



The Pasadena Radio Club *Bulletin*

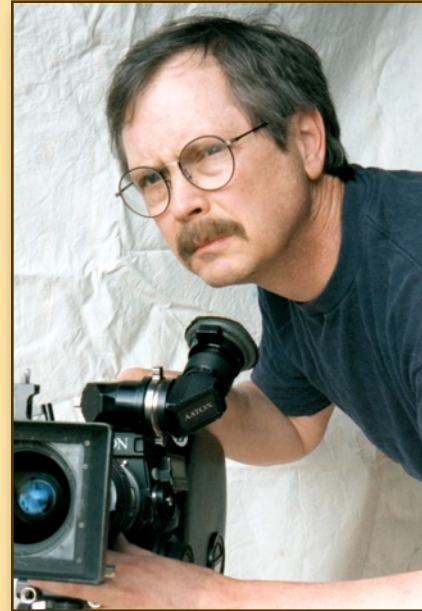
October 2008



Don't miss this! Our own Vice-President, Bruce Nolte, N1BN, will present his latest Field Day film.

2008 marks the fifth fully edited video Bruce has made for the club. The finished 24 minute film is light and fun and makes full use of music and digital effects. Bruce has held a Ham license since 1988 and has been very active in the Pasadena Radio Club for many years. He is a graduate of the film/video school of CalArts and has worked in documentary film production for almost thirty years.

October 28th Program



Bruce Nolte, N1BN

November Meeting Potluck

All members are invited to participate in our year-end holiday meeting, November 25th, which will include a light Potluck meal. It will be fun!

Details will be forthcoming Tuesday. At the October 28th meeting, there will be a signup sheet for either a salad, entree or dessert. Simply pick one and bring it to the November meeting. The club will be providing the beverages, cups, plates and silverware.



Crown City HF

Tom Berne, W6TAG

Noise

So this month we look at “noise”. I guess everyone has some idea of what that is: that annoying interference that you hear when listening on an unoccupied HF frequency and which sometimes makes it hard to copy radio transmissions. The background constant hissing (usually from lightning around the world plus some small addition from outer space) is called “white noise”. There are also spikes or crashes (usually near-by lightning strikes). Some noise elements are easily recognized as mankind’s activities, particularly if you are in an urban environment.

Noise is usually divided, by source, into internal and external (to your radio). We will not spend any time on internal noise because the moderately priced modern HF receiver input circuits that we have today are quite good at keeping the internal contribution of noise to a minimum. A discussion of receiver design and filtering (triple conversion, multifunction 32-bit floating point digital signal processing with adjustable IF width, IF shift, notch filter, etc.) at this time will lead us too far off the propagation track. Also, shelling out a lot more money for your rig may not be your best move because it is the (external) noise that is picked up by your antenna which causes most of the trouble. Fortunately, that is the part most amenable to correction.

There are two types of external noise: natural and man-made. Man-made noise comes from many sources. When we use the Q-sign “QRM” on the air we usually mean intentional radio transmissions from another amateur radio station on the same or nearby frequency or, in some instances, commercial stations in different parts of the world. Some of this can be reduced by using narrower band modes like CW or digital and directional antennas. We can prevent contributing to QRM by limiting on-the-air tuning up, using the least power necessary to make a readable contact and listening carefully and asking if the frequency is clear (QRL?) before settling down to call CQ.

But modern civilization creates lots of other electromagnetic interference. Some of the most common offenders are: overhead high tension power lines, automotive ignition systems, fluorescent and neon lighting, dimmer switches, welding machines, computers, electrical motors, TV sets, satellite receivers, cordless phones, etc. Some of these sources



can be identified and suppressed or avoided. When you have the option, locate your station and its antennas as far as possible away from high power lines, neon lights and large electric motors (on field day for instance). Also, try and get rid of fluorescent lights, dimmers, motors, and other sources of interference in or near your shack. Finally, this man-made noise tends to be vertically polarized (probably because it travels by ground wave propagation) and is somewhat suppressed by using a horizontally polarized antenna.

We have already spoken about HF noise from geomagnetic sources when this column covered the A and K indices. Atmospheric or natural noise (QRN) comes largely from electrical storms, which thankfully are not as common in Southern California as in much of the rest of our country. QRN tends to be troublesome during times (like this) when solar activity is low and we use lower frequencies, particularly at night when we tend to use those bands. A small amount natural noise also comes from outer space. This galactic (or cosmic) noise is coming largely from our own galaxy.

One last thing is the concept of the Signal to Noise ratio (S/N or SNR). This equation expresses the fact that as the strength of the signal goes up and the noise goes down you can understand the intelligence on the transmission better (and of course visa versa). That is sometimes called “readability”. Creating a favorable S/N is critical, so lowering the received noise is just as important as raising the signal strength and often underappreciated. A rough measurer is to look at your SSB HF radio’s S-meter when it is receiving a strong radio signal (maybe S 9) and when it is not (lets say S 4.5). That ratio (2/1) gives you an idea of the relative contributions of the received signal and the noise on that band, with that path, at that time, using your location and equipment.

Now we need to turn to some other details about what radio waves really are. That is, their characteristics, such as polarization (already mentioned above) and the effects of the angle at which they are sent skyward. That will come next month.



Sub-audible Tomes

Bruce Nolte, N1BN

A Year in Reflection

Wow! - can you believe it, 2008 is almost over? It has been an interesting year with changes to club activities and growth of new facilities. Here is a thumbnail of the new ones I can remember. And a request to all of you to keep the club going for another year.

Number One: Field Day 2008, at a new location. This year we received approval from the Art Center College of Design to use their south parking lot as our Field Day location. Peter Fogg did great service to the club in establishing a relationship with the Art Center that lead to approval of this excellent location last June. Located high on the hill above the Rose Bowl this site had easy access and a big paved surface that made setup and take down easy. And being several hundred feet above the valley gave us a super radio location that led to making hundreds of contacts. I am thankful to the Art Center and to all members who made this year's Field Day possible.

Number Two: storage. For the first time in the club's history we finally have professional grade storage for many club owned items. We have developed a relationship with A-American Storage on Fair Oaks, in Pasadena. See their ad in each issue of this bulletin. A-American has kindly donated storage locker to our club to store tower parts, beam antenna and many other items used at our monthly activities. This has allowed us to keep it all stored together instead of spread out over member's homes. Many thanks to A-American Storage for making this possible - a relationship that I hope can continue into the future.



Number Three: the club Bulletin. John Minger, AC6VV is doing a super job with the Bulletin as the new editor. I like the design - and the content carries on in the excellent tradition of the past editors. Many thanks John for the great service to the club.

2009: Let's keep the ball rolling! For 2008, several members stepped forward to fill officer and board positions, many thanks to all of you who did that! Your time given to the club made this year a success.

We thank all members for giving the board ideas and muscle when needed to complete projects. But even before that can happen we need to find new officers for the club's board. I would like to appeal to all of our members again, please step forward and help us keep the club growing into 2009 - **We need you as an officer.** Thanks for listening. Please contact Peter Fogg or me if you want more information on this important mission.

Bruce, [n1bn at charter dot net](mailto:n1bn@charterdotnet.com)



Toys for Tots Ham Radio Rally

At the November 25 club meeting we will be collecting toys for the Marine Corps annual Toys For Tots program. Please participate by bringing a toy of at least \$5 value - new and unwrapped. Should be fun. Contact Bruce if you have any questions:
Bruce, [n1bn at charter dot net](mailto:n1bn@charterdotnet.com)



Kaiser Permanente Amateur Radio Network (KPARN) volunteers from PRC: AC6VV, KF6RRR, W6PNW, W6ZT, WA6DZS, WA6GLJ, and KF6FEM.

W6KA

(Fun in the sun in sunny Southern California)

Ray Overman
KJ6NO

2008 California QSO Party

Once again W6KA took first place in the California QSO Party. Wine, plaques, and honor were bestowed upon our motley crew. Headlines proclaimed W6KA had the all time high score for the contest. Just then, the alarm went off and I awoke from my dream sleep only to realize that if only... You can guess the rest.



The First weekend of October came and once again, a county expedition was made to Riverside County to help activate it in the contest. Four of us traveled to my secret contest QTH where antennas must be erected in the dark of night for fear the antenna police would raid us. This time we used our trusty Hustler 5BTV vertical that covered 10 through 80 meters. The rig was an FT 847 into an auto tuner, putting out 100 watts. The N3FJP logging program was running on a laptop that was connected to the Internet to receive real time DX Spots. The four operators were Roz AE6WT, Eli W6ELI, a friend of mine who is a new ham, Steve KE7ODR, and I KJ6NO.

I was on the air before the rest came to the shack and made about a dozen Q's before Eli, Roz, and Steve arrived. We had our traditional barbeque Saturday night and a hearty breakfast Sunday morning with plenty to snack on in between times. After the dust cleared, we had reached a new high for the contest of

125 contacts and with that, we are eligible for some of the swag. Next year should bring better propagation, more Q's, and a try to double our score from this year.

We would like to thank Paul, N6LL, for the use of the club's call, W6KA, that we used in the contest. We also extend an invitation for you to come out on a contest weekend and join in the fun.

73, Ray KJ6NO

The Great Southern California Shakeout

At 10 a.m. on November 13, 2008, millions of people in homes, schools, businesses, government offices, and public places all over southern California will *Drop, Cover, and Hold On*.

Why? An enormous earthquake is in our future, and the ShakeOut Drill is our chance to practice what to do when it happens. Don't miss out! Register today to be counted in the drill, get email updates, and much more.

Why is it important to do a Drop, Cover, Hold On drill? Just as with anything, to act quickly you must practice, practice, practice. In a big earthquake, there may be very little time to protect yourself before strong shaking knocks you down or drops something on you. Most earthquakes have a sharp jolt a few seconds before the strong shaking, and we need to Drop, Cover, Hold On immediately when we feel the jolt. By practicing we will act quickly, rather than waiting to see if the earthquake will be large. If it is, it may be too late to protect yourself. *ShakeOut. Don't FreakOut.*

Go to the Shakeout web page at www.shakeout.org to learn how you can participate.

Pasadena Radio Club

Meeting Minutes

Board Meeting, September 9th

taken by Cynthia Berne, N6NCE

The meeting started at 7:30 PM with the following board members in attendance:

President: Peter Fogg
Vice President: Bruce Nolte
Secretary :Cynthia Berne
Treasurer: Harry Brumer
Member at Large: Randy Graham

Also in attendance were:

Bulletin Editor John Minger
Past President: Ray Overman
W6KA Trustee: Paul Gordon

REPORTS

SECRETARY: The August 12 Board meeting and the August 26 General Meeting minutes were approved as corrected

V.P.: the September meeting speaker will be John Haslett KI6MCB: The Voyages of the Manteño .

The October meeting will be a video on Field Day.

The Nov. meeting will be Clint Bradford K6LCS on D-Star and AMSAT.

TREASURER:

Harry Brumer reported the PRC assets as of September 7, 2008: \$ 5110.94

The report was accepted.

A motion was made by Ray Overman to roll over the two Club CD's and leave \$2000 in each one. Any remaining monies will be put into the checking account. Motion carried.

BULLETIN: John said that the December bulletin will be in PDF version only.

NEW BUSINESS:

The purchase of a new generator is on hold.

Peter has been in touch with Bill Westphal about the Telco repeater. He suggested that the PRC will help with maintaining the repeater. It may cost less than \$200 to repair the old power amplifier. Peter will

present this idea to the Board at the next meeting and to the General membership after that.

Peter has been in touch with the Pasadena Marathon committee (date Nov 16) and they have hired the company International City Racing to run the event. Peter spoke with President John Parks. He recommended that Peter speak with a Bart Davis. He will do this and report at the next meeting.

Peter asked everyone to think about the type of PRC dinner to be held near the end of the year: It was decided to ask the membership if they would agree to a potluck to be held in November. There would be a short general meeting –speaker and then the party. Randy suggested a White elephant gift exchange. Bruce suggested also bringing Toys for Tots to the meeting.

There being no further business, the meeting was adjourned at 8:30PM.

General Meeting, September 23rd

taken by Bruce Nolte, N1BN

The meeting started at 7:05 PM. Peter Fogg announced that the business meeting after the break would have important content and suggested that members stay for it.

Bruce Nolte introduced John Haslett, KI6MCB, who presented a talk about how Ham Radio assisted with the Voyages of the Manteño, a 15-ton raft that his team built in South America and sailed in the Pacific ocean.

During the break, members enjoyed refreshments and some give-away items.

Business meeting:

VP report: for the October meeting we will have a Field Day video, should be a great evening of viewing. In November Clint Bradford K6LCS will present AMSAT and a D-Star discussion.

Treasurer report: "We are solvent". Peter Fogg discussed the need for 2009 officer nominees and the year-end dinner. No solution was found for either.

Bruce Nolte mentioned that all club members should have badges, the free one or an engraved one for about \$7. Email Bruce at [n1bn at ar1l dot net](mailto:n1bn@ar1l.net) if you need one of the free badges. Bruce mentioned that we might have a Toys for Tots collection at the November meeting.

The meeting ended at 8:50 PM

Made
on a Mac



But What if I Don't Speak Zulu?!

Phil Barnes-Roberts, WA6DZS

I really enjoyed Tom W6TAG's article on the propagation resources in the September '08 PRC Bulletin, but I had a moment there at (WWV) ...'broadcast gives time announcements (in Zulu)...' since many of our new hams haven't gained an appreciation yet, even if they occasionally operate on Echolink or IRLP, talking to other parts of the world, that "two o'clock" means something quite different from "14:00Z" (or "2PM local"). *Whose* local time? And *where*? AM or PM?



If you have a regular HF sked (scheduled contact) with someone in another time zone, or far around the curve of the Earth, you're more likely to be familiar with this. Supertime here in SoCal is past midnight in Europe, and breakfast in Australia (for those that keep such daytime hours!)

There are handy little charts and a few Websites that give the time differences in the 25 time zones, each 15 degrees of longitude on our lovely blue planet, starting from the Prime Meridian in Greenwich England (0o), plus-12 and minus-12, at the International Dateline - which is the same point, viewed from different directions.

We regularly used one such little chart in Navy-Marine Corps MARS phone patching from DaNang and Chu Lai RVN, since the evening band opening there (Hotel time, GMT+8) was morning in California (Uniform time, GMT-8), or lunchtime in New Jersey (Romeo time, GMT-5). The first Website (of thousands) that pops up from Googling [zulu time zones] is <http://www.greenwichmeantime.com/info/timezone.htm>.

From Zulu time, also known as Greenwich Mean Time or GMT, or as WWV and NIST now call it UTC (Universal Time, Coordinated), the zones march East every 15 degrees across Europe and the steppes of Asia; Alpha in Paris, Bravo in Athens, Charlie in

Moscow, etc. with occasional half-hour stops in several localities, until we get to Mike time, GMT+12 in New Zealand and Fiji, the Easterly view of the International Dateline. There's a slight cheat of GMT +13 and +14 around Kiribati's islands, which steadfastly refuse to move just to keep within the scheme.

Then the naming takes a break, and we pick up November time, GMT-1 West of England, in the Azores, and work our way across the Atlantic and the Americas, until we come back around to Yankee time, GMT-12 at the International Dateline, just West of XRay time, GMT-11 in Nome AK.

So if you're going to make a sked with someone far far away, be sure you're both talking about the same *kind of time* or you'll miss it, and Zulu is the Gold Standard for international communications!

President Peter Fogg	KA6RJF Peter.Fogg at sbcbglobal dot net (626) 797-9125
Vice-President Bruce Nolte	N1BN n1bn at charter dot net (323) 257-5502
Secretary Cynthia Berne	N6NCE cberne at juno dot com (323) 665-6289
Treasurer Harry Brumer	K7IB k7ib at arri dot net (626) 355-4501
Members At Large Tom Berne Pamela Royce Randy Graham	W6TAG W6PNW KG6OTE
Past Officers Ray Overman Jacob Portukalian Bruce Nolte Peter Fogg	KJ6NO KD5FEG N1BN KA6RJF
Education Chair Mark Seigel	W6MES (818) 951-6369
Club Net Mike Dinko	KF6FEM (626) 797-8082
Bulletin Editor John Minger	AC6VV (323) 256-0046 ac6vv at arri dot net

Pasadena Radio Club meets the fourth Tuesday of each month at 7:00 p.m. in the Kaiser Permanente Walnut Center, located at 393 East Walnut Street, at the corner of Los Robles Avenue in Pasadena. Enter the parking structure at the Los Robles Avenue entrance and mention "Pasadena Radio Club" over the security intercom. Everyone is welcome to attend. Please sign in at the front desk and they will direct you to the meeting room.

Membership in the Pasadena Radio Club is open to anyone interested in Amateur Radio. Dues are \$30 per year, \$15 for students. Request a membership application at the club's mailing address, on the club website, www.qsl.net/w6ka, or in person at the monthly meeting.

The Pasadena Radio Club, W6KA, conducts a weekly net every Tuesday night, except on meeting nights, at 7:00 p.m. The frequency is 145.180 MHz (-) PL 156.7. All licensed amateurs are invited to participate.

The club has a packet station on 145.630 and on 223.600 (cross-band capable) with a PBBS of W6KA-10 and a node name of MIRDOR.

There is an unofficial Yahoo Group for club members at <http://groups.yahoo.com/group/PRC-Club/>. All members are invited to join as this allows for quick dissemination of information to members via e-mail.

Bulletin Submissions: please submit any articles or ideas for future articles via e-mail to AC6VV at arri dot net, please include "PRC" in the subject. Any other modes of submission may be arranged in advance on an individual basis. Submissions are due by the Friday after the board meeting.

Permission is granted to use articles in this issue as long as "Pasadena Radio Club Bulletin" is credited.

Please submit any address or e-mail changes to the Treasurer.

Online PRC Bulletin

www.qsl.net/w6ka/

This mailed-out PRC Bulletin is eight pages long. To download the (sometimes) larger online version, follow the link for "Bulletins" on the club's web page and see it in color. Click on any hyperlink in the Bulletin and jump immediately to the associated web page or file. Enjoy!

Refreshments at the next meeting will be provided by Yolanda Minger, KF6LMR.

We can take your files on disk or via e-mail



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This Month at the General Meeting:
Tuesday, October 28th, 2008 @ 7:00 pm

Field Day 2008 - The Movie!

Bruce Nolte, N1BN

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SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Oct 26	Oct 27	Oct 28	Oct 29	Oct 30	Oct 31	Nov 1
		PRC Club Meeting 7:00 pm			Halloween	All Saints' Day ARRL Nov Sweepstakes/CW
Nov 2	Nov 3	Nov 4	Nov 5	Nov 6	Nov 7	Nov 8
		PRC Net 7:00 pm 145.180 - PL 156.7				
Nov 9	Nov 10	Nov 11	Nov 12	Nov 13	Nov 14	Nov 15
		PRC Net 7:00 pm PRC Board 7:30 pm		Great Southern Calif. Shakeout		Chino Hills HS Swap ARRL Nov Sweepstakes/phone
Nov 16	Nov 17	Nov 18	Nov 19	Nov 20	Nov 21	Nov 22
		PRC Net 7:00 pm 145.180 - PL 156.7				
Nov 23	Nov 24	Nov 25	Nov 26	Nov 27	Nov 28	Nov 29
		PRC Club Meeting 7:00 pm	Kaiser Net 147.270 Mhz 12:15 pm 52.700 Mhz 12:30 pm 7.228 Mhz 12:45 pm	Thanksgiving		TRW Swap Meet CQWW DX/CW
Nov 30	Dec 1	Dec 2	Dec 3	Dec 4	Dec 5	Dec 6
		PRC Net 7:00 pm 145.180 - PL 156.7				