



PAARAgraphs

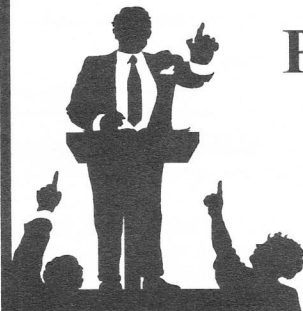


Celebrating 64 years as an *active* ham radio club—*Since 1937*
Newsletter for the Palo Alto Amateur Radio Association, Inc.



CALENDAR

- November....2, **PAARA Meeting, 7:30**
Menlo Park Recreation Center
700 Alma Street, Menlo Park
 - November....7, **PAARA Board Meeting, 7:30**
Red Cross Bld., 400 Mitchell Ln., Palo Alto
 - December.... 7, **PAARA Meeting, 7:30**
 - December... 12, **PAARA Board Meeting, 7:30**
 - January.....4, **PAARA Meeting, 7:30**
 - January.....9, **PAARA Board Meeting, 7:30**
- 2 m **CODE PRACTICE**, 2000 to 2030 PST Tues
N6NFI 145.23 repeater
Also try 7.100 for 24 hr code practice



PROGRAM

November 2, 2001
7:30 P.M.

Speaker:
Brad Wyatt, K6WR

“From your laptop anywhere”

Join us for **pre-meeting eyeball**
at **Su Hong Restaurant**, 1039 El Camino Real, Menlo Park
Food will be served at 6:00 sharp, so guests will be on time for the PAARA meeting.
Those arriving late will be responsible for their own order and bill.

—PAARA Radio NET every Monday evening at 8:30 P.M., local time—
on the 145.230 -600 MHz repeater, PL tone off



Radio Bugs

—Rick Ferranti WA6NCX
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Antsy in Arlington

Our house in Arlington, Massachusetts, just a few miles from Boston, was a typical New England starter home, built in the so-called Cape Cod style. That's basically a box with four rooms below, and if the owner chooses to finish it, a couple of rooms upstairs. Because the upstairs "half-story" takes up what was supposed to be the attic, the upstairs rooms have sloping ceilings following the roof, and are narrower than the first floor because short vertical walls are built to meet the roofline before it extends all the way down to the upstairs floor. This leaves two long triangular cross-section crawl areas, extending along either side of the second floor, up under the eaves of the house.

The resourceful ham sees these crawl areas as ideal places to stash hardy items like antenna parts or the

(Continued on page 96) Radio Bugs

From your laptop anywhere

to around the world everywhere using Amateur Radio

An exciting new ham experience---operating an all band ham station from your laptop over the Internet--- will be presented by veteran ham, **Brad Wyatt, K6WR**

For those who don't know Brad, his achievements are impressive. He was once at No.1 on the DXCC Honor Roll with over 350 countries confirmed, he served as ARRL Pacific Division Director, and in business worked for IBM in various capacities for 20 years until retirement. He was first licensed in 1946 while a student at Stanford where he earned a BA and MBA. Brad was also involved in the first two-way SSB QSO via Amateur Radio.

For his presentation, Brad brings us his detailed personal experience while operating in this latest pioneering mode, "Remote Amateur Radio Operation via the Internet". This is a "cannot miss" presentation.



PAARA PONDERINGS

de VIC BLACK, AB6SO

The term "wireless" has become a familiar buzzword among Internet, cell phone, computer, paging and networking groups. Originally, "wireless" was used about 100 years ago to describe radio as a form of telegraphy without wires. The term radio first appeared in 1906. Albert Einstein said, "Everything should be made as simple as possible, but not simpler." When asked to describe how wireless worked his simple reply was, "The wireless telegraph is not difficult to understand. The ordinary telegraph is like a very long cat. You pull on the tail in New York and it meows in Los Angeles. The wireless is the same, only without the cat."

The late husband and wife team of **Lloyd Colvin W6KG** (died 1993) and **Iris W6QL** (died 1998) were experts at making the cat meow. Lloyd was first licensed as an Amateur in 1929. They traveled from their home in Lafayette in the East Bay Area to all parts of the world to operate DXpeditions. The Yasme Foundation reports that during research for a book on their lives it was discovered that they were issued more than 100 DXCC certificates for confirming contacts with at least 100 DXCC entities, or "countries", while operating from more than 100 countries around the world. This is being called a "DXCC Squared". The Colvins were very active during the 1950s and especially from the 1960s until their deaths in the '90s. In addition to the 109 DXCC Awards identified so far as earned on expeditions using a multitude of call signs, they also earned dozens from home on various bands and modes. During their travels, they made more than one million contacts and amassed one of the largest QSL collections in the world.

Of course even the Colvins had to start someplace. Most of us remember our first contacts with one of our buddies or club mates in our own city. New PAARA member **Jim Rice K6AK**, who quickly moved up from Technician class to Extra Class, just made his very first HF contact and simultaneously discovered the "magic" of Amateur Radio. Jim said,

"Saturday evening October 6 at 8:55pm I made my first HF contact. The station was **KC4AAA** on 14.347 MHz. Guess where he was? He was 150 meters from the South Pole. There was a big pile up, and John, the operator, was leaving about a four second time gap before he acknowledged. I waited a few seconds and then put out my call. He came right back and boy was my brain flying. I managed to give his signal report and my QTH as well as telling him it was my very first HF contact. I told him 'LIFE DOES NOT GET ANY BETTER!' He came back and gave me a 5/3 signal report and asked me about the weather. I was thinking, 'Forget my weather. What's YOUR weather like?' I actually asked him to give my signal report again, (my brain wasn't functioning properly). I was dying to ask him some questions and I knew it is not good to do when there is a pile up. So I apologized about wanting to ask some questions and asked him if it was

ok. He came back and seemed very happy to answer. I asked him how long he has been there and what he does. I recall him saying something about one year and doing experiments as well as learning about astronomy. My better judgment told me I'd better sign off or the pileup would chip in and put a contract out on me. That was about it, and unfortunately I forgot to say 73. In retrospect, I think my brain malfunction was a combination of pile up anxiety, first contact excitement, trying to follow ARRL procedures, as well as continually thinking, 'Hey, my rig and antenna work.' (REPEAT/REPEAT/REPEAT). I will always remember this contact. John was very nice and maybe I reminded him and the pileup about their very first HF contacts. I wonder what my next contact will be like. Stay tuned."

Last month I promised to highlight a different linked LVHF/UHF repeater system in the Northern California region each month. Last month I discussed the Alum Rock Repeater Club linked system of 11 repeaters on 1200 MHz. Rather than move on, we'll look at some exciting additions to the same system this month. Two new repeater sites have been added since last month. The new ones are at Loma Prieta, near Los Gatos, on 1282.200 with 88.5 PL and Mount Oso, 1287.600 MHz with 88.5 PL.

Even more exciting is the fact that the Alum Rock system is now linked to the California Microwave Relay Association, which bills itself as "The World's Largest Interconnected Microwave Repeater/Remote Base System" with 21 repeaters on the 1200 MHz band. In addition, most of those sites also have 222 MHz band repeaters, which can be linked as needed by the repeater owners. The CMRA system covers the area from Hanford and Visalia, near Fresno, southward along the coast and through the Central Valley to the Mexico border. Eastward, it covers Southwest Nevada around Las Vegas and Lake Havasu City, Southwest Arizona to Flagstaff, Yuma and Kingman and even into Saint George, Utah. The Alum Rock and linked CMRA systems now have a total of 34 repeaters on the 1200 MHz band plus many on 222 MHz and 4 on 2400 MHz.

A quick rundown of the main CMRA repeaters will allow you to program in coverage for traveling through most of Southern California. The locations, frequencies and PL tones are: Atascadero, 1286.75 (110.9) and 224.86 (110.9); Bakersfield 1285.45 (103.5); Paradise near Las Vegas 1284.05 (110.9) and 224.86 (110.9); Solvang 1284.05 (110.9) and 224.880 (131.8); Santa Barbara 1286.200 (110.9) and 224.040 (131.8); Fillmore 1284.450 (103.5); Simi Valley 1286.200 (103.5) and 224.86 (103.5); Burbank 1286.700 (103.5); San Gabriel Mountains 1286.400 (103.5), 1284.050 (104.5) and 224.060 (131.8); near Barstow 1283.50 (110.9) and 224.080 (131.8); San Bernardino 1285.200 (103.5) and 224.340 (110.9); Riverside 1285.45 (103.5); Lake Havasu City 1284.450 (110.9) and 224.860 (110.9); and Kingman, Az 1286.7 (110.9).

The CMRA keeps its repeaters open, but paid members (Associates) have priority use during emergen-

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WEB WANDERINGS

de Vic Black, AB6SO

Most Amateur Radio operators love to discuss antenna design. Steve Yates AA5TB has a web site at <http://www.geocities.com/aa5tb/loop.html> for Small HF Transmitting Loop Antennas. Most of his designs feature antennas that are about 1/10 full size in circumference. There is an increasing loss of efficiency for any antenna less than 1/3 full size, but the trade off is a functioning antenna that will work in a very small location. Efficiency can be kept close to the design optimum by using all welded joints to reduce resistance losses and by using large diameter tubing to increase the surface area for maximum "skin effect" conduction. Small loop antennas are more popular in Europe than in the US because garden space tends to be smaller in European cities. They can be used indoors where no other antennas will fit and they work well at ground level.

Steve's experiments even include a 3-inch diameter loop for 2 meters. There are compelling reasons to use these little 2 meter antennas even though they aren't much more efficient than the usual "rubber duck" antenna. Small loops produce a distinct figure 8 radiation pattern with very sharp nulls, meaning that you could use them to good effect for radio direction finding.

On HF, the null can be used to notch out interference without losing much of the intended signal since they have a rather broad half power beam width. On VHF

they can be used to notch out intermod sources. Small V loops need large, high voltage capacitors to tune out their inductive reactance and bring them to resonance. Since the capacitors are difficult to buy, you're left with the interesting experiment of designing and building your own simple variable capacitors. In addition to Steve's own work, he refers to other Amateurs' work in nearly 30 small magnetic loop antenna web sites, which are linked to his page.

The Ventura County Amateur Radio Society maintains another site with a project page including antenna designs. Their recently launched site at <http://www.qsl.net/vcars> features Weak Signal VHF/UHF activity. This one also includes links to other similar sites and promises to be a good source of information concerning VHF records and operating data. Projects other than antennas will be added in the

near future. Their contest page is updated weekly.

Ian White G3SEK, who writes a monthly column "In Practice" for RadCom and has published VHF/UHF books for the Radio Society of Great Britain, maintains another site of considerable interest to VHF operators. Go to <http://www.ifwtech.com/g3sek>. Many of his links don't often show up on American web sites so you'll find fresh information here. Ian highlights his newest RSGB book "The VHF/UHF DX Book" as well as follow-ups to his monthly column. He highlights the design and operation of RF Poer Amplifiers, Moonbounce and Long Boom VHF/UHF Yagi antennas. This site could be especially useful with the new satellites coming on line. You may find a link to help you have more fun with either AO-40 or the new APRS enabled PacSat.

Some guys seem to be having so much fun with Amateur Radio that they should be ashamed of themselves. One who comes to mind is John Nicholson K7FD of Seal Rock,

Oregon. In an e-mail, John told me, "A quick stop for a milkshake on the way home netted another infamous K7FD slip of the tongue, proving without a doubt that RF affects us in mysterious ways. After scanning the milkshake menu and all the delicious candy toppings, I let out with 'I'll have a Heathkit milkshake please!' Of course the young girl behind the counter gave me a blanker than blank stare as I quickly caught my error and said, 'errr, make that a Heath milkshake.' Adding insult to injury, my XYL, N7SG, was roaring the whole time, following up with 'Aren't those shakes green, Honey?' I guess this beats the time I said '73' while pulling away from the drive-up teller one day."



YEAH, THE PAINTER IS PAINTING THE SHACK RIGHT NOW, BUT I JUST COULDN'T MISS A BAND OPENING THIS GOOD!

John and XYL Annette like to experiment with Mini DXpeditions, sometimes in their own back yard. Other times they go off for the weekend to "rough it" in luxury hotels where they request rooms with take off angles toward Europe, Siberia or other locales they'd like to work with their portable stations. John uses an Elecraft K2. Not to be outdone, Annette carries her own K2 along on the trips. For a flavor of what they do, check their delightful web site at <http://home.teleport.com/~cqdx/qrp.htm>. John describes himself as "Late night CW QRP operator; can be grumpy at times. Needs to be fed regularly. Member of various goofy radio clubs."

Annette describes herself as "Surfer Girl, but mostly on the Web, of course!" She explains that, "Interference

(Continued on page 95) Web Wanderings



GOOD OLD STUFF

A Club for Senior Hams

—Robert Rickey, NF6P

The Old Old Timers Club (OOTC) is currently celebrating 50 years of existence. The organization was founded by Hubert E. Ingalls, WINQ, an Amateur Radio operator who was a career radio operator aboard ship and on shore. His purpose in founding the organization was to establish a common bond of radio communication between himself and friends and acquaintances who had similarly served as commercial radio operators and with whom he had communicated in the early days of "wireless." The organization grew in membership and was incorporated later as a non-profit organization under the laws of Rhode Island. It is not associated or affiliated with any other organization. It is essentially unchanged to this day except for the size of the organization.

Since its origination the organization has grown from the original thirteen members to more than 3,700. The establishment of a common bond between senior Amateur Radio operators remains a primary purpose of the club. The requirement for admission has also remained unchanged since founding. An applicant must have engaged in two-way radio communication as a radio operator at least forty years prior to being accepted as a member. It is not necessary that the applicant be active or licensed throughout that period, only that he was active at least 40 years prior to becoming a member and be licensed now. There are approximately 1,000 active members. Many have become silent keys. Some, of course, have dropped out.

The club was formed in 1948 during an on-the-air round table meeting. During the preceding Fall, 1947, Ingalls, put the idea of forming a club to Irving Vermilya, W1ZE, and Roland Bourne, W1ANA. The three of them wrote the Constitution and By-laws during that period, establishing the founding date to be 1947. Vermilya became the first OOTC president. He is best remembered as the operator at the old "CC," the Marconi station at South Wellfleet, Cape Cod, MA. Bourne became the first vice president. He worked for, and was a close associate of Hiram Percy Maxim. He held more than 70 patents himself when OOTC was born. He designed the membership certificate that is in use today. Ingalls, being a modest man, chose to be the first OOTC secretary rather than the president.

The club is composed of a president, executive secretary and ten directors, none of whom receive compensation, either directly or indirectly. The current president is Leland Smith, W5KL. He and the board of directors set the policies of the club and determine its activities. They provide direction to the Executive Secretary, Bert Wells, W5JNK who, with a clerk-typist, handle the day-to-day operation of the club. Their work includes the writing, reproduction and distribution of "The Spark Gap Times", a quarterly publication. It identifies the officers and directors,

contains a list of new members, gives their biographies, and includes lists of active and deceased members. Each issue provides a message from the president and describes the developments and rulings of the FCC or interest to the members. It also contains one or more articles of interest to the members. At intervals of approximately three years a publication containing a current roster, a list of deceased members, and a copy of the constitution and by-laws is prepared and distributed.

Persons interested in learning more about OOTC are invited to contact OOTC Headquarters, 3191 Darvany Dr., Dallas, TX 75220-1611. Phone 214/352-4743. E-mail: OOTC@juno.com

(From WORLDRADIO on line)

The true test of character is...how we behave when we don't know what to do.

—John Holt

(Continued from page 94) *Web Wanderings*

in my computer speakers in Oct, 1996 led me 3 houses away to K7FD's ham shack. During the process of solving the RFI problem, we fell in love. On Feb 27, 1997 I earned my first ham license and 52 days later I got my Extra Class ticket. In May, 1997 I married my elmer, John, and we've been hamming together ever since! Dx'ing and computers are my favorite hobbies. I am so happy I found this great hobby, Amateur Radio. I have met some wonderful people and found some great friendships all over the world."

By September, '97 Annette had earned DXCC and now has 252 confirmed countries. Her goal is to make the DXCC Honor Roll some day. Her main station rig is an Elecraft K2, which she uses both at home and portable.

For a different approach to portable operation, visit the VHF Rover site at <<http://www.qsl.net/n9rla>>. This site includes a large list of commercial and personal links about building and setting up rover and portable stations. For the uninitiated, rover stations are mobile setups that move from grid square to grid square during VHF contests. Since the goal is to work as many grids as possible for multipliers, the rovers are very popular and can be worked over and over again for credit as they move to new locales. Some rovers drive as much as a thousand miles during major contests to get from mountain top to mountain top in order to activate rare grids to contact operators who are collecting grids for the coveted VUCC Award. Yes, you can create a pile up on VHF.

An interesting aspect of working VHF contests is figuring out the distances covered by the supposedly "line of sight" links. For some web sites to help you calculate your DX contacts, visit <<http://www.indo.com/distance>> for a great circle calculator. Other good ones are Ed Williams' <<http://www.best.com/~williams/gccalc.htm>> and for the best introduction to great circle navigation with worked out examples, see Ed's <<http://www.best.com/~williams/avform.htm>>.

—Vic Black, AB6SO

(Continued from page 91) *Radio Bugs*

shipping cartons from new gear. I say hardy items because it gets mighty cold in that crawl space in the winter, with the uninsulated roof above and the soffit vents, open to the outside, below. And in the summertime with the sun beating down on the roof and no air circulation, it gets wicked hot, enough to fry anything so fragile as a radio. So it was that the shipping cartons from my SSB transceiver ended up in the crawl space. If I sell it later, I figured, the radio will bring a bit more money if it comes with its original boxes.

Years later a fancier transceiver came my way, and it was time to sell the old one. It was a fine autumn day when I screwed up enough courage to crawl down the stuffy, dusty area under the eaves and recover the radio's original shipping carton. I backed up out the door cut into the vertical wall and, happy to be back into the light and space of the hamshack, dropped the box onto the hardwood floor. Funny thing, I knew that the carton was actually a doubled box and had its original fitted styrofoam inserts, but when it hit the floor it didn't make a characteristic muffled thump. Instead, it sounded like BB's were rolling around in there, a kind of shhhhh-shhhh noise that got momentarily louder, lasted several seconds, and then subsided. I kicked the box; shhhh-shhhh it answered.

Cautiously, I pushed the box to the middle of the room and started undoing the string that tied the carton flaps together. They sprang open, and there was a new experience of amazement and horror -- the box was full of ants, hundreds and hundreds of huge black ants! It was the sound of their thousands and thousands of feet drumming on the flat surfaces of the styrofoam inserts that made the sound, and now with the box sitting open to the light they began swarming furiously in a tempest of movement. SsshhhHHHHHHH, I looked incredulously at the fully operational ant colony revealed before me, and couldn't close the box fast enough!

Down the box went, as fast as I could carry it, down the stairs and outside far from the house. The rest of the afternoon I took every other box out of that crawlspace, dozens of them, not even bothering to open any -- and laid them out on the curb for the next trash collection. None of the others made any noise; just that doubled transceiver box with the fitted styrofoam inside. But there weren't going to be any more ant homes in my house, under the eaves or anywhere else.

It still amazes me that the ants could choose a cardboard box in which to build a colony, especially in an area subject to such extremes of hot and cold. Maybe the styrofoam served as an insulator, buffering the temperature changes. When I recovered a bit and this box also went out in the trash (carried by gloved hands), I looked for an entry place perhaps chewed into its side -- these were the big black New England grease-eating ants, not the tiny California kind -- but there were no holes. They must have just crawled in through the thin slits in the box lids.

My old SSB transceiver got sold the following weekend. I got a good price for it, despite its lacking "the original box." I don't keep original boxes for anything anymore; I like to grow antenna farms, not radio ant farms!



Technical Tip

Radio Carrying Cases

by Vic Black AB6SO

With the recent proliferation of popular travel radios such as the FT-100, FT-817, TS-50, IC-706MkII and Elecraft K2 there is a rapidly growing need for carrying cases. This is especially true if you plan to travel by air and need to check your radio in as cargo baggage. One way to accommodate the need is to look at other hobbies to find out if someone has already solved the problem of transporting expensive equipment.

Ritz Camera sells the Quantaray Large Aluminum Case for cameras for \$59.95. Although this may seem expensive, it's reasonable compared to other alternatives such as the Halliburton aluminum camera cases. The case comes with foam inserts to allow customizing the interior to fit your radio and accessories. The outside dimensions are 13 X 18 X 6.5 inches. They formerly had a Medium size case, which may be even better suited for small radios, but those cases have been discontinued. Some stores may still have them in stock for about \$39.95. Try their web site to find the store nearest you. Go to <<http://www.ritzcamera.com>>.

Orion Telescopes and Binoculars sells three Accessory Cases, which may fit your needs. The Small Aluminum Accessory Case is 8 X 6-3/4 X 2-1/2 inches interior dimensions with precut internal foam to fit telescope eyepieces and accessories common to telescopes. You can open it up to fit or replace the interior foam to make a custom fit. It comes with key lockable latches for \$24.95.

The Deluxe Aluminum Accessory Cases include cubed foam interiors. You can just pull out 1-inch cubes to create the shape you want inside. The cases feature a textured aluminum exterior with reinforcing edge molding and metal corners for durability. They have key lockable latches and removable shoulder carry straps. The Medium size cases have interior dimensions of 12.2 X 8.3 X 5.5 inches and cost a reasonable \$29.95. The large boxes are 17.2 X 12.2 X 5.5 inches interior at a cost of \$44.95. Spare foam inserts are available for \$9.95 for the Medium case and 10.95 for the Large case. The Medium size foam could probably be adapted to the Small case. Orion has two retail stores, both in Northern California, or you can shop on-line or by mail order. One store is located at 89 Hangar Way in Watsonville (831-763-7006) and the other at 10555 S. De Anza Blvd, Cupertino (408-255-8770). Their web site is at <<http://www.telescope.com>>.

West Marine sells Waterproof Safety Cases by Pelican. The small box has interior dimensions of 8-1/2 X 6 X 3-3/4 inches for \$34.99 and comes in a choice of black or yellow color. The Medium box is 16 X 10-3/4 X 4 inches interior for \$84.99 in an orange color. The large box has interior dimensions of 17-7/8 X 11 X 6 in yellow color for \$134.99. All of the boxes have holes for padlocks, which are

(Continued on page 97) *Radio Carrying Cases*

(Continued from page 93) PAARA Ponderings

cies. There are more than 300 paid Associates with more than 40 in law enforcement and others in CalTrans, Fire and other public service, professional and technical fields. All Associates are required to be ARES members. The group is very much public service oriented and operates a Mobile Response Team equipped with off-road vehicles for emergency communication. The Team activates a quarterly drill, going out to a remote area, creating a Command Post for four days, and staging mobile off-road communications. They are major participants in the Baker to Vegas Relay, a running relay race through Death Valley for law enforcement personnel.

Visit the web sites of the Alum Rock Repeater Group and the CMRA at <http://www.ynn.com> and <http://www.cmraweb.org> for system diagrams, maps and other information.

—Vic AB6SO



(Continued from page 96) Radio Carrying Cases

These structural plastic boxes are nearly indestructible and feature a watertight O-ring seal. West Marine has almost 250 stores in the US. The local store is at Arastradero and San Antonio Roads in Palo Alto (650-494-6660) or go to <http://www.westmarine.com>. They also have a store in San Jose and one next door to Ham Radio Outlet in Oakland. Pelican cases are also available at Redwood Trading Post, 1305 El Camino Real, Redwood City. REI has stores in about 25 states. Their local store is at 1119 Industrial Road, San Carlos (650-508-2330). They stock Pelican cases in the kayak department in different sizes and styles ranging in price from \$27 to \$225. Try their web site at <http://www.rei.com>.

—Vic Black AB6SO



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All ad rates listed are per issue only.

1. Not for profit ads by association members for ham-related items and wants. No cost for business card size ads (additional space at \$2.50 per business card size)
2. For Profit organizations and/or individuals: \$5-business card size, \$25-half page, \$50 full page or back cover.

These fees may be reduced or waived in exchange for a valuable consideration that is given to the Association or its general membership. Such consideration must be in addition to any existing arrangements with the association.

The PAARAgaphs editors reserve the right to reject any ad deemed to be not in the best interest of the Association. All fees payable in advance by the year with "scanner-ready" copy or text-only ads. Give payment and copy to Bob Korte

PAARA • Palo Alto Amateur Radio Association • P.O. Box 911, Menlo Park, California 94026-0911

- Club meetings are on the first Friday of each month, 7:30pm at the Menlo Park Recreation Center, 700 Alma Street, Menlo Park, CA.
- Radio NET every Monday evening, at 8:30pm, on the 145.230-600 MHz repeater, PL tone off.

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