

# CAARA NEWS



Cape Ann Amateur Radio Association  
June 2017 Edition



## PRESIDENT'S COLUMN

by Jon- K1TP

Another month and another issue. I have been creating these newsletters with a program called Aldus Pagemaker 7.0, which runs on Windows XP. I bought a new laptop, a Dell XPS 14 running Windows 7 and find the Pagemaker program will not run on it....instant panic. I have been desktop publishing with it for over ten years, the program that replaces it costs \$25.00 a month, you cannot buy it outright, you have to lease it! That was not going to happen.

I did a little online research and found a program called PagePlus 9.0 that was \$24.95, marked down from \$119.00, as a new version was coming out under a new product name. I must say, it does a nice job considering that Aldus Pagemaker software cost around \$700.00 in the day, this program does all I want it to do. A small learning curve as I produce this newsletter but it will get easier in the future.

Back to ham business, we have been busy helping with local road races and getting ready for Field Day. This year we are trying something a little different- two Field Day locations. For the traditional field day ham, we will be operating from a portable location under generator power just like the good old days. The location is the town park on the top of Summit Avenue in Rockport.

For the fluff and buffer, like myself, we will run Field Day stations at the club house. Safe and sound, no setup needed, kitchen and bathroom right there. So pick your Field Day, or go to both! More details as we get closer to Field Day by caaramail and by listening to the Sunday evening net. Lunch and dinner cookouts are planned at the CAARA clubhouse during the event, all are welcome.

After Field Day, things will quiet down at the club during the busy summer months. The club is still

available for use and we plan to be open Tuesday night and Sunday mornings.

## INFORMATION DESK

By Dean- KB1PGH

Well lets start off with a reminder that the annual ARRL Field Day weekend is coming on Saturday June 24th through Sunday June 25th. The ARRL Field day event started in the 1930's and each year over 30,000 hams nationwide participate in this 24 hr event. The main goal is to have fun operating HF portable. Of course now it has morphed into a 24 hr contest and emergency communications exercise with a little public relations mixed in.



If you are new to the hobby I do have a little advice. Don't try to take field day too seriously. Don't turn field day into a blood sport where you feel that you have to get a billion points and put on some sort of show. Please just try to have fun getting together with your friends and talking on the radio. If you feel like you "Have" to do something then you have already gone too far. Take our time to experiment with different radios and antennas. You can try out new spots to operate from as well. Take the time to have a cookout or shut the radios off and enjoy a dinner or breakfast with your ham friends. Don't forget that you can operate alone as well as you give away points to others. So if you just got your license and have the time that weekend I would highly recommend getting on the air. It's a lot of fun if you keep it simple.

A couple of CAARA club reminders that the monthly Board of Directors meeting will be held on Wednesday, June 7th at 7:30 at the clubhouse and the monthly members meeting will be held the following Wednesday June 14<sup>th</sup>, at 7:30 at the clubhouse as well. The members meeting should cover the CAARA field day plans. So

(Cont. Page 3)

**CAARA Newsletter**  
**Cape Ann Amateur Radio Association**  
**6 Stanwood Street**  
**Gloucester, MA 01930**

CAARA Newsletter is a monthly publication of the Cape Ann Amateur Radio Association (CAARA).

It is the policy of the editor to publish all material submitted by the membership provided such material is in good taste, relevant to amateur radio and of interest to CAARA members, and space is available. Material is accepted on a first come, first serve basis. Articles and other materials may be submitted by internet to Jon at k1tp@arrl.net. If possible, material should be in Word format. Material may also be submitted as hard copy to Jon-K1TP or any Club Officer.

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Jon Cunningham- K1TP Editor  
Dean Burgess- KB1PGH Reporter

**Board of Directors- 2016/17**

President: Jon Cunningham K1TP  
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Clerk: Dean Burgess KB1PGX

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David Linsky- N1CDL  
Ross Burton- W1RAB  
Jake Heard W1LDL  
Hank McCarl W4RIG  
Chris Winczewski- K1TAT

**Welcome to CAARA:**

CAARA, an ARRL affiliated club, operates the 2 meter W1GLO repeater on 145.130 MHz with antennas located on the ATT cell tower in the Blackburn Industrial Complex in Gloucester Massachusetts. It has an average effective radius of 60 miles, and serves Eastern Massachusetts, Cape Cod, Rhode Island, Southern New Hampshire, and maritime mobile stations.

CAARA also operates the W1GLO repeater on 224.900 located at the CAARA clubhouse.

The former W1RK 443.700 repeater is now on the ATT cell tower in the Blackburn Industrial Complex with greatly enhanced performance.

The Association is one of the few amateur radio clubs that has its own clubhouse. Located at 6 Stanwood Street in Gloucester, it includes a permanent HF station with beam, vertical/wire antennas along with an operating 2 meter packet station as well as 2/440 meter voice and 220 MHz Transceivers.

Amateur radio exams are held on the second Sunday of each month at 10:00 AM at the CAARA clubhouse. Anyone who is considering a new license or an upgrade, is welcome to test with us. There is no pre-registration necessary. Contact the head of our VE team Rick Maybury if you have any questions about monthly testing.

Monthly member meetings are held on the first Wednesday of each month at 7:30 PM except for July and August.

Each Sunday evening at 9:00 PM, the club operates a 2 meter net on 145.130. This is an open and informal net which disseminates club news and prepares operators for emergency communications work. All are invited to check into the net as club membership is not a requirement.

New! The club is open every Tuesday from 5-8PM for CAARA members to stop by and socialize, as well as use the extensive collection of ham radio gear.

moving on I think I'll cover a different topic for this month. This will be directed towards all the new "Techies" out there.

So you turn on your brand new rig or hook up your brand new antenna for the first time and you hear barely anything on the bands and you thin that your radio and antenna is broken or is subpar well think again. Don't forget that it just may be the propagation conditions may be lousy that day. Take sometime to learn the physics of propagation. Such as do you know why the sun has "Coronal Holes" that eject large masses of radiation that affect the earths ionosphere? Do you know that we are going into the bottom of a solar cycle with no sunspots for a few years?I would recommend taking some time to learn the reasons why you are not going to be able to talk around the world perfectly everyday. Some days are going to be better than others.

Here's a hint that will help you as well. Just because you don't hear any activity on a band does not always mean that the band is "dead". Start calling CQ for a while and see what happens. You can always try another band if the band your listening seems quiet. `t forget 10 and 6 meters too! Just because that we are in the bottom of a sunspot cycle doesn't mean that they are dead all the time. You can always look on real time propagation maps online and if you have a band scope on your radio the better. The main point is just don't give up quick. A band can stay closed and then open sometimes quickly.

Good luck on field day and keep on listening!  
73,  
Dean Burgess KB1PGH- ARRL EMA PIO

## Memory Lane

**1957 Chrysler 300C Convertible**



**1958 Edsel Pacer**



This is quite a trip down memory lane. But...average 60 to 100 HP, oil change and 23 Zerk fittings to grease every 1,000 miles, no safety glass, no seat belts, no self-adjusting brakes, no power steering, no air conditioning, 15,000 mile tire life and a monthly salary of \$400 for the average worker. Still...lots of style and they all didn't look alike and there were 15 or 20 major manufacturers.

**1951 Chevrolet Fleetline**



**1959 Chevrolet Impala Sport Coupe**





# New refrigerator in the CAARA Kitchen



## Team work in action at CAARA

Bob Spanks was checking the club refrigerator one Sunday morning and noticed it was not maintaining a very cold temperature, especially in the freezer section.

He reached out by CAARA mail to the membership and asked if anyone had a spare refrigerator...and he received several donation offers. This one is nearly new and was donated by club member Dennis Daulton.

It arrived at the club and was delivered to the first floor but would not fit thru the interior kitchen doorway. It would need to go back outside and get transported around the building and brought in thru the exterior door. Ross's girlfriend, Christine, came to the rescue and skillfully moved it around and installed it. Dave Linsky-N1CDL helped move out the old one. Nice job!



# Enlightenment

By Curtis- AA3JE

Many people, especially as they get older, suffer from vague spiritual longings.

You know, “where did I come from, why am I here, where am I going?”

I know the answer, of course, “I’m going to the Rockport Transfer Station”.

The Transfer Station is a source of great wisdom. It teaches the the futility of man’s desires, the impermanence of all things, the cycle of life (in and out of the Swap Shop), but the real benefit is you might get to speak to the staff. The staff see all the town come and go, and watch the endless human drama, and learn wisdom.

So when the Transfer Station staff speak, the wise listen!

“Hey, Doc, yuh got sumpthing dragging under your truck.”

Recognizing a divine imperative, I got out and looked. Alas, it was the “AIR DAM” again. The AIR DAM was very much in vogue a decade ago, it was supposed to increase gas mileage, so the car and truck makers put one on every vehicle, even one’s like my truck, which has the overall aerodynamic smoothness of a cinder block. (HMMM, no, a cinder block is MORE aerodynamic).

Realizing it might hang up on curbs (every single time), they made it of flexible plastic, and just snapped it into slots in the bumper, fastening it at the ends with two small screws. The result, of course was that each week I ran it over the curb, it snapped loose, and each week I would repair it. Finally, I had made two brackets for it, and bolted it in good and tight. But evidently one of the brackets had torn loose.

“I know, it comes off all the time.”

“Er, how much you drive this thing?”

“About 1500 miles a year.”

“You cud take it off dere.”

“There are difficulties.”

“How hard could it be? Undo the bolts and rip the sucker off!”

That is how enlightenment works, a sudden burst of inspiration! A flash that you have approached life in a wrong way, that life is change, you need to change!

So I drove home, scraping and dragging, and went downstairs to get the nice new socket set. It has ¼, 3/8, ½ inch sockets, inch AND metric, all in a sweet case which has a place for every single one of the three handles, 36 sockets and 9 accessories. It also has a cheap plastic catch that fails every time you pick it up, and dumps the whole thing on the garage floor. All OVER the floor.

After a half hour with a broom, a magnet on a stick, and cleaning each socket so I could stuff it in it’s proper hole, I dragged the thing out to the truck.

Now here is a tip! Ace sells really nice, really cheap, STAINLESS STEEL nuts and bolts. Do not be tempted to buy ordinary steel bolts. THEY RUST! Godzilla on a good day could not get those things undone, not after the road salt got to them!

So, back downstairs and find the hacksaw. Neglect to notice that there is no room for hacksaw frame. To lazy to go back downstairs for tape to wrap hacksaw blade, or get the “shorty” handle. Remove blade, hold in hand, start sawing.

Hit unseen obstruction. Pause to scrub out deep cut in palm. Apply antibiotic ointment, search for clean dressing. Bleed a little.

Apply dressing, find “Handy-Spot, Crime Scene Cleanser”, clean up blood spatters and blood trail. Go back outside. If the police ever spray “Luminol” in my house, they will think they have uncovered a mass murder scene.

Realize that if I turn the truck wheel, I can get a good shot with the hacksaw. Reassemble hacksaw. Saw



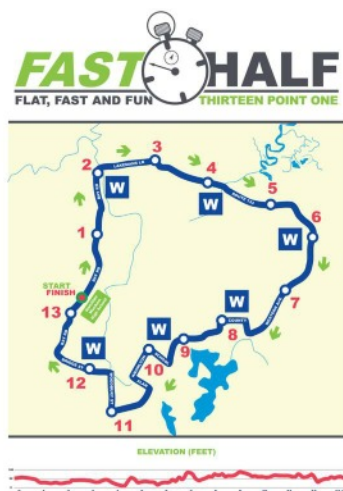
furiously. Cut both bolts. Pull. Nothing happens. Pull harder. Nothing happens.

Lose temper, scream curses in English, Korean, and Coptic. Lose focus. Pull so hard I end up falling backwards on bottom. Look up and find neighbor peering at me to see if I am damaged. I am, but not from the fall.

“You got it off.”

I looked, and indeed, I had removed the offending plastic bit.

The road to spiritual enlightenment is a hard road.....



## YUKANRUN EVENT

### Hamilton- Wenham Race

CAARA provided communication for the race event held on Saturday, May 13.

The event was handled by Chris- K1TAT and the following hams assisting: Jon- K1TP, Ron- N1RJB, Charlie- , and Matt- KC1AEI



Route 133 in Ipswich



This was mile marker three on Route 133 in Ipswich, runners spread out for a mile.

## TECH IN A DAY- MAY 13

Another successful day of teaching and testing at the club led by Rick- WZ1B and assisted by Jon- K1TP and Dave- KD1NA during the study portion. Larry- AJ1Z, Ron- N1RJB, and Ross- W1RAB. 15 of 18 passed the exam!





# Field Day 2017



Field Day at the club last year

THE ACTUAL CONTEST OFFICIALLY STARTS SATURDAY, JUNE 24th AT 2:00 PM, BUT WE WILL BE COOKING OUT AT NOON AT THE CLUB TO KICK THINGS OFF. THESE PHOTOS ARE FROM LAST JUNE FIELD DAY AT THE CAARA CLUB BUILDING.

This is a great opportunity to try contesting and make a lot of contacts around the country. We encourage new hams who have not been on the HF bands yet to stop by and participate. Even if you hold a technician license you can operate on the HF bands with a club member holding a general or higher class license present while you operate.

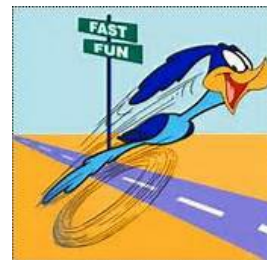
We plan on holding a pancake breakfast on Sunday morning around 9 AM at the club to start the final contest day off. The contest ends at 2PM on Sunday afternoon.



Pictures from previous Field Day's- on the right a portable Field Day in Essex

# Public Service by C.A.A.R.A. YuKanRun 5K and Half Marathon

*By David Linsky N1CDL*



Today marks the first of many YuKan Run road races for the 2017 season.

CAAARA was very well represented this Sunday morning. We all did what we do best, which is to provide a vital radio communications network to help insure the safety of all participants at public service events throughout Cape Ann. Doing this frees up the Police & Fire frequencies.

Several CAARA members, all Amateur Radio Operators, manned check points along the route for two road races this Sunday morning from 7:30 am. to 1:00 pm.

We all watched carefully for any issues that may have arisen during both races. If an issue did happen to occur with any of the runners, we would immediately radio the details in to our Incident Command contact (who is also a CAARA member-Amateur Radio Operator) and was paired up with the race coordinator to quickly resolve the issue. Happily, both races went smoothly.

The 5K road race began at the O'Maley Middle School at 8:00 am, which is located at 32 Cherry Street in Gloucester. It looped around Gloucester's Riverdale neighborhood and finished back at O'Maley Middle School.

The Half Marathon also began at the O'Maley Middle School and started at 9:00 am. Its route followed along the entire length of Washington St. through the Riverdale, Bay View, and Lanesville neighborhoods of Gloucester.

The runners continued on this same road (which is now Granite Street) into Rockport all the way to Cathedral Ave., down Haven Ave., the full length of Phillips Ave., then back out on to Granite Street heading back towards Gloucester.

The runners continued over the Rockport Town Line back into Gloucester following the same route (Washington St.) that brought them all into Rockport. They followed Washington St. all of the way back to where they started, at O'Maley Middle School. This race had 480 runners.

Cape Ann Amateur Radio Association Members who participated in today's road races were;

Hank W4RIG

Curtis AA3JE

Bill W1OKD

Nate KB1VST

Bill W1WMM

Chris K1TAT (& Co-Pilot and future Ham) Deb

Charlie KC1BAZ

Matt KC1AEI

Dave Linsky N1CDL

Special appreciation goes to Chris K1TAT for your many hours of planning, coordinating, and insuring that all went smoothly during both races. Chris, you made everyone at CAARA proud of you and all of your fine efforts this morning.

Well Done!



# BACKSHORE 5 MILE RACE



CAARA provided race communication on May 18, Thursday evening at 6:30pm. The outside temperature was close to 90 degrees but all went well without any incidents of dehydration.

The net control was Chris- K1TAT and the band of regular CAARA volunteers. The race started at the wooden bridge area on Good Harbor Beach.

Race volunteers included Ross- W1RAB, Hank- W4RIG, Gabriel Ricker- KB1OKU, and Matthew Knowles- KC1AEI. They manned the mile markers and also staffed the tail car.

# Motif 1 Race



CAARA provided race communications for health and welfare of the runners on Saturday, May 20 at 9AM in Rockport. The race consisted of a one mile fun run and a 5K race, we provided communications for the 5K.

Participating were Jon- K1TP as net control, Curtis- AA3JE as the tail car/incident command, Hank- W4RIG on mile marker 1, Matt- KC1AEI on mile marker 2, and Bill- W1WMM on mile marker 3.

The race went very smoothly, sunny and a cool 65 degrees, a perfect day for public service.

# CAARA ROAD RACE SCHEDULE FOR 2017

## Yukanrun Races done by CAARA

<del>Fool's Dual- half marathon and 5k</del>	<del>Gloucester</del>	<del>April 2, 2017</del>	<del>8am</del>
<del>Fast Half- half marathon</del>	<del>Hamilton-Wenham</del>	<del>May 13, 2017</del>	<del>8am</del>
Twin Lobster- half marathon and 1 mile	Gloucester	June 4, 2017	8am
Parker River- half marathon	Byfield	July 9, 2017	8am
Triple Threat- 1 mile, 5k, half marathon	Rockport	August 6, 2017	8am
Half Marathon by the sea- half marathon	Manchester	September 24, 2017	8am
Ocean View- half marathon and 5k	Ipswich	November 5, 2017	8am
Happy Holidays- 2.62 and half marathon	Gloucester	December 3, 2017	8am

**NOTES:** These races are covered by having a person at start/finish line acting as net control, one ham each in the lead and tail car, and a ham operating in the roving incident command car with Phil, the race organizer. A total of four ham volunteers can meet the minimum requirement for Yukanrun. Any additional help we can get will be placed strategically around the race course.

## ADDITIONAL RACES CAARA has committed to do:

<del>"Gabriel Rieker" Backshore- 5 mile</del>	<del>Gloucester</del>	<del>May 18, 2017</del>	<del>6pm</del>
<del>Rockport Motif Day- 5k</del>	<del>Rockport</del>	<del>May 20, 2017</del>	<del>9am</del>
YMCA Father's Day-5 & 10K	Gloucester	June 18, 2017	9am
YMCA St. Peter's Fiesta- 5K	Gloucester	June 22, 2017	630pm

**NOTES:** Staffing needed at start finish as net control, lead and tail car, and a rover- 4 total minimum. Additional staff can be placed at strategic locations

## RACES BY OTHER CLUBS WE MAY BE ASKED TO VOLUNTEER FOR:

<del>ADA TOUR DE CURE- BIKE EVENT</del>	<del>Topsfield</del>	<del>May 21, 2017</del>	<del>7am</del>
Fishtown Horribles Parade	Gloucester	July 3, 2017	5pm

~~STRIKE OUT INDICATES RACES COMPLETED~~



# US Amateur Radio Bands

Effective Date  
for  
2,200 and 630



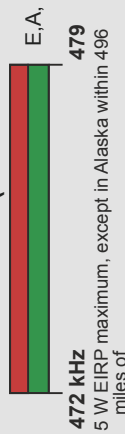
The national association for  
**ARRL** AMATEUR RADIO®

On March 28, 2017, the Federal Communications Commission adopted rules that will allow Amateur Radio access to 472-479 kHz (630 meters) and to 135.7-137.8 kHz (2,200 meters). However, amateurs cannot use these frequencies until 30 days after the Report and Order is published in the Federal Register and the final procedures for registering stations with the Utilities Telecoms

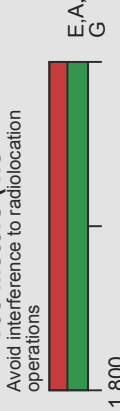
## 2,200 Meters (135



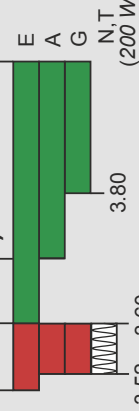
## 630 Meters (472



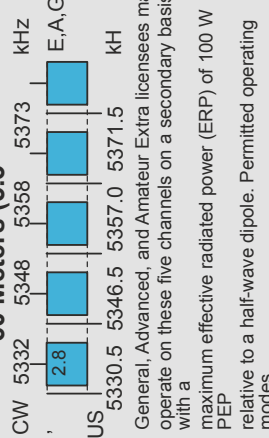
## 160 Meters (1.8



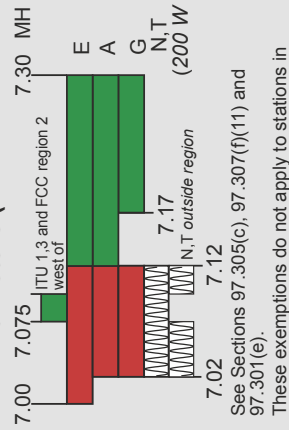
## 80 Meters (3.5



## 60 Meters (5.3



## 40 Meters (7



## 30 Meters (10.1



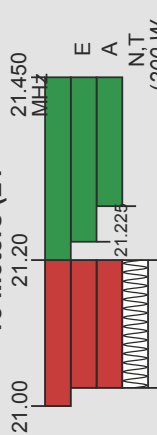
## 20 Meters (14



## 17 Meters (18



## 15 Meters (21



## 12 Meters (24



## 10 Meters (28



## 6 Meters (50



## 2 Meters (144



## 1.25 Meters (222



\*Geographical and power restrictions may apply to all

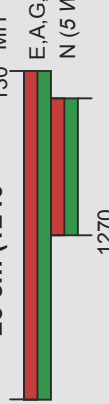
## 70 cm (420 MHz)\*



## 33 cm (902 MHz)\*



## 23 cm (1240



All licensees except Novices are authorized all modes on the following frequency ranges:  
2300-2310 MHz ± 24.0-24.25 GHz  
2390-2450 MHz ± 24.1-250 GHz  
± No pulse

**Note:**  
CW operation is permitted throughout all amateur bands.  
MCW is authorized above 50.1 MHz, except for 144.0-144.1 and 219-220 MHz.



E = Amateur Extra  
A = Advanced  
G = General

See **ARRLWeb** at [www.arrl.org](http://www.arrl.org) for

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Getting Started in Amateur Radio:

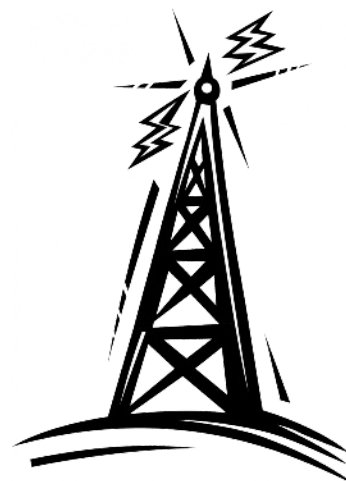
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## EASTERN MASSACHUSETTS SECTION NEWS

**AREA NEWS**  
**By Bill- WZ1L**

### ARRL EASTERN MASSACHUSETTS SECTION STAFF

Section Manager (SM) – Tom Walsh, K1TW  
Assistant Section Manager (ASM) – Phil Temples, K9HI  
Assistant Section Manager (ASM) – Andy Stewart, KB1OIQ  
Assistant Section Manager (ASM) – Rob Leiden, K1UI  
Affiliated Club Coordinator (ACC) – Andy Stewart, KB1OIQ  
Official Observer Coordinator (OOC) - Ed Parish, K1EP  
Public Information Coordinator (PIC) – Open  
Section Emergency Coordinator (SEC) – Marek Kozubal, KB1NCG  
Assistant SEC (ASEC) – Rob Macedo, KD1CY  
Assistant SEC (ASEC) – Mike Leger N1YLQ  
Section Traffic Manager (STM) – Marcia Forde, KW1U  
Assistant STM (ASTM) – Greg Bennett, KC1CIC  
Section Youth Coordinator (SYC) – Jeremy Breef-Pilz, KB1REQ  
State Government Liaison (SGL) – Hank Mc Carl, W4RIG  
Technical Coordinator (TC) – Dan Brown, W1DAN



### CALENDAR:

June 2-4, 2017

Museum Ships on the Air (MSOTA) weekend 0000Z June 2 through 2359Z June 4

Find further information at [://ema.arrl.org/node/2186](http://ema.arrl.org/node/2186)

June 24-25, 2017 ARRL Field Day: <<http://www.arrl.org/field-day>>

ARRL Field Day ARRL Field Day is the most popular on-the-air event held annually in the US and Canada. On the fourth weekend of June, more than 35,000 radio amateurs ...

July 1, 2017 (1300 UTC) to July 7, 2017 (0400 UTC)

Annual 13 Colonies Special Event <http://13colonies.net/> Spotting If you work a colony station, you are encouraged to spot it for others. We suggest DX Summit. The 13 Colonies Special Event is a not for profit event.

September 8-10, 2017

New England Division Convention [www.boxboro.org](http://www.boxboro.org)

The Boxboro ARRL New England Amateur Radio convention is the premier convention for hams in New England

Six student projects were chosen by NASA to fly in a rocket or high-altitude balloon this summer. As part of the activities offered by the Clay Center Amateur Radio Club (CC-ARC) at Dexter Southfield School, students designed projects for the NASA “Cubes in Space™” program, the only program in the world to provide students (ages 11-18) with a free opportunity to design experiments to be launched into space on a NASA rocket or balloon. Lead members include Julie KC1GMW, Morgan KC1GRZ, Nathan KB1RD, Hardy KC1ESU, Raif KC1GRX, Jason KC1GBV, Conrad KC1GBW, Rishi KC1BKX, and Sean K3FAY. Thanks to adult supervisors Christy KC1GAF, Bruce N9JBT, John AB1ZV, Ted KB1NTJ, Marlene Schwarz, and Dan Sage. (Thanks, Clay Center ARC)



The April Quannapowitt Radio Association (QRA) meeting featured a presentation by Steve Davidson, K1SMD, about new equipment that is available for the ham community. Steve is manager of the Salem, New Hampshire Ham Radio Outlet

**Welcome to the QRA Located in and around the Wakefield, Mass area, The Quannapowitt Radio Association is an organization open to all interested in radio communication**

The April Nashoba Valley ARC (NVARC) meeting was hosted by member Dr. Phil Erickson, W1PJE, at the MIT Haystack Observatory. Highlights of the meeting included a talk on E skip by club member Joe Dzekevich, K1YOW, discussions with 25 visiting students from the University of Pennsylvania, and an overview of the Haystack radio telescope. Dr. Erickson and club president Stan Pozerski, KD1LE, announced a new cooperative arrangement between NVARC and Haystack which will encompass mutual outreach to youth, the possibility of joint EME activities, and the conduct of “HamSCI” experiments.

The Linden Ponds club station, W1LPH, had a table again at the annual club fair and supplied potential future hams with ARRL information pamphlets. (W1TPB, Ted N. Smith)

The Norton Founders Day has been cancelled due to the failure of the Proposition 2 1/2 Override and the resignation of the entire Parks & Recreation Commission/Department. (Ray Cord via W1SMH).

Jack, W1AKN, President of the Genesis Amateur Radio Society (GARS) informs us the next Local Area Ham Breakfast will be May 27 at 9AM, at Mo’s Place, Hanson MA. GARS also reported a successful Boy Scouts in the Air event.

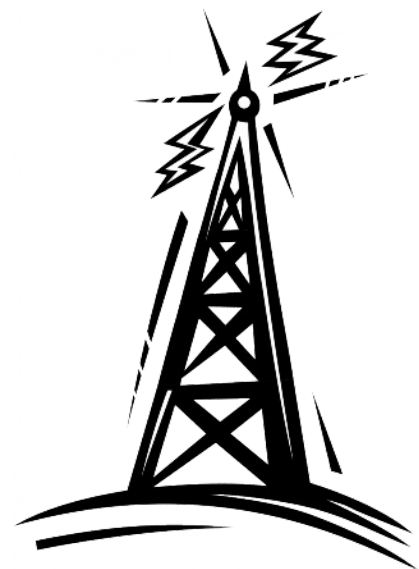
The Wellesley ARS will host Gary, N1ZCE, who will speak on the “maker scene” on Tuesday, May 16. This DIY culture is a new area where folks are experimenting and building things - all kinds of things.

PART of Westford Field Day activities will take place at the Concord Rod & Gun Club in Concord. There will be several stations: CW, phone, satellite, 6m/2m, digital, and GOTA. PART intends to operate the CW and phone stations all night. They expect 50 people to attend over the course of the weekend. Contact George, K1IG, the PART Field Day Chairman, for more information.

PART of Westford members performed community service by helping the local Kiwanis Club at the annual Apple Blossom Parade.

The Billerica ARS (BARS) created a webpage devoted to their planned Field Day activities in Chelmsford, along with a very nice amateur radio calendar, at <http://www.w1hh.org>.

BARS welcomed Tom, N1CPE, who presented a talk on the Military Auxiliary Radio System (MARS). N1CPE is currently the Army MARS Region One Executive Officer. MARS has changed dramatically in the past few years, shifting away from MARS-grams as the primary activity, to support for



Department of Defense missions and training for communications support in a “very bad day” scenario. Tom discussed what MARS members do, and how all Amateur Radio operators can help in these missions. Every day, MARS operators train to be better communicators.

#### SILENT KEYS:

We are saddened to report the news from the Quannapowitt Radio Association (QRA) that Jackie Jones, KB1NNA, has become a Silent Key. Her funeral was on the day of the April QRA meeting. (via QRA Newsletter and Brian, WO1VES).

We are saddened to report the news from the Wellesley ARS (WARS) that member Jack, N1TPU passed away Thursday, April 13. He was 86 years old, and WARS member since 1994. The Wellesley club will hold Field Day in June, honoring member Jack, N1TPU. (via the WARS newsletter).

#### FINAL WORD

What’s new in your club? Contribute to the EMA section news!

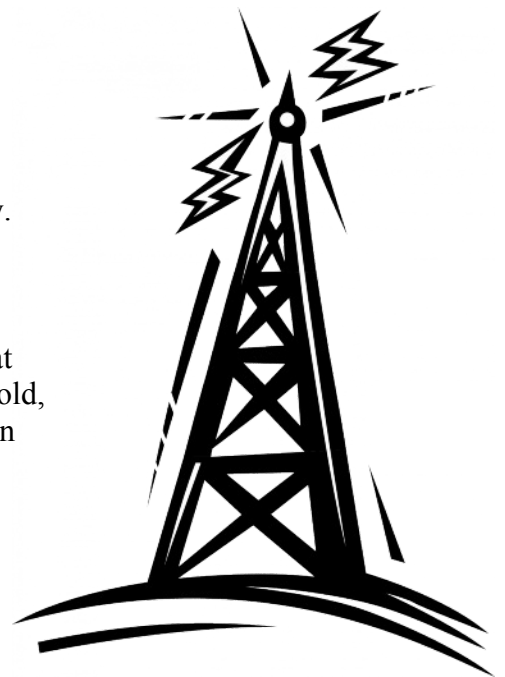
For the latest updates to section news, please check our website regularly at <http://ema.arrl.org>.

73,

Tom, K1TW

#### **TRAFFIC NETS (EMA/WMA)- Information via Marcia, KW1U EMA STM**

EM2MN 145.230 MHz 8 PM Daily EMA 2 Meter Net  
MARIPN 3978 KHz 6PM Tu, Th, Sa MASS/Rhode Island  
HHTN MMRA Repeaters 10PM Su, M, W, F Heavy Hitters  
CITN 147.375 MHz 7:30PM M, Tu, Th, Sa Cape & Islands  
MARI 3565 KHz 7PM Daily MASS/Rhode Island  
CM2MN 146.970 MHz 9PM Daily Central MA  
WMTN 146.910 MHz 10AM Daily WMA  
WMTN 146.910 MHz 1PM Daily WMA  
WMEN 3944 KHz 8:30AM Su WMA  
NEPN 3945 KHz 8:45 Su NE Phone Net







### **Nifty Accessories tilt bail extender.**

If your having the common issue of not being able to see the display of your rig even after you lower the tilt bail on it Nifty Accessories has a solution in their tilt bail extender. raises the radio a couple more inches which makes a big difference in the viewing angle. The extender is made of sturdy heavy duty plastic and when I used it on my ICOM 7300 there were no issues in the radio wanting to tip over or move. The wire bail stand raises your radio up to almost 2 inches higher and it has 3 separate slots to adjust the height to your liking. The tile stand works great with portable HF rigs is about \$20.00 on the Nifty Accessories website. I would recommend buying this product for portable HF ops. 73, Dean KB1PGH

## Just Another Race

*by Curtis AA3JE*

Every summer for the last decade I have done CAARA radio support for races. I get an email, requesting help, and unless someone is bleeding at home, I go.

And after a while I get it down. Solved the power problem in the Honda (only 10 amps out of the cigarette lighter), figured out how to set the tone (made highly difficult on Yaesu Radios), got an inverter so my cell phone does not give up half way through, and got a clip board that works.

So I get an email, say yes, and it's another 5K.

I start out 45 minutes before, plenty of time, and key up the radio.

"Net control this is AA3JE, how do you copy?"

"Somebody call net control?"

"THIS IS AA3JE, HOW COPY!"

"CALLING STATION, YOU ARE UNREADABLE!"

Check frequency. OK.

Check tone. OK

Check power. OK

Check cables. OK

Make sure little button is red (power switch). OK

"Net control, this is AA3JE. How copy now?"

"AA3JE, you are totally scratchy."

Now in the past, I would not know what was wrong. But now I do. When you put the cable of the mag mount through the door (not out the slightly cracked window), the door bends the cable. And every time you open the door, it re-bends the cable. And one of those times, it breaks. Wire broken inside the coax, can't tell where.

"BOOTS AND SADDLES! BACK TO THE HOME QTH!"

Now I have another mag mount. But it's in the basement. I wouldn't go down there without a 300 H&H magnum and a native guide! So I look around the garage! There's the base unit antenna on the tripod mount. Thinking quickly, grab some duct tape.

I try to tape base unit to the Honda. Looks mighty weird, and tape does not hold.

I look at the truck! I run over, and cram the base of the antenna in one of the stake bed holders. It fits, but is loose. I look around.

"A stick, a piece of 2x4, anything."

All I have are rocks. So I pack rocks around the base of the antenna. A bit weird, a bit off axis, but it holds. Switch radios to the truck, key it up.





"Net control, this is AA3JE, how copy?"

"Loud and clear, AA3JE."

Now back to my position. OH NO! The cops have blocked off the road! So I pull as close as I can, and run up to the race staff marking the corner. They can see the start.

"Er, can you signal me when the last runner turns the corner?"

"Sure."

So at check in, with two minutes to spare, I check in.

400 runners go by.

Then two adults, a 9 year old, and a 4 year old, saunter around the corner. And the race staff flags me.

So, I trail around after the foursome, carrying their pizza box, around the 5 K. Twenty minutes per mile, just like in the book.

Just another race.

Fortunately, HRO is open on Saturday.

Now all I have to do is get the rocks out of the truck bed. They rattle. I'm thinking a stick with some duct tape on the end.



## **Maritime Mobile Service Net Relays Distress Call; Crew, Passengers, and Vessel Safe**

The Maritime Mobile Service Network (MMSN) recently served as a critical communication link after the sport fishing vessel *Free Spirit* put out a "mayday" distress call on VHF marine channel 16 after running into trouble in Mexican waters. Brian Stipak, KF7QCX -- skipper of the sailing vessel *Ubiquity* -- heard the May 13 mayday, which advised that the *Free Spirit* was sinking quickly with four people on board and that all were abandoning ship. Unable to raise coastal stations on his vessel's VHF radio, Stipak went to the MMSN's 14.300 MHz frequency. Despite marginal band conditions, he was able to relay a position report to net control station Ken Porter, AC0ML, who had assistance from fellow NCS Scott Roberts, KK4ECR.

"They were taking on water and could not find the source, and were deploying their life raft," Stipak recounted on his website. "He clearly gave the coordinates for his position, which I plotted and saw [he] was about in the middle of the Sea of Cortez, about 46 nautical miles from me. My VHF communication with him was marginal." Stipak said that while he could barely hear the MMSN net control, the operator was able to copy the information. The *S/V Fathom* also heard the mayday and set a course for the distressed boat.

Porter notified the US Coast Guard in San Diego to relay the information to the Mexican Navy, which dispatched a vessel to the *Free Spirit*'s last-known position. The Coast Guard also tried to raise *Ubiquity* on 14.300 MHz, but band conditions were changing rapidly, and there was no further contact.

Stipak was also able to get through on his cell phone to the port captain at Puerto Escondido and leave information on the distress call.

"We did not hear from the boat in distress for an hour, the last communication saying they were deploying the life raft. I thought the boat had likely sunk," Stipak said in his website narrative. "Then, the captain of Free Spirit came on the VHF again saying they had found and stopped the leak, were trying to pump out the boat, could not start the engine, had deployed the life raft, but not abandoned the boat and did not yet want to cancel the mayday.

Roberts later learned via the Coast Guard that the Free Spirit had been towed to the port of San Carlos and that all on board were safe.

"It looks like a great resolution to a very intense situation," Stipak allowed afterward.

The MMSN is in its 50th year of operation. -- Thanks to Jeff Savasta, KB4JKL, MMSN assistant net manager

## **The Storied History of the Ham Radio Call Sign**

Every legal amateur radio operator in the world has a government issued call sign, and many hams are better known to their radio friends by their call sign than they are by their given birth name. The uniqueness and prestige of a call sign is indeed one of the most important things that provide the persona that IS amateur radio. Remember when you first opened that letter from the FCC, it was not unlike Christmas day as you learned what your new call sign would be. From then on, you would be known by that call sign.

Call signs are important indeed. Think of the call sign W1AW, and 99% of hams would know that this once identified Hiram Percy Maxim, the founder of the ARRL. The call sign was so important that it became the official call sign of the ARRL. But, if one thinks about it, we don't really own these call signs, they're leased to us by the FCC for our use as long as we remain licensed. We are the caretakers, and when we become a silent key, they are passed along to the next caretaker. (This author is the fifth caretaker of the W7VO call sign, and seventh if one includes the original 7VO, which has been traced back to 1922.) However, this begs the question; where did our treasured call signs first originate, and what is the evolution of this most important moniker? Of course, one cannot discuss call signs without covering some of the storied history of amateur radio itself in the process.

The origins of amateur radio call signs go back to the earliest days of radio, informally at first, then more formalized as major world events transpired that changed the face of amateur radio itself. This evolution can be broken down into five distinct periods of history:

- 1) The Pioneer Years, pre - 1918
- 2) The Reconstructive Years, 1918 - 1927
- 3) The Pre-War Years, 1928 - 1941
- 4) The Post-War Years, 1945 - 1975
- 5) The Modern Era, 1975 - present

The Pioneer Years, pre 1918, "The Days of Anarchy"

The very early days of ham radio was an interesting time, not completely unlike the untamed wild west itself. Prior to 1912 there were no real laws governing the new communications medium known as "wireless", it was for the most part completely unregulated. The airwaves of the time consisted of signals emitting from crude spark gap transmitters, by a combination of governmental, commercial interests, and fledgling ham radio operators (who mostly worked for these other interests). The Marconi Company was among the first to use three letter call signs to identify their transatlantic coastal wireless telegraph stations, and to identify their company owned shipboard stations. The coastal station call signs started either with a "V" (for "Voice of (somewhere)", or "M" (for "Marconi"), while the shipboard stations just used the starting letter of "M". Amateur radio operators for the most part started off by using just names as identifiers, such as "BILL" or "MAC", then that evolved into a combination of two or three letters, a mixture of letters and numbers, or even just numbers! It would be easy to see that there ended up being a LOT of overlap in call signs, both commercially, and among hams themselves. Was "MAC" a Marconi Company owned shipboard station sailing off the coast of Newfoundland, or Miles A. Cornwall (using the call sign "MAC"), the ham radio operator in New York? With such a limited range for the spark gap transmitter (often around a hundred miles or so), this wasn't much of an issue, (at least at first.)



However, as the airwaves became more and more congested it was clear that more needed to be done to coordinate and publish established call signs to reduce conflicts. While there were publications that listed known commercial wireless stations, the May 1908 publication of Modern Electrics magazine published one of the very first list (a “wireless registry”) of known amateur wireless radio operators, their associated call signs, and also the approximate wavelength they operated on. (One could argue that these are really the first ten documented ham radio operators!) Most of these hams used two letter identifiers signifying their initials, but one ham, Otto Curtis of Rochester, New York was simply known as “Q”, long before the letter became associated as fictional James Bond’s technical advisor.

By May of 1909 the “wireless registry” listed many more amateur wireless stations and their call signs, most listed were using three letters by now. (It’s interesting to note that many used two letters followed by the third letter of “M” to denote that they were employees of Marconi Company). Some hams were listed with a combination of letters and numbers, such as J.C. Randall of Albany, New York who was listed signing as “S4”, and F.W Harris of Renton, Washington, who signed simply as “3B”. One special call sign listed was that of Earl C. Hawkings of Minneapolis, Minnesota who utilized the call sign of “HAM”. I guess one could argue that he was the first real “ham”!

In such an unregulated environment that had many wireless stations competing, (all utilizing transmitters with very broad emission spectrums), and coupled with crude receivers on the other end, conflicts caused by both unintentional and intentional interference were commonplace. This was getting worse by the day, and one day it all came to a head. That day was April 15, 1912.

On that fateful day, the seemingly impossible happened. The “unsinkable” RMS Titanic (call sign: MGY), with 2,200 passengers aboard hit an iceberg in the North Atlantic, and was sinking fast. While there were hundreds of passengers eventually rescued by the RMS Carpathia (call sign: MPA), several problems with wireless radio communications of the day played a key role in delaying the rescue effort, and undoubtedly added to the Titanic’s fatality totals. For one, the shipboard wireless station aboard the Titanic was owned and manned by employees of Marconi Company. Marconi’s main competition for the ship wireless telegraph market was bitter rival Telefunken, based in Germany. At the time Marconi Company owned stations were not allowed to have any contact with Telefunken owned stations (call signs beginning with a “D”), and as a result messages from the competition were largely ignored. In addition, there was both unintentional and intentional interference from other commercial stations (and hams alike), making for even a more chaotic scene. Many thought the distress signals from the doomed ship were fake. After all, how could the “unsinkable” Titanic really be sinking? It must be “fake news”!

There was also a third issue. The Marconi Company early on had established the “CQD” (“CQ Distress”), message. The now familiar “SOS” (“Save Our Ship, or “Save Our Souls”), had actually been made the worldwide standard at the second International Radiotelegraphic Convention, was signed in 1906, and became effective on July 1, 1908. This was a full four years earlier than the Titanic sinking. Only the Marconi Company equipped ships still used “CQD” as the standard distress message when the Titanic ran aground.

While the above is a nice narrative about a well-known disaster, what does this have to do with amateur radio call signs? When the dust settled, the US Congress began investigations into how to keep this disaster from repeating itself. Besides the sole remaining Titanic wireless operator, Harold Bride, the radio pioneer and tycoon Guglielmo Marconi himself was called before Congress to explain his company’s practices. The end result of these hearings became what is known as the Radio Act of 1912, written into law on August 13, 1912. This historic act had the following provisions, among others:

- 1.) It established a Federal law that mandated that all ships constantly monitor distress frequencies, (the primary one at that time set at 600 meters (500 kHz))
- 2.) Mandated that the familiar Morse “SOS” be the defacto standard for distress calls
- 3.) Mandated that all radio stations in the US be inspected and licensed by the federal government.
- 4.) Provided the possibility of fines for intentional or malicious interference
- 5.) Limited experimenters (amateurs) to 200 meters wavelength (about 1.5 MHz) and lower, (as frequencies higher than that were considered “useless”!)

The end result of the new licensing requirements dramatically dropped the number of amateurs from about 10,000 to around 1,200 almost overnight, and almost killed off the hobby. This was a win for the Navy and

commercial wireless interests, as they really didn't want any "amateurs" on the air anyway, interfering with their airwaves. While US stations, (including amateurs), had to be inspected and licensed by the US government, this act didn't really do much for formalizing call signs per-se.

On the international front, the International Radiotelegraph Convention of 1912 established the first internationally recognized call sign standards, based on the country. This standard replaced the random three letter call signs prevalent then. Major world powers were given single prefixes such as "N", "W", and half of the "K" prefix allocations (KDA-KZZ) (United States), "A", "D", and "KAA-KCZ" (Germany), "F" (France), "B", "M", and "G" (Great Britain). The convention was signed at the International Radiotelegraph Conference in London on July 5, 1912. It is important to note that while these international standards were applied to commercial wireless stations, amateurs for the large part were still left on their own.

On May 9, 1913, the official United States Policy for Radio Call Letters was published:

"The call letters for amateur stations in the United States will be awarded by radio inspectors, each for his own district, respectively according to the following system:

(a) The call will consist of three items; number of radio district; followed by two letters of the alphabet. Thus, the call of all amateur stations in New England (which comprises the first district) will be the figure "one" in Continental Morse, followed by two letters; in California (in the sixth district) the figure "six" followed by two letters; in South Carolina the figure "four" followed by two letters; in Missouri the figure "nine" followed by two letters, etc. The letters "X", "Y", "Z", must not be used as the first of the two letters.

The territory of each district was as follows:

(b) The three items; a given figure first, followed by two letters of the alphabet, thus may be combined in 598 different calls, which will probably suffice for the amateur sending stations in most districts for some time to come.

(c) Radio inspectors will insert amateur station calls in station licenses according to this system, and will keep a permanent chart, of 598 squares, lettered with the alphabet from left to right and from top to bottom ("A" to "W"), inserting in the appropriate square the serial license number of the station to which the call letters were awarded. Within these limitations radio inspectors will use their discretion in the award of calls, avoiding, of course, duplications.

(d) When a station is abandoned and the license canceled, or if a license shall be forfeited for violation of law, the call assigned to it may be allotted to another station.

(e) If the entire 598 calls have been exhausted, radio inspectors will issue additional calls, consisting of the figure of the district followed by three letters. From such combinations should be excluded the combination SOS, and PRB, all three-letter combinations beginning with QR or QS, all combinations involving the repetition of the same letter three times, three-letter combinations beginning with "K", "N", "W", "X", "Y", "Z", and other combinations, which, for various reasons, international, national, local, or individual, may be objectionable."

The "official" US amateur ham radio station call sign was officially born, but what is interesting to note here was that the Department of Commerce, who was responsible for these regulations, thought that 598 call signs per district were plenty "for some time to come." Little did they know that the number of US amateurs would balloon to the almost three-quarter million we have now!

Then on April 7<sup>th</sup>, 1917 the entire world of amateur radio was turned upside down, when by executive order amateurs were told to "dismantle and render inoperable radio wireless equipment, and antennas" as the United States formally entered "The Great War", World War One. This mandate applied to both receivers and transmitters, and all amateur licenses issued to date were immediately cancelled. Amateur radio was dead, and radio itself became a government monopoly utilized strictly for the war effort. To ignore this mandate could be considered an act of treason, so it was not taken lightly.

Radio amateurs, while no longer licensed, were a valuable asset for the war effort. They were encouraged by the government to help man coastal wireless stations and enlist in the Signal Corps for field radio operations.

## The Reconstructive Years, 1918 - 1927, "Starting Over"

At the conclusion of the war the US Navy put together a very large push with the Congress to ensure that future amateur radio activity remained silent, so the military could continue to have the airwaves for themselves. Mostly due the effort of Hiram Maxim and the ARRL that effort was defeated, and amateurs could once again be licensed and back on the air starting in early 1919.

Since all licenses had been cancelled at the start of US involvement in the war, all previous call signs were forever lost. When the nine district radio offices once again opened for business amateurs lined up in an attempt to ensure low letter suffix assignments. (Are things really different now outside Apple stores these days when the new phones come out?)

As early as 1920 some of the call districts had run out of two letter suffix assignments, so began the three letter suffix call sign. (That said, there were some reassignments of two letter call signs, if you knew the right person!)

By 1923, as both receiver and transmitter technology greatly improved, international contacts between amateurs were becoming commonplace. Amateur stations, for the most part, still didn't follow the call sign prefix standards set by the International Radiotelegraph Convention of 1912, so there were again problems related to duplication of call signs. Only this time on a worldwide scale. Remember that the policy established in 1913 did not cover call sign prefixes for amateurs, only the district assignments and suffixes. There could be a 2AL in New York working a 2AL in Brazil, or another one in England. Amateurs, (being inventive as they are), took the matter in their own hands, and sometime starting in the mid 1920's US amateurs began using an unofficial "u" or "U" as a prefix on call signs to denote they were from the US. By 1927 the prefix "nu" (North America, United States) became commonplace on QSL cards (example: nu6AA), while a ham in Canada would use "nc" (North America, Canada) as a prefix, (ie: nc7AA).

In 1925 the Department of Commerce opened up the "Z" letter suffix for assignment, and allowed the "Y" letter suffixes to be used for educational institutions. Examples of the latter are still in use to this day; Stanford University is often on the air with W6YX (originally 6YX), and down the road San Jose State University is still on the air (since 1928) with the W6YL call sign. The "X" letter suffix remained for "experimental" stations, and was not released as a 1X2 (ie: W7XQ), standard call sign until 1977. Two-by-three letter "X" suffix call signs remain to this day reserved for experimental stations. Not exactly as the Convention of 1912 dictated, but better than nothing!

## The Pre-War Years, 1927-1941, "Amateur Radio is Here to Stay!"

The Washington Conference / Radio Act of 1927 established formalized US amateur radio bands, and finally put US amateurs under international prefix rules that were loosely established in the international conference of 1913. As a result of this act a new commission was formed, the Federal Radio Commission. The commission was assigned the task of issuing licenses, including amateur radio. Also part of this latest act, the US was finally going to follow the already established International Telegraph Union (ITU) call sign standards.

The ITU standards were upgraded to grant the entire "K" prefix to the US, in addition to the existing "W" and "N" prefixes. (Remember that Germany had the "KAA" to "KCZ" prefixes issued previously). The Navy was reserved the "N" prefix, while starting in 1928 the "W" and "K" prefixes were authorized for civilian services, such as amateur radio. As new amateur licenses were issued, and old ones were renewed, the "W" prefix was simply added to the existing call sign. For example, the call sign of 6UO, (or the unofficial nu6UO), became W6UO. The "K" prefix at that time was reserved for US possessions, such as Alaska, Hawaii, and other islands. (Note that "A" block letters were unassigned until 1947, when the US received the "AA" through "AL" prefix blocks). The US amateur radio call sign had finally taken its modern shape we all know today.

Unrelated to amateur history, (but a question that always seem to arise), is the history of how the US commercial broadcast stations got geographically divided into "K" (for stations West of the Mississippi), and "W" for Eastern stations. This oddity goes back to early Federal Radio Commission regulations, and was originally applied to ships operating either in the Atlantic, ("K" prefixes), or Pacific or Great Lakes area ("W" prefix). Eventually, this was applied to land based commercial stations as well, (but somehow in reverse order), using (with exceptions), a rough line matching the course of the Mississippi river.

In 1933 President Franklin Roosevelt requested the Secretary of Commerce to appoint an interdepartmental committee for studying electronic communications. A recommendation was made by the committee for the



establishment of a new agency that would regulate all interstate and foreign communication by both wire and radio, plus telegraphy, telephone and broadcast, under one umbrella. This resulted in what became known as the Communications Act of 1934. A key part of this act was the creation of a new federal organization known as the Federal Communications Commission, (FCC) to replace the Federal Radio Commission that was previously established in 1927. Amateur licenses were now moved under this new commission, and this act also created many of the laws that still govern the hobby to this day.

On December 7, 1941, the “day that will live in infamy”, the world of amateur radio was upended for the second time, as the US was drawn into the Second World War. All amateur activity was officially suspended January 9th 1942 for the remainder of the war. The big difference here though, was that the FCC continued to issue and were allowed to renew amateur radio operator licenses. After all, that gave the government a ready pool of trained and certified radio operators and technicians for the war effort. There were no station licenses issued, and existing ones were considered revoked. Once again hams were forced to silence their stations but at least this time, unlike the previous war, receivers were still allowed to be used.

This lasted until the war officially ended in September 1945, and shortly afterwards amateurs were granted limited permission to get back on the air in November of 1945, with only the ten and two meter bands to start. The US amateurs were back, even if only in a limited capacity at the time.

The Post-War Years, 1945-1975 “The Glory Years of Amateur Radio”

The Atlantic City International Telecommunications Union (ITU) Conference of 1947 (the ITU had changed its name in 1932), reallocated some call sign blocks, and granted a few developing island nations their own prefixes. Meanwhile in the US, the call sign districts were moved around to equalize ham populations. During the war the Midwest, and West coast industrial centers had greatly increased the amateur radio populations in those areas. As a result, a new 10th call district formed for the central Midwest, allowing Wisconsin, Illinois and Indiana to have the 9th district to themselves. The 6th district was changed to encompass California only. The remaining states that used to be part of the 6th district (Nevada, Arizona and Utah), were moved into the lesser populated 7th district. As licenses were renewed, the new call sign districts were mandated, and often entire call signs changed as a result. A new call was assigned to denote the new district, but one “might” keep their old suffix if it was currently unassigned in the new district. If the suffix was already assigned to somebody in the new district, a new suffix was assigned as well. For example, pioneer Charles Newcombe, 6UO, in Yerington, Nevada became W6UO in 1928, but had to change to W7VO when the state became part of the 7th district in 1947 as W7UO was already in use. The rule allowing special call sign suffix dispensation lasted until 1978, when the systematic call signs program began. (More on that later.)

Also at this time US Possessions had own unique prefixes assigned, ie: KP4 for Puerto Rico, KH6 for Hawaii, and KL7 for Alaska.

In 1951 there was a big push to create an “entry level” amateur license, so in response the FCC created a new Novice amateur radio license class, originally as a one year, non-renewable, low power, and CW only license. These new “novices” were assigned either a WN or a KN prefix, but the “N” would be dropped from the call sign once the licensee upgraded. (For example, new novice WN7XYZ would get a new call sign of W7XYZ once he upgraded.). When the FCC ran out of “KN” and “WN” call signs, they began issuing “WV” prefixes for novices, which became “WA” or “WB” prefix calls when upgraded. US Possessions used “W” for the first letter of the novice prefix, (ie: WH6ABC to denote a novice call sign, which changed to KH6ABC when upgraded).

Another interesting thing happened at the same time. Another new class of license was created, called the “Technician” class. It was a new VHF/UHF/microwave (220 MHz and higher) licensed designed to encourage experimental exploration of these frequencies, (but not intended as a communicators license!) The call sign assignments for the Technician class license followed the same rules as all of the other amateur classes, except Novice. Since Novice and Technician privileges didn’t overlap, it was possible to hold two different call signs at the same time. There was also another rule that if an amateur had homes, (such as a “snowbird”), in two different FCC districts, he or she could hold call signs that reflected the numbers of both districts. So, technically, one amateur could potentially hold four amateur call signs simultaneously! It is unknown whether anybody ever took advantage of this loophole, but it was technically possible. When the Novice license was

upgraded, the Technician license was forfeited, as the General class already included all Technician privileges. This system was in force until sometime in the 1960's.

As the number of licensed amateur operators greatly increased in the boom years following the war, "W" prefix call signs started to run out, so starting in 1947 the first "K" prefix calls began to appear in the continental US. By 1953 most districts were issuing them, and some still were until 1964. (The 9th call district area was first to implement the new "K" prefix)

By the late 50's/early 60's all of the possible combinations of 1X3 format "K" were all assigned in some districts, so "WA" and "WB" (2X3 format) call signs started appearing. "WB" call signs were issued from 1965 to 1975, but in the mid 1970's some districts were also running out of "WB" calls, so the FCC began recycling old "WA" calls that were expired or otherwise unused in the system. (The author's first call sign was one of these, WA6HKP). The amateur ranks were filling up fast!

However, the recycling of old call signs was not new when they began reissuing unused "WA" call signs. Starting in 1966, (and until 1977), Extra Class licensees, licensed for 25 years or more, could apply for unused 1X2 call signs.

The Modern Era, 1975 to Present "Things get complicated"

The issuance of the recycled call signs was a lot of extra work for the FCC, so it began issuing new "WD" prefix call signs in the 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> area call districts, starting around 1976. (In 1978 the "WD" prefix was replaced with the "KA" prefix, as systematic licensing was put into place). But what happened to the "WC" prefix, which logically should have come after "WB"? The answer is; those prefixes were reserved for Radio Amateur Civil Emergency Service (RACES) stations at the time. VHF and UHF club owned repeaters also had their own 2X3 format call signs issued, starting with the "WR" prefix. At least one "WT" (WT6AAA) call sign is known to have been issued in the 1970's, as a "temporary" call after a FCC mixup denied a prospective amateur's new license. (He had the same first and last names as somebody who previously had their license revoked, and once cleared up a temporary license was issued until the standard license could be processed). In 1975 the FCC released special 1x1 call signs for special event stations, choice 1x2, and "AA-AL" and "N" prefix call signs. Starting in 1977 the 25 year licensing requirement was dropped for Extra Class upgrades to unused 1X2 call signs, and in addition, the 1X2 "N" (ie: N1AA) prefix call signs were added to the mix. Also, the new 2X2 "AA-AL" prefixes (ie: AA7CR) became available for Extra class licensees. There were certainly a lot of new "Extra Class only" call signs to choose from, and many licensees took advantage of the opportunity!

However, just as things seemed to be running smoothly for the issuance of call signs, in early 1977 a FCC employee at the 3<sup>rd</sup> District office in Gettysburg, PA was indicted for taking bribes offered by amateurs wanting special call signs, and who did not have the license class to be awarded the change, (among other issues). This unfortunate event resulted in the termination of all then informal FCC processes for issuing call signs. The new rules implemented on February 23, 1978 required that all amateur call signs must be issued only by the "systematic" process as specified in the rules. No specific call signs could be assigned; call signs were instead assigned consecutively, via a computer database. There were a few other sweeping changes:

- Amateurs were no longer required to change their call sign when moving to a new district.
- Secondary, Repeater, Control, and Auxiliary Station licenses were discontinued
- Call signs were now going to be assigned by Groups, and by license class

The Groups were defined as:

Group A -- Amateur Extra Class

Contains all "K", "N" and "W" 1x2, most 2x1, and most "AA-AK" prefixed 2x2 call signs

Group B -- Advanced Class

Contains most "K", "N", and "W" prefixed 2x2 call signs

Group C -- Technician & General Class, (and later, the Technician Plus Class)

Contains all "N" 1x3 call signs. Unassigned "W" and "K" prefixed 1x3 call signs are not issued under the sequential call sign system, but are available under the later Vanity call sign system

## Group D -- Novice Class

Contains most “K” and “W” prefixed 2x3 call signs. The letter “X” may not be the first digit of the suffix.

Note that no provision had been made for the issuance of AA-AL and NA-NZ prefixed 2x3 call signs, and these call signs are not currently issued to anyone.

In 1995 the Vanity “for a price” program opens, consisting of four “gates”:

Gate 1: 5/31/96, for those amateurs that had held a call before, or eligible for “in memoriam” calls

7/22/96, for Club station trustees that were eligible for “in memoriam” calls

Gate 2: 9/23/96, Amateur Extra requests

Gate 3: 8/6/97, Advanced Class requests

Gate 4: 12/2/97, Everybody else

So now we have the full history of the ham radio call sign, from the infancy days of amateur radio, until the present day. What does the future hold for our call signs? Who knows? Eventually, the “N” and “A” 2X3 call sign formats will have to come into play as the “K” and “W” prefixes run out. There also have been other ideas floated out there that include authorizing a mixture of letters and numbers for Extra class call signs, similar to what is in use in Europe. (ie: W71VO), or even the “sale” of 1X1 call signs to Extras, now reserved for special event stations.

In conclusion, please take the time to appreciate the past efforts and tenacity our forefathers, and especially the gallant early efforts of the ARRL, had to ensure that the hobby we all enjoy as radio amateurs even exists today. Our unique call signs define who we are as amateurs, and have from the start. Please remember to take good care of our special call sign heritage for future generations of amateurs.

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## NEXT MONTH'S ISSUE:



**CAARA'S 2017 FIELD DAY PHOTO'S**



**CAARA RACE EVENT PHOTO'S**



**CLUB NEWS AND EVENTS**



# DAYTON HAMVENTION

Hello.

Well the switch from HARA ARENA in Trotwood was nicely executed by the Dayton Amateur Radio Association (DARA) to the Green County Fairgrounds and Expo Center in Xenia, OH. The new location is 25 miles Southwest of Dayton on Route 35.

I was able to travel back and forth from my motel to the HAMVENTION site in about 40 minutes and the travel route was very quick with little to no traffic from Dayton to Xenia.

There were six separate buildings for the exhibits and vendors for the venue. I noted new radios for Kenwood, Icom and Yaesu were being presented. Icom had the new DMR Radio IC-51A and it was nicely priced for the weekend.

Tom Medlin, W5KUB, broadcasted the whole HAMVENTION and I was very please to meet Astronaut Colonel Douglas Wheelock, KF5BOC, a veteran of space travel, his history is Space Shuttle Mission STS-120, ISS Expedition 24 and Commander of ISS Expedition 25. I sent Tom's link earlier but will send it again for those who are interested. [http://www.w5kub](http://www.w5kub.com) (dot) com. He broadcasted Thursday through Sunday, so there is quite a lot to see. There were even a few remote broadcasts from some of the vendors.

Colonel Wheelock and I had a lengthy conversation of operating from the International Space Station on 2 Meters and he was nice enough to sign a photo and provide me with a decal from the Space Station.

There were many new vendors and the booths were a bit smaller which allowed more vendors in the building. I was really impressed with the food vendors, they had just about anything there. There was very limited covered lunch benches, but I am sure they will take constructive comments and attempt to make changes.

The Flea Market was located in the middle of the race track on a grassy area. They had race horses which they exercised every day and you saw the rigs flying by for a few hours to keep them up to par.

I bought a new balun for my dipole and a couple lengths of RG-8 for other antenna projects. The only other purchase was a hotspot for my computer. The WIFI at my motel was just about nonexistent.

The photo attached shows the actual crowd awaiting for the gate to open on Saturday Morning. There were more people they believe in 2017 than what they have seen in the last three years. I was fortunate to be at the beginning of the line.

I had an uneventful return trip to Boston. I believe it was either Tuesday or Wednesday that Ohio had a tornado roll through the area and some places 20 miles North got hit hard. We are fortunate not to see too many tornadoes in New England.

73,

BILL POULIN, WZ1L







More photos of the newly located Dayton Hamvention by Bill-WZ1L.

Bill attends this event every year and has made many new ham friends over the years.







While waiting at the front gate, I met up with Dr. Tamita Mulligan Skov, or as she is also known as Space Weather Woman.

She is on Facebook, she shares her knowledge of the sun spots, sun wind and propagation for Ham Radio and GPS Operators.

She is a wealth of information on those subjects. I have had the pleasure of texting her on Ham Nation, another ham radio related webcast. She lives in California.

