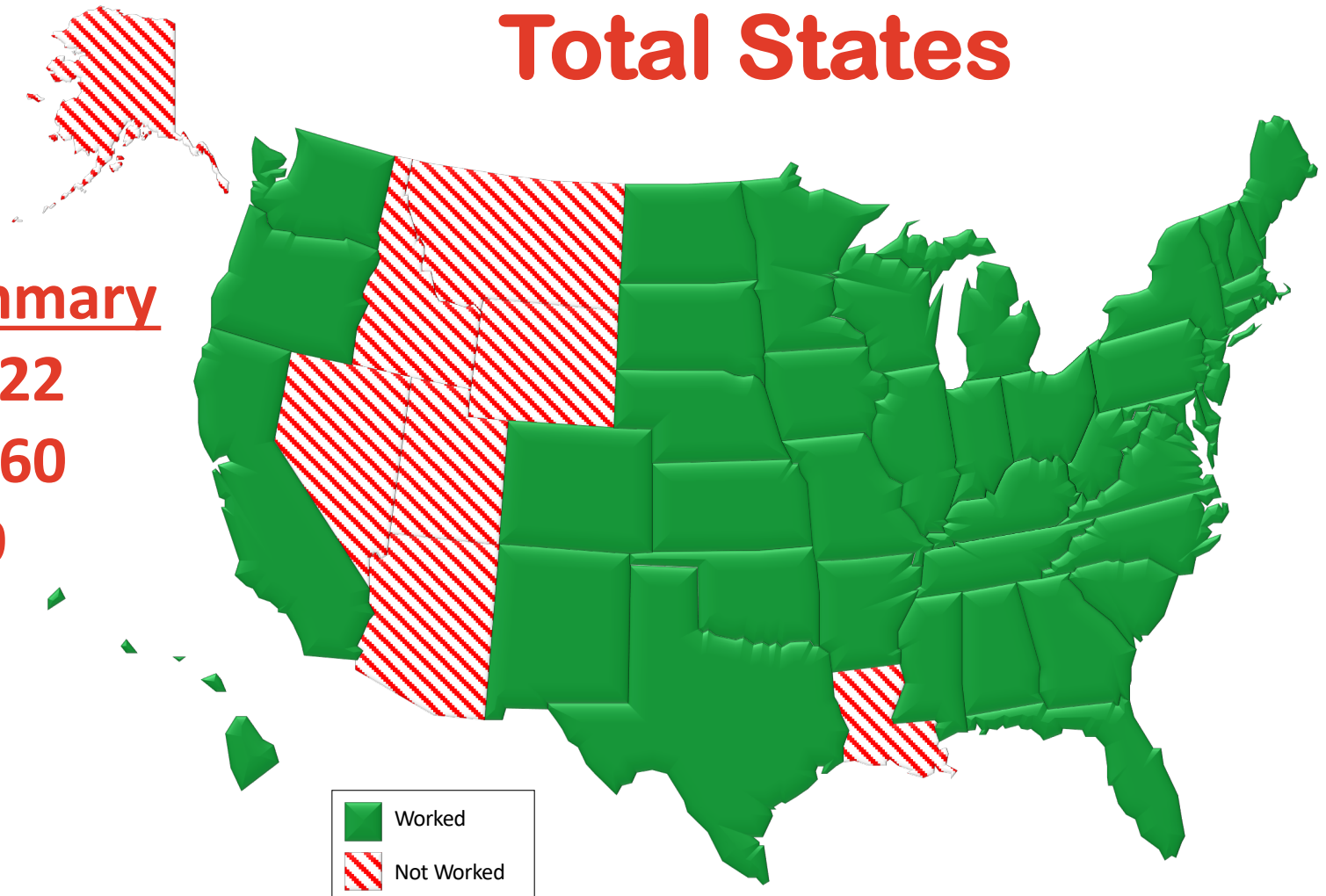
Total States

Contact Summary

Phone: 222

Digital: 160

CW: 39



The Police Amateur Radio Team of Westford, Massachusetts, takes pleasure in presenting the

Master DX-er Award

To

Colin Brench, W1DJR

Bonnie Brench, AC1Y

For meritorious achievement in establishing two-way communications with Hawaiian Amateur Radio Station KH6RS, at a distance of over 5,010 miles, from the Police Amateur Radio Team (PART) of Westford's Phone station located in Concord, Massachusetts, during the 2021 ARRL Field Day event. This was the farthest contact established at Field Day.

June 27, 2021



George Allison, K1IG, Field Day Chairman

Bonus Points



- | | |
|---|--|
| <input checked="" type="checkbox"/> Emergency Power | <input checked="" type="checkbox"/> Public Info Table |
| <input checked="" type="checkbox"/> Satellite QSO | <input checked="" type="checkbox"/> Site Visit by Elected Off. |
| <input checked="" type="checkbox"/> Natural Power | <input checked="" type="checkbox"/> Message Handling |
| <input checked="" type="checkbox"/> W1AW Bulletin | <input checked="" type="checkbox"/> Message to Section Mgr. |
| <input checked="" type="checkbox"/> Youth Participation | <input checked="" type="checkbox"/> GOTA Bonus |
| <input checked="" type="checkbox"/> Web Submission | <input checked="" type="checkbox"/> Social Media |
| <input checked="" type="checkbox"/> Public Location | <input checked="" type="checkbox"/> Safety Officer |

1,550 Bonus Points!

Scores



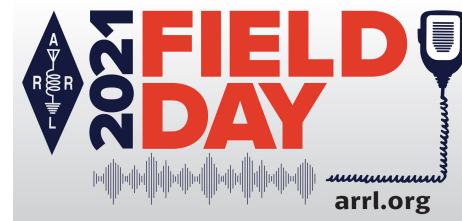
- Club claimed score (on-site): 2,824 points
- Home stations contributing points:
 - Bammi, K1JBD
 - Peter, K1PAK
 - Jim, KB1SEQ
 - Bob, W1IS
 - Carl, WG1V

Official scores will be posted in December

Field Day Antenna Crew



Field Day Feasting

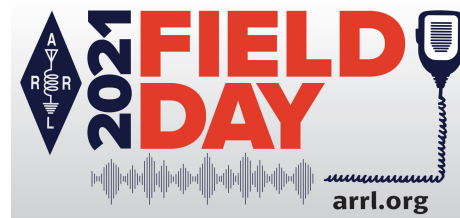


Food Crew
Charlie, W1ADL
Rick, W1RAG
Susan, WB2OSY

Catered Food!



Concord CW Response Team



The Police Amateur Radio Team of Westford, Massachusetts, takes pleasure in presenting the

Band Burner Award

To

Steve Rimsa, W1KBE

For meritorious achievement in high speed telegraphy from the Police Amateur Radio Team (PART) of Westford's CW station located in Concord, Massachusetts, during the 2021 ARRL Field Day event. His deft action on the CW key was so rapid that the twenty-meter band was set ablaze, and very fabric of time and space was torn asunder. Such an amount of heat was generated by his kinetic keying that the immediate response of the Concord Fire Department was required to extinguish the flaming ether and restore order in the cosmos.

June 27, 2021



George Allison, K1IG, Field Day Chairman



© KA8SCP



WB1GOF Repeaters

SUMMER 2021 STATUS AND UPDATES

Our Inventory today

Prospect Hill Water Tower - Westford

<https://www.topozone.com/massachusetts/middlesex-ma/summit/prospect-hill-31/>

Coordinates: 42.5767583°N, -71.4411746°W

Approx. Summit Elevation: 449 feet (137 meters)

PART/WB1GOF repeater info link: <http://wb1gof.org/repeaters/>

- ▶ 146.955
 - ▶ FM Analog
 - ▶ -600 KHz, 74.4 PL in/out
 - ▶ Echolink node: 380789
- ▶ 145.330 & 442.450
 - ▶ D-STAR
 - ▶ Internet linked

On the plate

146.955 Repeater:

- ▶ 146.355 input gets desensed by the output of 145.330
 - ▶ Additional “can” and attenuation has reduced effect, but not eliminated
 - ▶ Next step is the put a notch-filter on the output of 145.330 to minimize any extraneous, outside of the bandwidth required.
 - ▶ Will look at completed redesign of front end; maybe move from duplexer-style to “combiner”?
- ▶ Found the errant powerpole connection that had some contact resistance and melted the connector housing causing a failure.
 - ▶ Connectors removed and new, large powerpole connectors installed.
- ▶ Move Echolink connection to 955 repeater site
 - ▶ Interface to SCOM

On the plate

145.330 D-STAR Repeater:

- ▶ 146.355 input gets desensed by the output of 145.330 (see previous slide)

442.450 D-STAR Repeater:

- ▶ No outstanding issues

Common D-STAR:

- ▶ Add lost password recovery option
- ▶ Fix outbound email

On the bench

DMR Repeater

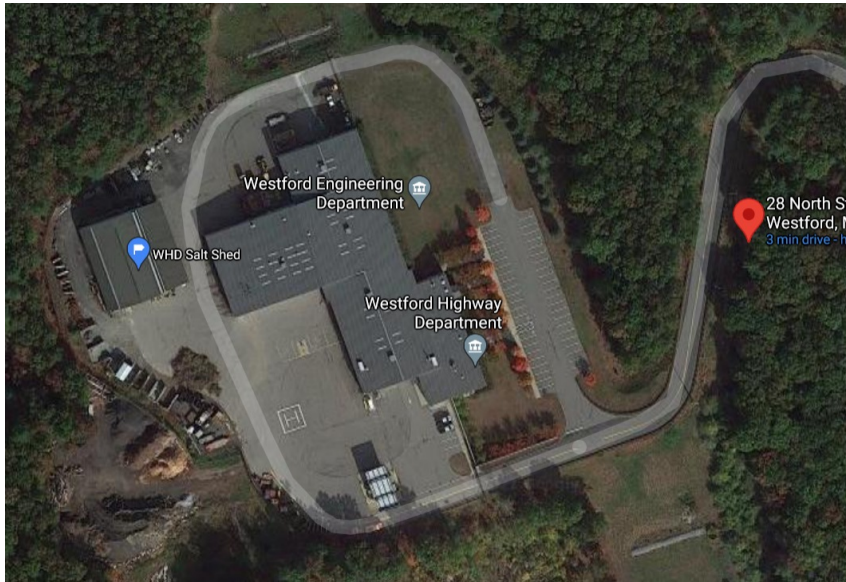
Relocation of Beverly N1PA to Westford

- ▶ 146.450: -1.5MHz offset, CC1, Brandmeister Network #[312528](#)
- ▶ Location: 28 North St, Highway Garage - Salt Shed

On the air now

- ▶ Limited coverage
- ▶ Westford Center & Graniteville





New site – Westford Highway Garage, Salt Shed

Initial Settings

CC1

146.450 (-1.5 MHz)

TS1: 3139 OH SW; 31801

Gathering Spot; 302050 XLX416D;
9990 Parrot

TS2: 3125 MA SW; 3133 NH SW;
39276 EWARN; 312543 XLX978D

© KA8SCP

| Time | Master | My call | Destination | Options | RSSI |
|------------|--------|--------------------------|----------------------|---------|---------|
| 21 Seconds | 3102 | KA8SCP [Terry] (3125049) | New Hampshire (3133) | TS2 DMR | S9+30dB |
| 24 Seconds | 3102 | KA8SCP [Terry] (3125049) | New Hampshire (3133) | TS2 DMR | S9+30dB |
| 9 Minutes | 3102 | KA8SCP [Terry] (3125049) | Parrot (9990) | TS1 DMR | S9+30dB |
| 10 Minutes | 3102 | KA8SCP [Terry] (3125049) | Massachusetts (3125) | TS2 DMR | S9+30dB |
| 10 Minutes | 3102 | KA8SCP [Terry] (3125049) | Massachusetts (3125) | TS2 DMR | S9+30dB |

Steps to getting on the air

DMR Repeater

NESMC Frequency relocation of Beverly N1PA to Westford

- ▶ Coordination via NESMC
- ▶ Construction Phase
- ▶ Trial Phase
 - ▶ To insure non-interference with other systems
 - ▶ Local interference issues
- ▶ Final coordination

Timeframe: 60-90 days

Future updates via groups.io: <https://groups.io/g/wb1gof-dmr/>



Nearby DMR repeaters

| CITY | FREQ | PL | CALL | DIST | SPONSOR | NOTES |
|--------------------|----------------|-------|--------------|--------------|--|---|
| Chelmsford, MA | 145.180 | | N1IW | 3.9 | NEDECN.org | O L(NEDECN) DMR:CC2 |
| Acton, MA | 146.420 | | NO1A | 7.7 | NO1A | O (NEDECN) DMR:CC1 e |
| Sudbury, MA | 146.470 | | K1IR | 12.9S | New England Digital Emergency Communication Network | O L(NEDECN)rs WX DMR:CC0 |
| Pelham, NH | 146.500 | | W1STT | 13.7N | W1STT | O BM DMR:CC1 |
| Hudson, NH | 145.260 | | K1MOT | 16.1N | Motorola Amateur Radio Club - New England | Oe L(NEDECN) DMR:CC5 |
| Hudson, NH | 147.105 | 88.5 | NE1B | 16.1N | Repeater Research Assn. | O 88.5e L(E15837 NEDECN) DMR:CC0 |
| Reading, MA | 146.470 | | KE1V | 16.9E | New England Digital Emergency Communications Network | O L(NEDECN) DMR:CC10 |
| Lawrence, MA | 147.015 | 88.5 | N1EXC | 17.6E | N1EXC | O 88.5 DMR:CC1 |
| Southborough, MA | 145.270 | | AE1C | 21.2S | EMC Amateur Radio Club | O L(NEDECN) DMR:CC7 ex WX |
| Derry, NH | 145.310 | | K1QVC | 23.1N | Southern New Hampshire Dstar Group | O L(NEDECN) DMR:CC1 |
| Holliston, MA | 145.140 | | W1DSR | 24.3S | Digital ARC., W1DSR | O L(MITCOM) DMR:CC1 |
| Holliston, MA | 147.375 | 136.5 | W1DSR | 24.3S | Digital ARC | O 136.5 146.2e L(MITCOM) D-STAR NXDN FUSION DMR:CC8 |
| Chester, NH | 145.190 | | K1OX | 26.2NE | Theodore R. Gamlin | O L(NEDECN) DMR:CC9 |
| Gardner, MA | 145.340 | 100.0 | N1WW | 27.8W | Mohawk Amateur Radio Club | O 100.0 L(DMR-MARC) DMR:CC3 e |
| Goffstown, NH | 145.200 | | N1PA | 29.0N | Emergency Warning Amateur Radio Network | O L(EWARN/BM) DMR:CC1 |
| Beverly, MA | 146.450 | | NN1PA | 29.0E | Emergency Warning Amateur Radio Network | Oe L(EWARN/BM) DMR:CC1 |
| Goffstown, NH | 145.220 | | KM3T | 29.1N | NEW ENGLAND DIGITAL EMERGENCY COMMUNICATIONS NETWORK | O L(NEDECN) DMR:CC11 ex |
| Marblehead, MA | 145.370 | | K1XML | 29.4E | New England Digital Emergency Communications Network | O L(NEDECN) DMR:CC0 e |

Wrap Up

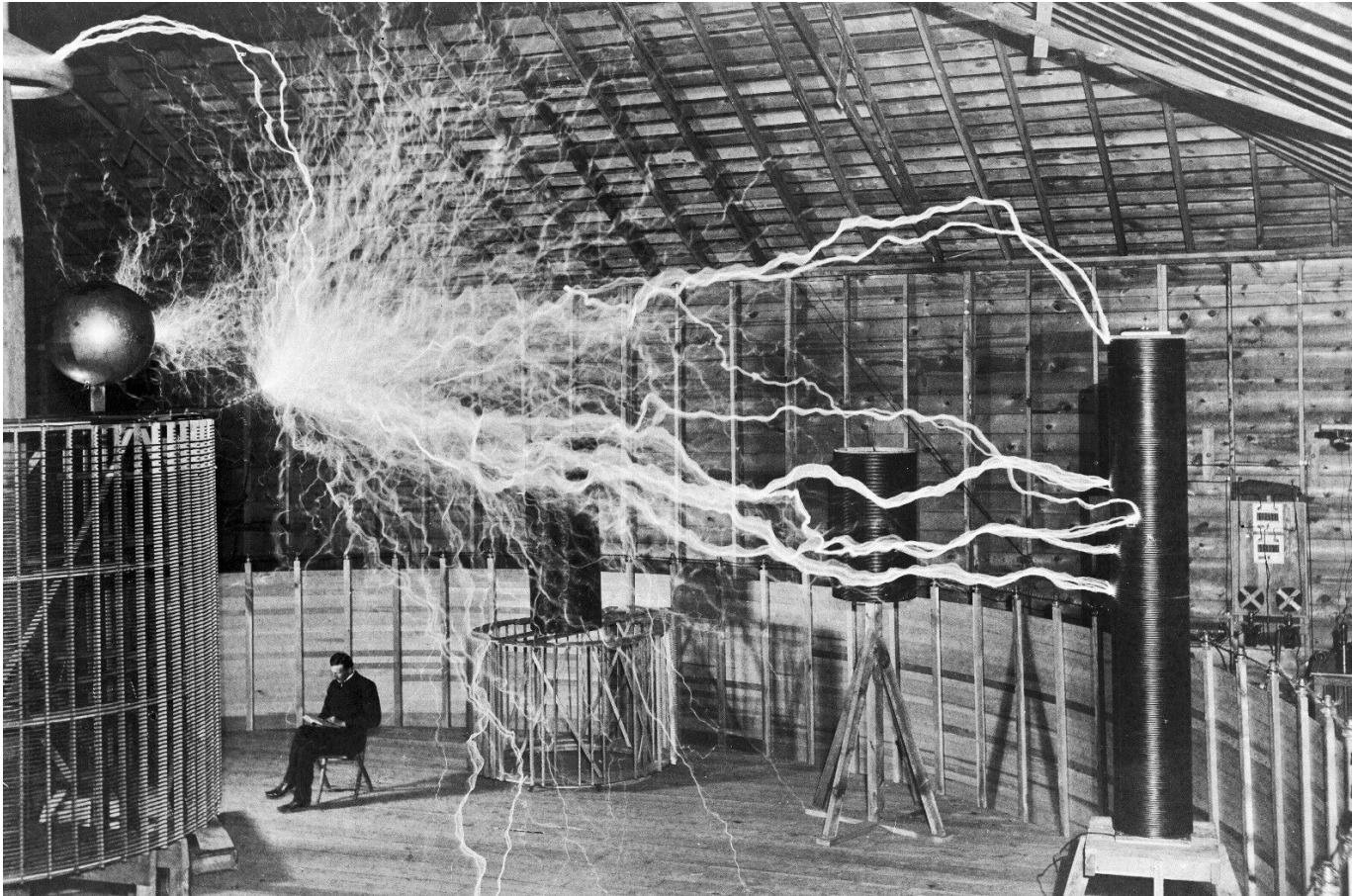
Questions?
Comments?
Concerns?

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Tesla Coil Demonstration



Tesla Coil Demonstration



Operating Frequency: 410 kHz

Tubes: 572B Matched pair

Plate voltage: 2200 Volts

Operating current: 200 TO 600 ma

Power Input at 500 ma ~ 1100 Watts

Estimated voltage output: 250,000 Volts

