



VOLUME 62 ISSUE 9

ARRL AFFILIATED-SPECIAL SERVICE CLUB

September 2012



Ted and Mary Ann Allison, NØNKG (SK)

## September Ham Breakfast

### LOCATION

**Canyon Coffee and Café**  
**1791 South 8<sup>th</sup> street**

**Saturday, 8 September 2012. Time is from 8:00-9:30 AM. All are warmly invited to come on down and join us!**

## September Club Meeting

The September 12<sup>th</sup> club meeting will be at the IHop on Stetson Hills Blvd (just west of Powers Blvd). 5749 Stetson Hills Blvd.

### PPRAA Club Officers

President	Mike Derbort	KCØELG
Vice President	Dan Scott	WØRO
Secretary	Diana Nordstrom	KCØNPP
Treasurer	Pam Scott	WØPRS
Board	Tom Brereton	WØTOM
Board	John Wishart	KCØJFH
Board	Doug Neilsen	N7LEM
Board	Jim Bishop	KDØKQL
Board	Virgil Yost	NØXRS
Board	Kerrianne Dixon	KDØIPR
Ø-Beat Editor	Mike Anderson	WV7T

All officers can be contacted at:

[boardmembers@ppraa.org](mailto:boardmembers@ppraa.org)

## PPRAA FACEBOOK

<http://www.facebook.com/pages/PPRAA-Pikes-Peak-Radio-Amateur-Association/185833894769325?v=wall>

## ELECTIONS!!!

In October the membership will elect the next PPRAA leadership team. Be part of that leadership, run for a position!!

### 2012 PPRAA PICNIC







# TECHNICAL



Mike Anderson, WV7T  
[wv7t@arrl.net](mailto:wv7t@arrl.net)  
719-229-8610

## Licensing-Code-VE

**Roswell Community Church**

2728 Beacon Street

(Call first to be sure class will be held.)

## Licenses

### Sunday Classes

Extra license 1-3 pm.

Technician 3-5 pm

### Tuesday Class

Extra license 2-4 pm

## Code

### Monday Class

Morse Code Sept 17, 7pm

## VE class

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## **\*\*VE Examiners class\*\***

**Date to be forthcoming**

## **Hands-On Training**

**Saturdays 2-5pm.**

**510 West Polk Street**

**(Weather permitting)**

**(Call first to be sure class will be held.)**

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## **PPRAA Apparel**

Both **Silk Screen and Embroidered** (Shirts, T-Shirts, Hats, Badges, etc.), members pay for individual shirts. Embroidered - Club logo = \$7. Call sign and name ordered together = \$7, Call sign or name ordered separately = \$5 each. The number to call to order is: (719) 591-6151. Monograms by Jane.

**Silkscreened** - T-Shirts with a one color left chest logo only no name or call sign: Small thru Xlarge: \$8.75 ea. T-Shirts with one color logo on left and name with call sign on right side: Small thru Xlarge: \$9.60 ea. for XXlarge add \$2.00 per shirt.

**POC Dick Thompson, WØRAA**  
**719-520-0288**

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## **Ø-Beat September 1982**

### **September 1982:**

An RFI seminar will be held at this month's club meeting. William Nelson of Nelson Consulting has over 30 years experience in tracking down RFI. There will be a hidden transmitter hunt in the near future. The club will purchase beer, pop, potato chips and charcoal for the picnic. Bring your own meat and a side dish. Bob KØDJ gave a report of his visit to the ARRL Convention for the Rocky Mountain and Northwest Divisions. Al Bailey

ADØZ writes the next installment in his series on computers. This one delves into the history of computers. Since next month is election month the board is looking for people that want to run for office. Contact Al if you're interested in a club cap or jacket. Mark reports that Commander Casey of the Naval Reserve Center is interested in discussing a possible location for the club station. A proposal is being worked up. The first "The Way it Was" article appears, about establishing a wireless station on Pikes Peak for the purpose of relaying signals between the two coasts.

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**What happens when hams get together?**

**An antenna  
party breaks out!!**



**The planning committee**



**WØEM monitoring the progress**

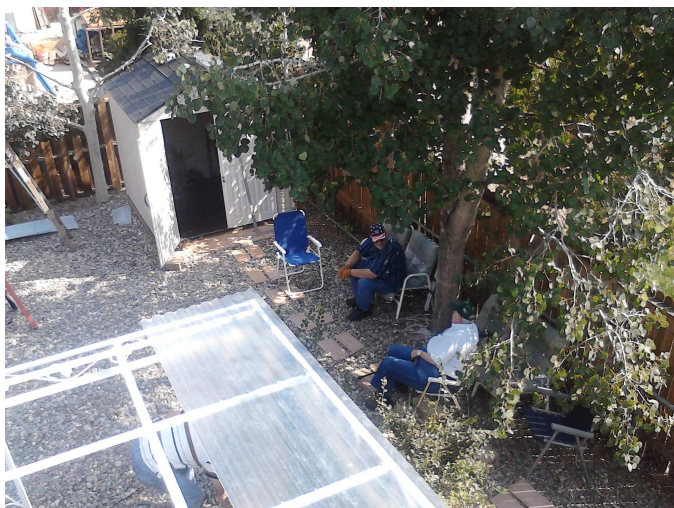




Dropping the tower



WV7T holding down the roof



WØRAA supervising



This tower was a big job

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## Useful Summits On The Air Links

<http://www.sota.org.uk>  
Main site about the SOTA program

[www.sotawatch.org](http://www.sotawatch.org)  
Alerts, spots and a forum  
Register to participate

[database.sota.org.uk/](http://database.sota.org.uk/)  
Log chasing and activating QSO's  
Register to enter QSO's and see more detail

<http://www.adventureradio.de>  
SOTA Maps Webpage

W0's SOTA Website ...lots of "how to info"  
<http://www.w0-sota.org/>

"How to Chase" (PDF)  
"How to Activate" (PDF)

**Important SOTA Steps**  
**Plan your SOTA activation:**

- Street map + trail/topo maps
- Know your SOTA summit # W6/CC-XXX
- Log/pencil, Radio, battery, antenna, coax/accessories
- Food, water, extra clothing, cell phone
- Post your intentions: Freq/time/summit etc

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- Stage your gear before hand at home.
- Have FUN ...but keep an eye on the WEATHER!

# CONTESTS

## September 2012

### September 2012

+ All Asian DX Contest, Phone 0000Z, Sep 1 to 2400Z, Sep 2

+ Russian RTTY WW Contest 0000Z-2400Z, Sep 1

+ Wake-Up! QRP Sprint 0600Z-0800Z, Sep 1

+ Colorado QSO Party  
1200Z, Sep 1 to 0400Z,  
Sep 2

### Colorado QSO Party!

1200Z September 1—0400Z September 2, 2012

Join other stations on the air *Saturday, September 1st* and work to contact hams in Colorado's 64 counties! Operate CW, Phone, Digital, or any combination on all HF contesting bands, VHF, and UHF. Mark your calendars now and join us on the air in September!

Details at:  
[www.ppraa.org/coqp](http://www.ppraa.org/coqp)

- Rules
- Logging Software
- Award Categories
- County Activation Plans
- Latest News



+ CWOps CW Open 1200Z-1559Z, Sep 1 and 2000Z-2359Z, Sep 1 and 0400Z-0759Z, Sep 2

+ AGCW Straight Key Party 1300Z-1600Z, Sep 1

+ DARC 10-Meter Digital Contest 1100Z-1700Z, Sep 2

+ Tennessee QSO Party 1800Z, Sep 2 to 0300Z, Sep 3

+ MI QRP Labor Day CW Sprint 2300Z, Sep 3 to 0300Z, Sep 4

+ ARS Spartan Sprint 0100Z-0300Z, Sep 4

+ NCCC Sprint Ladder 0230Z-0300Z, Sep 7

+ PODXS 070 Club Jay Hudak Memorial 80m Sprint 2000 local, Sep 7 to 0200 local, Sep 8

+ WAE DX Contest, SSB 0000Z, Sep 8 to 2359Z, Sep 9

+ Arkansas QSO Party 1400Z, Sep 8 to 0200Z, Sep 9

+ ARRL September VHF QSO Party 1800Z, Sep 8 to 0300Z, Sep 10

+ SKCC Weekend Sprintathon 0000Z-2359Z, Sep 9

+ North American Sprint, CW 0000Z-0400Z, Sep 9

+ Swiss HTC QRP Sprint 1300Z-1900Z, Sep 9

+ NAQCC-EU Monthly Sprint 1800Z-2000Z, Sep 10

+ CWops Mini-CWT Test 1300Z-1400Z, Sep 12 and 1900Z-2000Z, Sep 12 and 0300Z-0400Z, Sep 13

+ NCCC Sprint Ladder 0230Z-0300Z, Sep 14

± ARRL 10 GHz and Up Contest 0600 local, Sep 15 to 2400 local, Sep 16

± SARL VHF/UHF Analogue/Digital Contest 1000Z, Sep 15 to 1000Z, Sep 16

± Scandinavian Activity Contest, CW 1200Z, Sep 15 to 1200Z, Sep 16

± SRT HF Contest SSB 1300Z, Sep 15 to 1300Z, Sep 16

± South Carolina QSO Party 1400Z, Sep 15 to 0300Z, Sep 16

± QRP Afield 1500Z, Sep 15 to 0300Z, Sep 16

± Washington State Salmon Run 1600Z, Sep 15 to 0700Z, Sep 16 and 1600Z-2400Z, Sep 16

± Feld Hell Sprint 1600Z-1800Z, Sep 15

± QCWA Fall QSO Party 1800Z, Sep 15 to 1800Z, Sep 16

± North American Sprint, SSB 0000Z-0400Z, Sep 16

± WAB 144 MHz QRO Phone 1000Z-1400Z, Sep 16

± Run for the Bacon QRP Contest 0100Z-0300Z, Sep 17

± NAQCC Straight Key/Bug Sprint 0030Z-0230Z, Sep 20

± NCCC Sprint Ladder 0230Z-0300Z, Sep 21

± FOC QSO Party 0000Z-2359Z, Sep 22

± AGCW VHF/UHF Contest 1400Z-1659Z, Sep 22 (144) and 1700Z-1759Z, Sep 22 (432)

± BARTG Sprint 75 1700Z-2100Z, Sep 23

± QRP Homebrewer Sprint 0000Z-0400Z, Sep 24

± SKCC Sprint 0000Z-0200Z, Sep 26

± CWops Mini-CWT Test 1300Z-1400Z, Sep 26 and 1900Z-2000Z, Sep 26 and 0300Z-0400Z, Sep 27

± CQ Worldwide DX Contest, RTTY 0000Z, Sep 29 to 2400Z, Sep 30

± Texas QSO Party 1400Z, Sep 29 to 0200Z, Sep 30 and 1400Z-2000Z, Sep 30

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## ***'Route 66 On The Air' special event between September 13-21st.***

The purpose of this event is to offer amateur radio operators a fun way to 'Relive the Ride' of their own memories of Route 66, and to celebrate the highway's 82nd anniversary.

The U.S. Highway 66 established in 1926, was the first major improved highway to link the west coast with the nations heartland. Through stories, songs, and TV shows, the highway came to symbolize the spirit of the freedom of the open road, inspiring many to see America.

Look for the following 19 stations (two are rovers) operating in or around the major cities along the old 'Route 66' from Santa Monica, California, to Chicago, Illinois:

### **Stations / City / Club**

W6A - Santa Monica, CA - Westside Amateur Radio Club



W6B - Los Angeles, CA - Westside Amateur Radio Club  
W6C - San Bernardino, CA - Citrus Belt Amateur Radio Club  
W6D - Victorville, CA - Victor Valley Amateur Radio Club  
W6E - Barstow, CA - Barstow Amateur Radio Club  
W6F - Kingman, AZ - Hualapai Amateur Radio Club  
W6G - Flagstaff, AZ - Northern Arizona DX Association  
W6H - Albuquerque, NM - New Mexico Amateur Radio Alliance  
W6I - Amarillo, TX - Chapter 141, QCWA  
W6J - Elk City, OK - Western Oklahoma Amateur Radio Club  
W6K - Oklahoma City, OK - No Club Affiliation  
W6L - Tulsa, OK - Tulsa Amateur Radio Club  
W6M - Riverton, KS - Wichita Amateur Radio Club  
W6N - Joplin, MO - Joplin Amateur Radio Club  
W6O - Lebanon, MO - Lebanon Amateur Radio Club  
W6P - St. Louis, MO - St. Louis Amateur Radio Club  
W6Q - Chicago, IL - Six Meter Club of Chicago

#### **ROVER STATIONS**

W6R - Goleta, CA - Santa Barbara Amateur Radio Club  
W6S - Santa Barbara, CA - No Club Affiliation

Special event stations are expected to be found in the vicinity of the following frequencies. (Look for digital modes in the standard band segments for such mode) All frequencies +/- QRM:

**CW**- 3533, 7033, 10110, 14033, 18080, 21033, 24900, 28033 and 50033 kHz

**SSB** - 3866, 7266, 14266, 18164, 21366, 24966, 28466 and 50166 kHz

**R66 MOBILE Operations** - Any amateurs operating while actually driving along Route 66 during the special event period are encouraged to take part in "Route 66 On The Air", by using the designation "mobile 66" for SSB or "/m66" for CW after their callsigns. All other amateur

radio operators are welcome to contact these mobile operators.

**REPEATERS** - Some of the participating clubs will also be operating this event from their local VHF/UHF repeaters. Check the ARRL repeater guide for possible repeater frequencies, if your in the local area.

Each participating club will issue their own QSL card commemorating this event. QSL information is available on the Web at:

[http://www.w6jbt.org/Route\\_ota/Gener...s/QSLRoute.htm](http://www.w6jbt.org/Route_ota/Gener...s/QSLRoute.htm)

For more details about the event and the certificate that is available, please visit the 'Route 66 OTA Site' at:

[http://www.w6jbt.org/Route\\_ota/Index.htm](http://www.w6jbt.org/Route_ota/Index.htm)

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## **SIX Meter Net**

Thursday evenings after the 10 meter net on **50.125** Mhz USB.

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**PPRAA / Pikes Peak Ten Ten  
Thursday Evening Net**



Please join us for the Thursday Night 10-meter net. We meet at 7:00 PM (Local) on or near **28.390 Mhz** USB. The goal of the net is for Technicians through Extra class operators to enjoy a weekly on-the-air chat, and experiment with various transmission modes. The outcome of the net has been a great success. It gives new operators a better understanding of radios, filter usage, mic gain, transmission line..etc.

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**We give out 10-10 numbers!**

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## MARC September VE Exam

The Mountain Amateur Radio Club VE Team will be conducting a VE session at 10 am on Saturday, September 1st, in the Community Meeting Room of the Woodland Park Library, 218 East Midland Avenue. The MARC VE Team is affiliated with the ARRL/VEC and examinations for all classes of license will be offered.

Full information, including driving directions to the Woodland Park Library, is available under "VE Sessions" on the MARC website at <http://www.nx0g.org/ve.html> or contact Wes Wilson (KØHBZ) at [k0hbx@arrl.net](mailto:k0hbx@arrl.net) or call (719) 687-8758.

If attending, please BE SURE to bring the following items to the session:

1. A valid **PHOTO ID**, driver's license preferred (if you do not have a valid photo ID, please call for alternative identification requirements).
2. Your **SOCIAL SECURITY NUMBER** (now required – this includes children).
3. Your **ORIGINAL** amateur radio license (if any) **AND** a **PHOTOCOPY** for the VE Team to keep.
4. The **ORIGINAL** of any relevant **CSCs** you have **AND** a **PHOTOCOPY** for the VE Team to keep.
5. **Cash, Check or Money Order for \$15** (standard ARRL VE Fee). Checks and money orders should be made out to MARC and covers all the different exams you wish to take at the VE session.

MARC VE Team policy, as with many VE Teams, is to not allow same day retests on failed exams.

For already licensed hams, MARC members should be monitoring the MARC repeater system 146.820- or 448.650- (both 107.2 Hz) if you need help with talk-in.

73 Wes KØHBZ

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## **Ditz and Bitz**

**For Sale or Wanted**

Have something to sell or trying to find something or just want to see something get to a good home? Send it in to [wv7t@arrl.net](mailto:wv7t@arrl.net) and see it in Dits and Bits. Also, visit the PPRAA Forum's online Ditz and Bitz at [www.ppraa.forumotion.net](http://www.ppraa.forumotion.net) !!

## FOR SALE

Two UHF Base antennas, white fiberglass verticals. 410-470 MHz \$40 each.

One 900 MHz yagi. \$40.

Joe Quintana, NØENM, 640-4530

## FOR SALE

Kenwood SM-220 station monitor with BS8 panadapter w/manuals (owners/repair)

Asking \$200

Kim KDØNQM 229-9005

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# PPRAA August Board Meeting Minutes

06 August 2012

Call to Order: 6:32pm, Members present were Doug Nielsen, Pam Scott, Kerriane Dixon, Jim Bishop, John Wishart, Virgil Yost, Mike Derbort, Tom Brereton, and Diana Nordstrom

## 2012 Goals and Objectives

- New Website with Members only area

and integration between Forums site and calendar

- Membership - Goal 150
- Club Station – Online and available
- 0-beat – At least one technical article per month
- Scholarship fund

Approval of the July board meeting minutes – Pam Scott moves to approve, Doug Nielsen seconds, the board approves the minutes as presented in the Ø-Beat

## Committee Reports

- Megafest 2012 – Report not ready at this time
- Treasurer's report
  - Financials - \$11,807 but still have money from Megafest to deposit
- Building committee
  - Shed & Station Building –It was recommended that we use an old refrigeration truck instead of just a trailer. Still gathering quotes
  - Lastly 80 ft for of Rohn 80 tower – Still attempting to coordinate volunteers to bring down the tower
- Electronic Media –AARL club page finally updated to remove old contact information.
- HAMCon – Several good keynote speakers being planned, lots of big names

## New Business

- Picnic – Need a location, plan for the 26<sup>th</sup> of Aug or 8<sup>th</sup> or 9<sup>th</sup> of Sept. Pam Scott motions for no more than \$300 for food, Diana Nielsen seconds, the board



approves. At the General Meeting, Pam Scott motioned to reimburse Kerrianne Dixon \$30 for reserving a location, Doug Nielsen seconded, present board members approved the motion.

- Colorado QSO Party – Some concern about finding information, it is all on the website.
- DXPEDition – ZL9HR team looking for donations to go to Campbell Island. Board notes that we have expended our budget for this year and cannot afford to donate.
- TechDay – Sept 15<sup>th</sup> at the TLM Fire Station

### Special Events

- PPARES needs volunteers, see the website for details:  
<http://www.wavelinedata.com/ARESPSE/Default.aspx>

### Unfinished Business

- **HAM Breakfast** - Canyon Coffee, Sept 1<sup>st</sup>, 8am Conflicts? QSO party that morning, board elects to push the breakfast to the 8<sup>th</sup>.

### Around the table

Pam Scott: Feedback from Megafest vendors was that the scouts were a big help, should make sure they attend again

Jim Bishop: KCØMJP and self – special events station for PP Hill Climb, working SSTV and 20m from 8 to 8.

John Wishart – Ute Pass Storage in Crystola may have storage units for sale

Virgil Yost – Should we aim for 2 smaller sheds or one big? Will check on pricing for permits for permanent structures. Consider making event buttons for Megafest

Adjourn – Doug Nielsen moves, Tom Brereton seconds, board adjourns at 7:38pm

NEXT BOARD MEETING: MONDAY, 10 SEPTEMBER 2012. LOCATION: DANIELS TACO SHOP.

## PPRAA August Club Meeting Minutes

08 August 2012

### Call to Order at 7pm

Introductions (Around the room) –  
Name – Call Sign

Silent Keys – None

Approval of the July club meeting minutes – Dick, WØRAA moves, Gordon, KDØRGD, seconds, the club approves the minutes as presented in the Ø-Beat

### Committee Reports

- **Treasurer's Report** – The Club has \$13,068.03 in its accounts. Megafest was down about \$60 from last year

- **Club Station update** – Still need volunteers to help take down a 40ft Rohn tower, still looking for buildings for storage and station. If you have any ideas, or wish to donate, please let a board member know.

- **Electronic Media** – New website! You can join or renew your membership, pay for your Megafest table, or make a donation online!

- **Scholarship Fund** – Please donate for the 2013 school year. If you

donate online, let the treasurer know the money is for the Scholarship Fund.

- **Tech Ed** – Need more VEs, Classes: Extra is from 1-3pm, General is from 3 – 5pm on Sunday afternoons, additional Extra classes are offered Tuesdays from 2-4pm.

- **ARES Events** - ARES is looking for volunteers! Signup at <http://www.ppare.net>

#### Current Events

- **Club Picnic** – Sunday, August 26 at Metcalf Park from 11am – 3pm, notify [picnic@ppraa.org](mailto:picnic@ppraa.org) of your side dish. There may be a small fox hunt event!
- **Megafest** – Thanks for the great turn out! We had 442 attendees and from a table of donated spare equipment, we gained about \$300 for the Scholarship Fund!
- **COQP** – Sept 1. Category sponsorships are still available! Only \$40 to sponsor a plaque, contact a board member if you are interested. Email Doug, N7LEM, if you want to be listed as activating a county.
- **TechDay** – September 15, 9:30am at the Tri-Lakes Monument Fire Station. Flier is available on the club website.
- **Repeat Work** – The 97 and 48 Repeaters will be down for 3 weeks starting NOW. Weather net is using 147.345 tone 107.2 for backup.
- **Tech Ed** – General Class: 3-5pm on Sundays, Extra Class: Sundays 1-3pm or Tuesdays 2-4pm, looking for a Tech tutor for one student, looking to start a code class if interested talk to WV7T. Centennial HAM books next to PPRAA board at the back of the store. Looking for a high res camera for better pics in the Ø-Beat. Testing on Sat Aug 11, 9am. Colorado Tech room 112

- **PPARES** - Hill Climb is this weekend! Volunteers always needed, see website for more information: <http://www.wavelinedata.com/ARESPSE/Default.aspx>
- **Antenna Party** - 18th Aug. Free sodas during take down and put up, free lunch after. See Jim, WØEM for more information.
- **Special Events Station** - During Hill Climb, check KDØKQL on QRZ for more info
- **Club Elections** - October's meeting! If you're willing to donate your time, please consider joining the board or officers.
- **Open Positions** – We have some open positions; let a board member know if you are interested.

**Ham Breakfast**, Canyon Coffee, 1791 S. 8th Street, Saturday, 8 September 2012, Time is from 8:00-9:30 AM

**Thursday night net:** Every Thursday at 7pm on 28.390.

#### Program

**Adjourn** - Doug Nielsen moves to adjourn, the room seconds, meeting is adjourned at 9pm

**NEXT MEETING:** WEDNESDAY, 12 SEPTEMBER 2012. LOCATION: IHOP 5749 STETSON HILLS BLVD,

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# TechDay 2012

Get Started in Ham Radio

Come join us on **Saturday, September 15th, 2012** at the **Tri-Lakes Monument Fire Administration Complex at 166 Second St.** in beautiful **Monument, CO** for a half day workshop aimed primarily at the **new Technician Licensees** to help them get started in ham radio. While you're here you'll learn what it takes to be

a ham radio operator, brush up on your DXing skills, test your own ham radio equipment, check out some sweet mobile radio installations, and ask an Elmer "What's so cool about 10 meters?" ***Getting started in ham radio has never been so much fun!***

## Schedule of Events

**9:30 am**

- Youth DXpedition to Costa Rica  
by Anna Veal WØANT

**10:30 am**

- Mountaintop Operating  
by Steve Galchutt WGØAT

**11:30 am**

- Home Station Setup  
by Anna Veal WØANT

**12:30 pm**

- Getting On the Air  
by Brandon Hippe KDØPWF

**1:30 pm**

- Radio Equipment 101  
by Shel KFØUR

\* Each presentation is approximately 15 minutes with 5 minutes of Q&A at the end. Events subject to change

## Booth Presentations

### Help with Radio Programming

hosted by Kyle Hippe KYØHIP &  
Cole Turner WØCOL

### Check Your Radio Performance

hosted by Bob Witte KØNR

### See an HF Station

hosted by Dan Scott WØRO & Stu  
Turner WØSTU

### Ask Any Question - The Elmer Booth

hosted by Paul Swanson AAØK & Shel  
KFØUR

### Understand Mobile Installations

hosted by James Bucknall KDØMFO &  
Ethan Bucknall KDØMFP

### Getting Your Ham Radio License

hosted by Brandon Hippe KDØPWF &  
Eric Hippe NØHIP

### Ham Radio & Public Service

hosted by Randy Meadows KNØTPC



Tech Day 2012 is proudly sponsored by the WØTLM Amateur Radio Club and the Pikes Peak Radio Amateur Association.





# Use Beacons to Spotlight Band Openings

*Radio beacons alert you to where the open bands are.*

Steve Sant Andrea, AG1YK

"I wonder if any of the bands are open?" you think to yourself. "I guess I'll tune around and see if I hear anyone."

That's certainly one way to see what the ionosphere is up to, but there is also a way to tell not only *if* the band is open but *to where* and how good the opening is.

## Beacons — Ham Radio Lighthouses

A beacon is a station that broadcasts a repeating CW signal on a specific frequency. As a lighthouse guides ships, a beacon helps guide your operating toward the frequencies where your RF will do the most good. Listening for beacons can tell you quickly whether a particular band is open and if so to what area and how strong signals are.

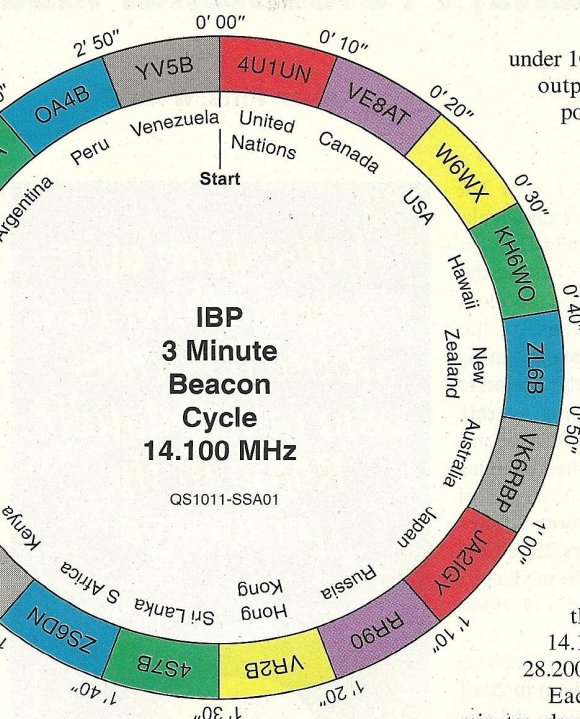
A band can be dead because there's no propagation or because no one is transmitting. We can't do anything about the first problem but for the second problem beacons come to the rescue. The multitude of amateur beacons ensures that there is always a station transmitting.

## Finding Beacons

"Okay, so beacons can tell me which band is open to where, but how do I find a beacon for the frequency and area I am interested in?"

A fair question since there are beacons operating on all of the ham bands. Initially, the best way to become familiar with the available beacons is to access some of the beacon lists on the Internet. Beacon lists can be found on the AC6V Amateur Radio and DX Reference Guide Web site ([www.ac6v.com](http://www.ac6v.com)). At AC6V, just select BEACONS from the master index and you will open the beacon page that has links to various beacon lists. Another list can be found at The DXZone ([www.dxzone.com](http://www.dxzone.com)) listed under DX RESOURCES.

There are also many beacon lists for individual bands. For the 10 meter enthusiast, 10-10 International ([www.ten-ten.org](http://www.ten-ten.org)) maintains a list of 10 meter beacons. Beacon lists also exist for 6 and 2 meters. In fact, there are lists for all the ham bands up to 79 GHz!



This "clock" represents a complete 3 minute cycle of the 18 IBP beacons operating throughout the world.

## Using Beacons

"Well, I searched the lists and came up with some beacons. Now what?"

First, if you have a beam antenna, remember to turn it to the proper azimuth for the beacon's location. Now tune your receiver to the frequency of the beacon you have selected.

The majority of beacons operate in the CW portions of the bands. Can't read CW? Since beacons are automated they repeat the same transmission. If you are on the right frequency and the station you hear repeats the same CW sequence over and over — in perfect code — it is most likely the beacon you are seeking. Note that even if you lack CW skills, if you listen to these repeating patterns for a few minutes you will be able to make out the individual code characters. Just write them down and use a Morse code table to decipher them yourself.

Now that you have the beacon you want, note how strong it is. Check its listing again. How much power is it radiating? Most beacons are under 100 W with many

under 10 W. Some broadcast a "stepped output," transmitting once at full power then reducing the power of transmissions following a specific pattern. If you are hearing a 10 W beacon at S-2 then your 100 W station will produce an S-4 or 5 signal in the beacon's area. Worth a shot, right?

## International Beacon Project

Of particular note is the International Beacon Project (IBP), a system of 18 beacons located all over the globe. Organized and managed by the Northern California DX Foundation ([www.ncdxf.org](http://www.ncdxf.org)), these beacons all operate on 14.100, 18.110, 21.150, 24.930 and 28.200 MHz.

Each beacon transmits every 3 minutes, day and night. A transmission lasts 10 seconds and consists of the beacon's call sign sent at 22 WPM followed by four 1 second dashes and then a 2 second gap. The call sign and the first dash are sent at 100 W. The remaining dashes are sent at 10 W, 1 W and 100 mW. At the end of the gap the next beacon begins its transmission and the first one repeats the pattern on the next frequency.

For example (see diagram), beacon 1, 4U1UN, begins at cycle time 0 minutes and 00 seconds and transmits on 14.100 MHz for 10 seconds. Next, beacon 2, VE8AT, transmits on 14.100 MHz beginning at cycle time 10 seconds till cycle time 20 seconds. This continues until beacon 18, YV5B, begins transmitting on 14.100 at cycle time 2 minutes and 50 seconds ending at cycle time 3 minutes. Then 4U1UN starts the cycle over. This pattern is repeated on the other frequencies. This regular pattern also provides a method for identifying the individual beacons. If you have an accurate clock synchronized to a time standard, the time you hear a beacon will identify which beacon is transmitting.

So the next time the band seems dead, check its pulse by listening for a beacon.

Steve Sant Andrea, AG1YK, is ARRL Assistant Editor. He can be reached at [ag1yk@arrl.org](mailto:ag1yk@arrl.org).

QST



**Membership Application**  
**Pikes Peak Radio Amateur Association, Inc.**  
**P.O. Box 16521, Colorado Springs, Colorado 80935**

Date: \_\_\_\_\_ ☐ New Membership ☐ Renewal

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Call: \_\_\_\_\_ License Class: \_\_\_\_\_ Telephone: \_\_\_\_\_

Are you an ARRL member? ☐ Yes ☐ No

Additional Name: \_\_\_\_\_ Call \_\_\_\_\_ Class \_\_\_\_\_ ARRL member? ☐ Yes ☐ No

Additional Name: \_\_\_\_\_ Call \_\_\_\_\_ Class \_\_\_\_\_ ARRL member? ☐ Yes ☐ No

Additional Name: \_\_\_\_\_ Call \_\_\_\_\_ Class \_\_\_\_\_ ARRL member? ☐ Yes ☐ No

E-mail address: \_\_\_\_\_

☐ Full Member - \$15.00

☐ Full Member over 65 - \$10.00

☐ Free - VE Signature Required:

☐ Family Membership (same address) - \$18.00

☐ Family Membership (both over 65) - \$12.00

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**Pikes Peak Radio Amateur Association, Inc.**  
**P.O. Box 16521**  
**Colorado Springs, CO 80935-6521 USA**

**To:**