

K6YQT

PAARA NEWSLETTER  
VOLUME 49 NUMBER 2 February 2000

W6OTX



# PAARAGraphs

Celebrating 63 years as an *active* ham radio club—*Since 1937*  
Newsletter for the Palo Alto Amateur Radio Association, Inc.



## CALENDAR

- Feb 4, PAARA Meeting, 7:30,  
Menlo Park Recreation Center  
700 Alma Street, Menlo Park
- Feb 9, PAARA Board Meeting, 7:30  
Red Cross Bld., 400 Mitchell Ln., Palo Alto
- Mar 3, PAARA Meeting, 7:30
- Mar 8, PAARA Board Meeting, 7:30
- 2 m CODE PRACTICE, 2000 to 2030 PST Tues  
W6APZ 145.23 repeater

## PROGRAM



February 4, 2000  
7:30 P.M.

### Speaker:

Larry Pizzella, WR6K  
“CRYSTAL SETS”

part 2



Join us for pre-meeting eyeball

6 pm—at Su Hong Restaurant, 1039 El Camino Real, Menlo Park  
\*\*\*\*\*

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

### THIS MONTH:

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\*\*\*\*\*  
Honorary Member 2000  
®  
Larry Pizzella, WR6K  
\*\*\*\*\*



Daily Palo Alto Times  
February 15, 1937

(Page 2)

### “Radio Association Elects -

Ted Peixotto is the president of the newly organized Palo Alto Radio Association, members announced today. Other officers are Charles Camp, vice-president; and L.M. Van Eaton, secretary-treasurer. The association is composed of local amateur radio operators.”



## Miscellaneous Dates

**Flea Market at Foothill** (info at: <http://joslin.com/FleaMarket>)  
 Watch for schedule in the Spring

**PAARA** Palo Alto Amateur Radio Association  
 meets 1st Friday 7:30 each month, Net 145.230 each Monday 8:30,  
 contact: Andreas Junge N6NU.....(650) 233 0843

**EMARC** Electronics Museum Amateur Radio Club  
 meets 4th Friday 7:30 each month,  
 contact: Sheldon Edelman 650-858-2176, [Edelman@richochet.net](mailto:Edelman@richochet.net)

**NCDXC** Northern California DX Club  
 meets 2nd Friday 7:30 each month, repeater for member info 147.360, Thur 8:00PM,  
 contact: Bob Mammarella KB6FEC 408 729 1544.

**NorCalQRP** Northern California QRP Club  
 meets 1st Sunday each month,  
 contact: Jim Cates 3241 Eastwood Rd., Sacramento, CA 95821.

**Perham Foundation**,  
 contact: Jerry Tucker WA6LNV 650-961-3266

**SPECS** Southern Peninsula Emergency Communication System  
 meets each Monday 8:00PM on Net 145.27, 440.80 MHz, [www.specsnet.org](http://www.specsnet.org)  
 contact: Tom Cascone, KF6LWZ, 650-688-0441 [specs@svpal.org](mailto:specs@svpal.org)

**SCARES** South County Amateur Radio Emergency Service  
 meets 3rd Thursday 7:30 each month, San Carlos City Hall.  
 Net is on 144.45 & 444.50 (PL-100) 7:30 Monday evenings.  
 contact:

**SCCARA** Santa Clara County Amateur Radio Association  
 Operates W6UU repeater 146.385+ Nets: 2m, W6UU, 7:30 Mon; 10m,  
 28.385, 8:00 Thur. meets 2nd Mon each month.  
 contact: Jack Ruckman AC6FU

**SVECS** Silicon Valley Emergency Communications  
 Operates WB6ADZ repeater (146.115 MHz+)  
 contact: Lou Stierer WA6QYS 408 241 7999

**WVARA West** Valley Amateur Radio Association  
 operates W6PIY repeater 147.39+, 223.96, 441.875, 1286.2  
 meets 3rd Wed every month.  
 contact: Glen Lokke Jr. KE6NBO at 408 971 8626, or [glokke@pacbell.net](mailto:glokke@pacbell.net)

### Disaster Services

**PALO ALTO CHAPTER**, American Red Cross  
 Meets 3rd Wed. each month 7:30PM,  
 HF, packet, BBS, ATV, OSCAR Gateway, NASA satellite,  
 contact: Alan Ball 650-688-0423.

**SAN JOSE CHAPTER**, American Red Cross  
 contact: Scott Hensley KB6UOO, 408 249 7093, [fsh@richochet.net](mailto:fsh@richochet.net)

**VE Exams**, 3rd Saturday each month, 11AM, 145.23- PL=100Hz  
 American Legion Hall, 651 El Camino Real, R.C.  
 contact: Al Montoya at [WB6IMX@worldnet.att.net](mailto:WB6IMX@worldnet.att.net)

## Scholarships Available for Hams:-

The Foundation for Amateur Radio, Inc., a non-profit organization with headquarters in Washington, D.C., plans to administer seventy-three (73) scholarships for the academic year 2000-2001 to assist licensed Radio Amateurs. The Foundation, composed of over seventy-five local area Amateur Radio Clubs, fully funds ten of these scholarships with the income from grants and its annual Hamfest. The remaining sixty-three (63) are administered by the Foundation without cost to the various donors.

Licensed Radio Amateurs may compete for these awards if they plan to pursue a full-time course of studies beyond high school and are enrolled in or have been accepted for enrollment at an accredited university, college or technical school. The awards range from \$500 to \$2500 with preference given in some cases to residents of specified geographical areas or the pursuit of certain study programs.

(Continued on page 17) Scholarships

## Palo Alto Amateur Radio Association, Inc.

### PO Box 911

#### Menlo Park, CA 94026

|                       |  |
|-----------------------|--|
| President             | Andreas Junge N6NU.....(650) 233 0843<br><a href="mailto:n6nu@arrl.net">n6nu@arrl.net</a>  |
| Vice President        | Jon Zweig, AD6FX .....(650) 324 8751<br><a href="mailto:jzweig@pacbell.net">jzweig@pacbell.net</a>   |
| Secretary             | ?????  |
| Treasurer             | ?????  |
| Membership            | Vic Black, AB6SO.....(650) 366 0636<br><a href="mailto:vic.black@adept.com">vic.black@adept.com</a> , <a href="mailto:ab6so@smrn.com">ab6so@smrn.com</a> |
| W6OTX Station Trustee | Fred Canham, K6YT .....(650) 948 9238  |
| K6YQT Station Trustee | Gerry Tucker, WA6LNV.....(650) 326 4908  |
| Property              | Gerry Tucker, WA6LNV.....(650) 326 4908  |
| Badges                | Don Trask, KF6JMQ.....(408) 251 6494   |
| ARES Officer          | Lily Anne Hillis, N6PGM .....(650) 325 5484  |
| Club Historian        | Steve Stuntz, K6FS .....(650) 322 4952   |
| Advertising           | Bob Korte, KD6KYT.....(650) 595 1842   |
| Webmaster             | Andreas Junge AD6FQ.....(650) 233 0843<br><a href="mailto:n6nu@arrl.net">n6nu@arrl.net</a>   |

### Board of Directors

|   |
|---|
| Charles Grandjean, WD6FAF (408) 739 5185 '00<br><a href="http://wd6fafwebtv.net">wd6fafwebtv.net</a>                |
| Doug Schliebus, K1DIT .....(650) 851 0727 '00<br><a href="mailto:schliebus@aol.com">schliebus@aol.com</a>           |
| Don Trask, KF6JMQ .....(408) 251 6494 '01<br><a href="mailto:trask@shell3.ba.best.com">trask@shell3.ba.best.com</a> |
| Joel Wilhite, KA7TXV .....(650) 325 8239 '01<br>Gerry Tucker, WA6LNV .....(650) 326 4908 '01                        |
| (see "Calendar" for Board meeting times, visitors welcome)  |

### PAARAGraphs Staff

|          |   |
|----------|---|
| Editor   | Wally Porter, K6URO .....(650) 494 7038<br><a href="mailto:k6uro@arrl.net">k6uro@arrl.net</a>                   |
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### PAARAGraphs e-mail address: [k6uro@arrl.net](mailto:k6uro@arrl.net)

Submit material for PAARAGraphs by the 15th

PAARA Website <http://www.qsl.net/paara/>

## Contest Calendar

### Vic Black, AB6SO~

(for rules and exchanges, see [www.contesting.com](http://www.contesting.com))

### February 2000

- 5,6 New Hampshire QSO Party 0000Z, Feb 5 - 2400Z, Feb 6
- 5,6 Vermont QSO Party 0000Z, Feb 5 - 2400Z, Feb 6
- 5,6 10-10 Inter. Winter Contest, SSB 0001Z, Feb 5 - 2400Z, Feb 6
- 5 Minnesota QSO Party 1400Z - 2400Z, Feb 5
- 5-7 YL-OM Contest, CW 1400Z, Feb 5 - 0200Z, Feb 7
- 5-7 Delaware QSO Party 1700Z, 02/5 - 0500Z, 02/6 and 1300Z, 02/6 - 0100Z, 02/7
- 5,6 Mexico RTTY International Contest 1800Z, Feb 5 - 2400Z, Feb 6
- 6 North American Sprint, Phone 0000Z - 0400Z, Feb 6
- 12,13 CQ/RJ WW RTTY WPX Contest 0000Z, Feb 12 - 2400Z, Feb 13
- 12,13 FISTS Novice Roundup 0000Z, Feb 12 - 2400Z, Feb 13
- 12 Asia-Pacific Sprint, CW 1100Z - 1300Z, Feb 12
- 12,13 Dutch PACC Contest 1200Z, Feb 12 - 1200Z, Feb 13
- 12-14 YL-OM Contest, SSB 1400Z, Feb 12 - 0200Z, Feb 14
- 12,13 RSGB 1.8 MHz Contest, CW 2100Z, Feb 12 - 0100Z, Feb 13
- 13 North American Sprint, CW 0000Z - 0400Z, Feb 13
- 13 QRP ARCI Winter Fireside SSB Sprint 2000Z - 2400Z, Feb 13
- 14-19 ARRL School Roundup 1300Z, Feb 14 - 0100Z, Feb 19
- 19-20 ARRL Inter. DX Contest, CW 0000Z, Feb 19 - 2400Z, Feb 20
- 25-27 CQ 160-Meter Contest, SSB 2200Z, Feb 25 - 1600Z, Feb 27
- 26,27 REF Contest, SSB 0600Z, Feb 26 - 1800Z, Feb 27
- 26,27 N. Carolina QSO Party 1200Z-2359Z, 2/26 & 1200Z-2359Z, 2/27
- 26,27 UBA Contest, CW 1300Z, Feb 26 - 1300Z, Feb 27
- 26,27 RSGB 7 MHz DX Contest, CW 1500Z, Feb 26 - 0900Z, 2/27
- 27 High Speed Club CW Contest 0900Z - 1100Z, 02/27 & 1500Z - 1700Z, 02/27



## Technical Tip

### Fusing Grounds: Why Bother?

By Ed Hare W1RFI

In mobile installations, some manufacturers stipulate that the negative lead of the radio should be connected to the engine block or chassis; others say to connect the negative lead directly to the battery.

If the negative lead is connected to the engine block or chassis it should NOT be fused. If the fuse fails, the shield of the coax feeding the antenna could act as the return path, if the chassis of the radio is not grounded. This will increase the likelihood of noise and, for high-powered rigs, could exceed the safe current-handling capability of the coaxial cable.

If the negative lead is connected directly to the battery, both the positive and negative leads should be fused as close to the battery as possible. The negative lead must be fused to protect the wiring against the possibility of high starter currents. If the connection between the battery and engine block were to fail, and corrosion inside engine compartments does take its toll, when the starter is engaged as much as 200A could attempt to flow through the negative lead, the radio chassis and/or the coaxial cable. This would be an unsafe condition that could even start the wire insulation on fire. With a fuse, the fuse will blow, the starter won't turn and there is no risk of engine-or passenger-compartment fire from the overloaded negative lead. There is still a possibility that if the fuse opens, the return path for the radio will be the coaxial cable shield, etc., but that is the lesser of two evils compared to 200A through a small wire.

The most important factor is that if an auto manufacturer has installation guidelines (Chrysler, GM and Ford all do; they are reprinted in the ARRL RFI Book), they should be followed exactly if you want the manufacturer to support the installation.

73, Ed Hare W1RFI, ARRL Lab  
(Courtesy Vic, AB6SO)



## VE Ron Panton, W6VG

January 15, VE session at the American Legion Hall in Redwood City: Wow! a jam packed

bunch of eager beavers, almost all making almost perfect papers. We were too busy for Dan Curry K6DLC to take the Extra Class CW test, he

would still like to pass the CW the hard way. Dan

has already passed the written. We saw PAARA member Kit Kohlmoos in the melee. As I recall, all who took the written extra class passed. We busy VE people included Al Montoya WB6IMX, Gordon Girton W6NW, Stan Towle WA6ZGI, Dan Curry K6DLC, Ron Panton W6VG. April 15 is the magic day when the extra CW drops to 5 WPM.  
u u u

® Ron, W6VG



## Amateur Restructuring is Here:

### Three License Classes, One Code Speed

NEWINGTON, CT, Dec 30, 1999—Amateur Radio will get a new look in the new millennium. The FCC today issued its long-awaited Report and Order in the 1998 Biennial Regulatory Review of Part 97—more commonly known as “license restructuring.” The bottom line is that starting April 15, 2000, there will be three license classes—Technician, General, and Amateur Extra—and a single Morse code requirement—5 WPM.

“We believe that an individual’s ability to demonstrate increased Morse code proficiency is not necessarily indicative of that individual’s ability to contribute to the advancement of the radio art,” the FCC said.

Besides drastically streamlining the Amateur Radio licensing process, the FCC said its actions would “eliminate unnecessary requirements that may discourage or limit individuals from becoming trained operators, technicians, and electronic experts.”

Although no new Novice and Advanced licenses will be issued after the effective date of the Report and Order, the FCC does not plan to automatically upgrade any existing license privileges. The ARRL had proposed a one-time across-the-board upgrading of current Novice and Tech Plus licensees to General class, but the FCC declined to adopt the idea. This means that current licensees will retain their current operating privileges, including access to various modes and subbands, and will be able to renew their licenses indefinitely.

Starting April 15, 2000, individuals who qualified for the Technician class license prior to March 21, 1987, will be able to upgrade to General class by providing documentary proof to a Volunteer Examiner Coordinator, paying an application fee, and completing FCC Form 605.

The FCC’s decision not to automatically upgrade Novice and Tech Plus licensees means the current Novice/Tech Plus HF subbands will remain and not be “refarmed” to higher class licensees as the ARRL had proposed. The FCC said it did not rearm these subbands because there was “no consensus” within the amateur community as to what to do with them.

As it had proposed earlier, the FCC decided to lump Technician and Tech Plus licensees into a single licensee database, all designated as “Technician” licensees. Those who can document having passed the 5 WPM Morse code examination will continue to have the current Tech Plus HF privileges. “If documentation is needed to verify whether a licensee has passed a telegraphy examination, we may request the documentation from that licensee or the VECs,” the FCC said.

In addition to reducing the number of license classes from six to three and eliminating the 20 and 13 WPM code tests, the FCC also will reduce the number of written examination elements from five to three, authorize Advanced Class hams to prepare and administer General class examinations, and eliminate Radio Amateur Civil Emergency Service (RACES) station licenses. RACES will remain, however. “After review of the record, we conclude that we should eliminate RACES station licenses because RACES station licenses are unnecessary for amateur stations and amateur service licenses to provide emer-

(Continued on page 14) License

(Continued from page 13) License  
 gency communications," the FCC said.

Under the new licensing scheme, there will be four examination elements. Element 1 will be the 5 WPM Morse code exam. Element 2 will be a 35-question written test to obtain a Technician license; Element 3 will be a 35-question written test to obtain a General license, and Element 4 will be a 50-question written test for the Amateur Extra license. The FCC has left it in the hands of the National Conference of VECs Question Pool Committee to determine the specific mix and makeup of written examination questions. Current Amateur Radio study materials remain valid at least until the new rules become effective in April.

The FCC's new licensing plan means someone will be able to become a ham by passing a single 35-question written examination. The plan also simplifies and shortens the upgrade path from the ground floor through Amateur Extra—especially since amateurs will only have to pass one Morse code test.

Elimination of the 13 and 20 WPM Morse requirements also means an end to physician certification waivers for applicants claiming an inability to pass the Morse code examination due to physical handicap.

The effective date provides a window of upgrade opportunity for current Advanced licensees. Between now and April 15, current Advanced holders may take the existing Element 4B, a 40-question test, giving them credit for having passed the current Extra written examination. Likewise, holders of a Certificate of Successful Completion of Examination (CSCE) for Elements 3B or 4B dated on or after April 17, 1999, will be able to qualify for General or Amateur Extra respectively when the new rules go into effect on April 15, 2000.

The FCC disagreed with the League's suggestion that it undertake a restructuring of operating privileges along with licensing restructuring. "We believe that in light of ongoing discussions concerning implementation of new and more modern communications technologies within the amateur service community, we should accord the amateur service community an opportunity to complete such discussions and possibly reach a consensus regarding implementation of new technologies before we undertake a comprehensive restructuring of the amateur service operating privileges and frequencies," the FCC said in its Report and Order.

In its amendments to Part 97, the FCC's Report and Order refers to a "Club Station Call Sign Administrator," something that does not exist under the current rules and which was not explained in the R&O itself. An FCC spokesperson said the Commission plans to issue a Public Notice soon to explain the program and to solicit qualified entities to serve as call sign administrators for club station applications.

A copy of the entire Report and Order (FCC 99-412) is available at

<http://www.arrl.org/announce/regulatory/wt98-143ro.pdf>

or at

[http://www.fcc.gov/Daily\\_Releases/Daily\\_Business/1999/db991230/fcc99412.txt](http://www.fcc.gov/Daily_Releases/Daily_Business/1999/db991230/fcc99412.txt)

Rick Lindquist, N1RL  
 Senior News Editor, ARRL HQ



## PAARA PONDERINGS

de VIC BLACK, AB6SO

PAARA member John Larribeau

**KR6MR** was featured in an article on page 80 of January QST. John described his experiences working an unplanned DXpedition while on a business trip to Resolute Bay, Nunavut, Canada (callsign prefix VY0). John promises to be better prepared for the pileups next time. Perhaps he can carry a radio on his next trip to Ascension Island (ZD8) in the mid Atlantic between Brazil and western Africa.

The same QST issue had a historical article about the first 100 years of ham radio written by PAARA Honorary Member **Jim Maxwell W6CF**, Pacific Division ARRL Director. You may recognize some of the article from Jim's talk to PAARA where he perfected the presentation.

It's often said that the first 100 countries are the easiest to work. This is becoming true more than ever as antennas are computer optimized, receivers have lower noise figures and more travelers are activating rare and semi-rare DXCC entities while carrying small radios on vacations to exotic islands and countries. Many operators routinely work 100 countries during a single contest weekend using nothing more than a dipole and 100 watts.

Look for a real frenzy of activity during the year 2000 as we approach the solar cycle maximum. The Radio Society of Great Britain (RSGB) Islands of the Air (IOTA) Program is sponsoring two new awards for the year 2000. They should add to our operating enjoyment and excitement.

The Platinum Certificate will be awarded to individuals or teams for activating either two new IOTAs or one new IOTA and 2 rare IOTA islands. A Gold Certificate is available for anyone activating one new IOTA or two rare IOTAs or a total of five IOTAs, excluding one's home station. Most of us will never have a chance to activate a "new one", but enough hams travel with radios for business and pleasure to ensure plenty of DX challenges for the rest of us during the year.

**SIMPLE PASSIVE VHF REPEATER:** Some PAARA members are having difficulty working local repeaters because they live in valleys surrounded by hills that block signals to the repeaters. Sometimes a beam antenna or a high base station antenna will work, but it's difficult to work with a hand held rig and rubber duckie antenna while walking around inside the house. Professor Arnie Coro CO2KK, who hosts an amateur radio program on Radio Havana, sent an e-mail discussing this very topic. Because of trade embargoes, Cuban hams have become adept at "making do" with salvaged parts and crude working conditions. Some of their solutions to problems are quite elegant.

Arnie found that he can get into his favorite repeaters using a gain antenna mounted high on the house, but then he's tied to the coax and can't walk around. He can't make it to the repeaters using only his handie-talkie and rubber duck antenna. He solved the problem by attaching his outside gain antenna directly to a 2-meter dipole located inside the house.

(Continued on page 17) Ponderings

**PAARAGraphs February 2000**  
**Celebrating 63 years as an active ham radio club—Since 1937**

15

BY-LAWS FOR THE REGULATION,  
EXCEPT AS OTHERWISE PROVIDED BY STATUTE  
OR ITS ARTICLES OF INCORPORATION  
OF PALO ALTO AMATEUR RADIO ASSOCIATION, INC.

**ARTICLE I MEMBERS**

- (a) The members of this corporation shall be divided into two classifications, namely active members and associate members. An active member shall be any person holding a valid amateur radio operator's license. All other members shall be associate members. All members shall have full voting privileges, but only active members may hold office.  
(b) Any prospective member may apply for membership at his/her first attended meeting. Applications for membership may be voted upon at their second attended meeting. A three fourths' majority of the members present shall be required to elect an applicant to membership.  
(c) Upon being elected to membership, the applicant shall pay dues at a rate set by the Board of Directors.  
(d) Upon election and payment of dues, the applicants name shall be inscribed in the membership book. All dues shall become payable on January 1 for the ensuing year, and members elected to membership during the course of a year shall make a pro rata payment for the balance of the year.  
(e) Any member who fails to pay dues for a period of three months shall, at the discretion of the Board of Directors, be dropped from the membership book of the corporation.

**ARTICLE II CORPORATE POWERS**

The corporate powers of this corporation shall be vested in a Board of Directors, all of whom shall be members of this corporation in good standing. Three members of the Board of Directors shall constitute a quorum for the transaction of business.

**ARTICLE III BOARD OF DIRECTORS**

The Board of Directors shall consist of the president and four directors.

**ARTICLE IV POWERS OF DIRECTORS**

Regular meetings of the Board of Directors shall be held at the call of the President or, in his/her absence, the Vice-President, on such notice as is determined by the Board of Directors. Special meetings of the Board of Directors may be called by the President or Vice-President on twenty-four hours' notice to each director, either personally, by mail or by telephone. The Directors shall have the power:

- (a) to set the dues rate;
- (b) the Directors shall consider and report at each meeting all proposals for the benefit of the individual members or the general welfare of the corporation;
- (c) the Board of Directors shall adopt ways and means for the advancement of the corporation, designate work to be done between meetings of the corporation, audit all accounts for expenses, and direct the expenditure of funds of the corporation but not in excess of the amount held by the Treasurer.
- (d) to have general charge of all interests of the organization.

**ARTICLE V DUTIES OF THE DIRECTORS**

It shall be the duty of the Directors to keep complete records of all their meetings and acts, and make reports to the general membership.

**ARTICLE VI DUTIES OF PRESIDENT**

It shall be the duty of the President to preside at all meetings of the corporation and to preside at all meetings of the Board of Directors. The President shall prepare a budget at the beginning of his/her term and a financial report at the end of the term.

The President shall request, on a regular basis, from the Treasurer, a list of income and expenses. It shall be the further duty of the President to appoint replacements of officers and directors not able to serve their term. Appointees shall serve until the next regularly scheduled election. Make all committee appointments.

**ARTICLE VII DUTIES OF VICE-PRESIDENT**

It shall be the duty of the Vice-President to assist the President and to perform all the duties of the President during his/her absence.

**ARTICLE VIII DUTIES OF SECRETARY**

It shall be the duty of the Secretary to receive all communications that may be addressed to the club or that may be submitted by the other officers of the club and to keep a full report of the proceedings of each meeting. The Secretary shall read all communications upon request of the President.

The Secretary shall maintain a book listing all members of the organization and shall perform such other duties as may be required by the club.

The Secretary shall also promptly deliver up all books, paper, or other property of the corporation to his/her successor in office, or whomsoever the club may appoint.

**ARTICLE IX DUTIES OF TREASURER**

It shall be the duty of the Treasurer to receive all dues and moneys belonging to the club and pay all orders drawn by the Board of Directors and approved by the President.

**ARTICLE X ELECTION OF OFFICERS AND TERM OF OFFICE**

The President, Vice-President, Secretary and Treasurer shall be elected for a period of one year and two directors shall be elected for a period of two years at the annual meeting in November and to serve the next calendar year.

In September of each year the president shall appoint three persons to serve as a nominating committee. The committee will select and interview a slate of nominees for officers and directors seats.

The slate of nominees will be introduced at the October general meeting. Additional nominations will be accepted from the floor at this time, after which nominations will be closed. No person may be nominated without the nominees willing acceptance. The election will be held at the December regular meeting. The Secretary will report the election results as the last order of business. The nominating committee is disbanded at this time.

**ARTICLE XI OFFICIAL STATION TRUSTEE**

The Trustee of the club station license, call sign W6OTX, shall be a member in good standing. The Trustee shall be selected by the Board of Directors and serve an indefinite term. The Trustee shall have a valid operators license either Extra or Advanced Class and be responsible for the timely renewal and maintenance of the station license.

**ARTICLE XII BYLAW AMENDMENT**

The Bylaws of the corporation may be amended by a three-fourths vote of the membership in attendance after due notice as provided herein. Proposals for amendment shall be submitted in writing at a regular meeting of the corporation. Motion to amend the Bylaws of the corporation made at any regular meeting shall be mailed to each member at least fifteen days prior to the next regular meeting, at which time a vote will be taken. Votes of absentee members may be exercised by written proxy.

**ARTICLE XIII ORDER**

In any question coming before a meeting for which no provision has been made in the articles of incorporation and by-laws, the officer presiding over the meeting shall be governed by "Robert's Rules of Order."

**PAARA BY-LAW AMENDMENT**

**Amendment 1**

Article II, Second sentence, shall read:

**Five members of the Board of Directors shall constitute a quorum for the transaction of business.**

Article III, shall read:

**The Board of Directors shall consist of the officers, four directors and the immediate past president.**

Approved at the regular meeting January 8, 1999

*(changes underlined)*

**PAARAGraphs February 2000**  
**Celebrating 63 years as an active ham radio club—Since 1937**

**PALO ALTO AMATEUR RADIO ASSOCIATION**  
**(PAARA)**

**ARTICLES OF INCORPORATION**

**STATE OF CALIFORNIA**  
**DEPARTMENT OF STATE**

To all to whom these presents shall come, Greetings:

I, FRANK M. JORDAN, Secretary of State of the State of California, hereby certify:

That the annexed transcript has been compared with the RECORD on file in my office, of which it purports to be a copy, and that the same is full, true and correct.

*Seal*

In testimony whereof, I, FRANK M. JORDAN,  
Secretary of State, have hereunto caused  
the Great Seal of the State of California  
to be affixed and my name subscribed, at  
the City of Sacramento, in the State of  
California, this 2<sup>nd</sup> day of March 1956.

S/ Frank M. Jordon

316870

**ARTICLES OF INCORPORATION**

**PALO ALTO AMATEUR RADIO ASSOCIATION, INC**

We, the undersigned, have this date voluntarily associated ourselves together for the purpose of forming a corporation under the laws of the State of California and we do hereby certify:

One: The name of this corporation is: Palo Alto Amateur Radio Association, Inc.

Two: The specific and primary purposes for which this corporation is formed are:

- (a) For scientific and educational purposes;
- (b) To foster better friendship and closer cooperation between amateur radio operators living in the vicinity of Palo Alto;
- (c) To elevate the standards of amateur equipment and operation;
- (d) To secure the benefits of social and educational contacts from the members;
- (e) To aid the Federal Communications Commission in the giving of license examinations, in enforcement of laws and regulations with respect to amateur radio operation, and to aid in the investigation and suppression of television and radio interference;
- (f) To cooperate fully with Federal, State and local officials in the maintenance of emergency communications and particularly in the establishment of civil defense communications;
- (g) To receive gifts and requests; to own, control, buy, lease, rent, sell, acquire, hold, convey, mortgage, hypothecate, and otherwise deal with or dispose of personal property, particularly, but not limited to, radio communication equipment;
- (h) Do each and everything necessary, or suitable, or proper for the accomplishment of the purposes or the attainment of any one or any of the subjects herein enumerated or conducive to or expedient for the interest or benefit of said corporation and to contract accordingly; and in addition exercise all powers, rights, and privileges necessary or incidental to the purpose for which said corporation is organized, or the activities in which it is engaged. If at any time this corporation should be dissolved or its corporate existence should cease, or its charter should be revoked, no part of its funds or property shall be distributed to or shall inure to the benefit of any member or other individual, but after payment of all indebtedness of the corporation, its remaining funds shall be distributed by the Board of Directors for the furthering of scientific and educational purposes in the field of amateur radio communications;

Three: That this corporation is organized pursuant to the General Non-Profit Corporation Law of the State of California.

Four: The county and state of California where the principal office for transaction of business of this corporation is to be located is Santa Clara County.

Five: This corporation is formed as a corporation not for profit to the members thereof.

(Six: Intentionally omitted)

Seven: Number, classification and term of officers established by bylaws.

(Continued from page 14) Ponderings

On receive, repeater signals are captured by the gain antenna and passively re-radiated from the dipole to his H-T. He said, "The radius of coverage of this 'RE-RADIATING' depends on which part of the house I am in. As I approach the inside dipole, received signal levels increase".

On transmit, his signal goes not only to the repeater directly, but also is coupled into the nearby dipole and up the coax to be re-radiated out of the beam to the repeater. His outside 2-meter antennas are a homebrew wire yagi, a wire half-square array and a current fed wire bobtail. The system consisting of the gain antenna, coax and dipole acts as a PASSIVE REPEATER to boost signal levels inside the house. Problem solved!

During the first half of February, Canadians may replace their call sign prefixes with special prefixes. VE1 through VE9 may use CG1 through CG9. VA1 through VA7 become CF1 through CF7. VO1 and VO2 become CH1 and CH2. VY0, VY1 and VY2 become CI0, CI1 and CI2. Same operators, same suffixes, just new prefixes.

Now that the FCC has defined license restructuring in the US, it will be interesting to watch the hoards of expected upgrades. So many hams are studying for upgrades that the shelves have been stripped bare of study books. Many dealers are reporting selling more study guides in one week after the announcement than during the entire previous year.

There may still be some grumbling from those who think our rules are too restrictive. In that case, think of the hams in Barbados. Regardless of how many tests they take and pass, they are still required by law to demonstrate operating skill by confirming a minimum of 300 contacts on CW before being allowed to use phone. û û û

® Vic Black, AB6SO

Join us for pre-meeting eyeball  
**QSO February 4th**  
**gab & gobble**

6 pm— at Su Hong Restaurant  
1039 El Camino Real, Menlo Park  
—across from Kepler's Book Store—

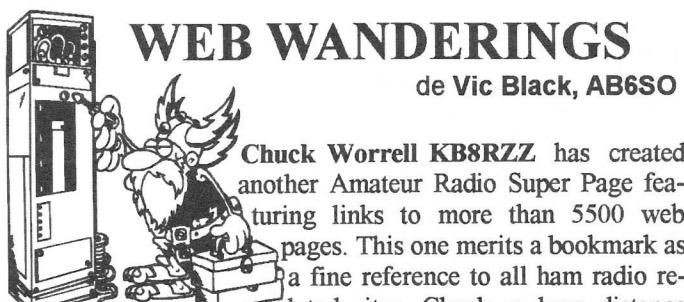
(Continued from page 12) Scholarships

Additional information and an application form may be requested by letter or QSL card, postmarked prior to April 30, 2000 from:

FAR Scholarships  
Post Office Box 831  
Riverdale, MD 20738

The Foundation for Amateur Radio, incorporated in the District of Columbia, is an exempt organization under Section 501C(3) of the Internal Revenue Code of 1954. It is devoted exclusively to promoting the interests of Amateur Radio and those scientific, literary and educational pursuits that advance the purposes of the Amateur Radio Service.

Thanks, FAR.



## WEB WANDERINGS

de Vic Black, AB6SO

Chuck Worrell KB8RZZ has created another Amateur Radio Super Page featuring links to more than 5500 web pages. This one merits a bookmark as a fine reference to all ham radio related sites. Chuck, a long distance truckdriver from Chesapeake OH, calls the site **KB8RZZ**'s Tri State Amateur Radio Page from Chesapeake OH, Huntington WVA and Ashland KY where the three states converge. Go to <http://members.aol.com/generalham/KB8RZZ.html>

Russian operator Eugene RA0FF has a new DX cluster at <http://ra0ff.snc.ru>. This one's unusual since US calls are listed as rare DX. Check it out to see who's working other US stations. Remember that Tech Pluses have access to 10 meters and a lot of the DX work is now being done with modest equipment on 10 meters. Radio Shack now sells a 10 meter transceiver for less than \$150 that will allow you to "work the world".

Amateur radio is probably the only hobby in existence with its own postal service. Once you start working DX, you should register with the ARRL incoming QSL bureau in order to receive your QSL cards. Addresses of all incoming ARRL QSL bureaus are available with instructions at <http://www.arrl.org/qsl/qslin.html>.

Lots of license upgrades are expected now that the new restructuring details have been published. Premier Communications, which makes ADI handie-talkies maintains a web site with practice tests at <http://hamtest.com/study/index.html>. These tests are good for practice or for periodic review after upgrading. They will be modified as the new question pools become available. Another site with study guides is <http://www.qrz.com>.

PAARA has had a couple of special event stations using call-sign N6M at Moffett Federal Air Field to commemorate operations of the 129<sup>th</sup> California Air National Guard. Steve Stuntz K6FS directs us to their web site at <http://calguard.ca.gov/129rqw> for a glimpse at their organization. Here you'll find some fine aerial photos of helicopters and transport planes in flight along with an explanation of their mission.

Thanks to Steve Stearns KF6OIK for the following list of web sites related to ionospheric radio physics and HF propagation.

DX'er.Com - Propagation and Solar Flux <http://www.dxer.com/prop.html>

DX Summit

<http://oh2aq.kolumbus.com/dxs/>

Earth View - Greylime Map

<http://www.fourmilab.ch/cgi-bin/uncgi/Earth/action?opt=-p>

MICROMUF MUF/LUF Shortwave Propagation Prediction

[http://home.nexus.org/NEXUSIBA/broadcast/1\\_9muf.html](http://home.nexus.org/NEXUSIBA/broadcast/1_9muf.html)

OH2BUA WebCluster

<http://www.pp.clinet.fi/~jukka/webcluster.html>

PROPLAB-PRO Version 2.0

<http://solar.uleth.ca/solar/www/skycom.html>

(Continued on page 18) Wanderings

**PAARAGraphs February 2000**  
 Celebrating 63 years as an *active* ham radio club—Since 1937

(Continued from page 17) *Wanderings*

Solar Terrestrial Dispatch Homepage

<http://solar.uleth.ca/solar/>

Solar Terrestrial Activity Report

<http://www.dxlc.com/solar/>

Space Environment Center

<http://www.sel.noaa.gov/>

Space Weather: F10.7 Indices

<http://www.nwra-az.com/spawx/f10.html>

<http://www.nwra-az.com/spawx/f1>

<http://www.sel.noaa.gov/0.html>

USDOC/ NOAA/ NESDIS/ National Geophysical Data Center (NGDC)

<http://www.ngdc.noaa.gov/>

Les Zwiebel WB6ORZ recommends

<http://www.qsl.net/sm7vhs/radio/indexen.htm> for spec sheets on most of the common rigs from ICOM, Yaesu and Kenwood. If you're planning to buy a radio, you can compare specs easily on this web site.

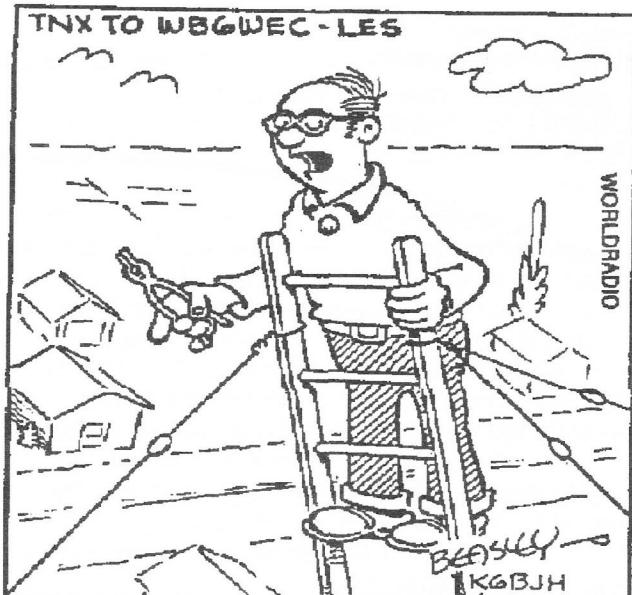
Honorary PAARA member Larry Pizzella WR6K spoke to us in January and will return in February to show his crystal radios. Take a look at some of his work at <http://www.thebest.net/wuggy/xtalpix.htm>. For instructions on hunting DX using crystal radios, visit <http://www.glynn.k12.ga.us/~opool/XTAL/dx101.htm>. The Crystal Set Society has a web page at <http://www.midnightscience.com>. Also, check <http://www.xtalsets.com>. You'll find lots of interesting ideas for developing your own crystal sets or for Science Projects.

If you missed the PAARA/FARS Inter Club Winter Party you missed an excellent presentation by Bonnie Crystal KQ6XA. Bonnie showed a slide presentation of her recent trip to Peru where she discovered the world's second deepest cave located above the 14,000-foot level of the high Andes Mountains. She displayed her specialized cave exploration equipment as well as solar powered portable VHF and HF radios. Especially interesting was her home brewed LF gear that allows her to communicate through several miles of solid rock on the 180 kHz LF band using 10 watts SSB. For information about Bonnie's exploits, visit her web site at <http://www.qsl.net/kq6xa>. There are links to her other websites describing cave science, VHF Fox Hunts, her guest appearances on the Art Bell radio program and other interests. She describes herself as a best-selling author, cave explorer, RF engineer, entrepreneur, inventor, corporate executive and co-founder of Telegen Corporation. She is active on the air on all bands from 180 kHz to 2.4 GHz using CW, SSB, PSK, FM, Data and Image transmissions.

If you're thinking of making your own QSL cards on your computer and printer, or you're constructing a web site, you may want to visit <http://www.geocities.com/SoHo/Gallery/2681/amateurradio.html>. You'll find links to several sources for downloadable amateur radio clip art.

PAARA will be designing, building and launching CanSats (small satellites in soda cans) to simulate passes of orbiting satellites. Later, we'll actually launch a satellite into orbit. For information about balloon launches, similar to the rocket CanSat launches, go to <http://www.eoss.org/pubs/faqloon.htm>. This site has the FAA rules and regulations regarding tethered and free flight balloons, including antenna supports. ù ù ù

® Vic Black, AB6SO



HEADS UP BELOW---I BELIEVE I'VE HOOKED  
THE GUY WIRES TO MY LADDER INSTEAD OF  
THE TOWER!

## Deja Vu, part 2,

Terry Conboy N6RY

Probably because I have a simple mind, I'm always amazed at the random connections that occur throughout our lives. For example, I was recently helping Santa shop for a mountain bike (for me) and stopped at the California Pedaler bike shop in Danville. I had a nice discussion with the shopkeeper and he gave me a catalog from the Gary Fisher Mountain Bikes company. I took the catalog home and studied all the bike specs and components (just like looking at the HRO catalog, eh?). Please understand that Gary Fisher is a bicycling legend. He was one of the originators of the mountain bike concept in Marin County about 25 years ago.

To establish a rapport with potential buyers, the bike catalog has a biographical section on Gary, which features pictures from his childhood, his beginnings in racing at age 12, and some of his personal memorabilia. One of the items depicted is Gary's 1975 Amateur Bicycle League of America racing license. For some reason, I was actually looking at what was printed on the license. I was totally amazed to see that the signature of the "ABLA State Representative" was none other than Victor Black! Indeed, AB6SO has a secret two-wheeled past, although he is better known PAARAnoids as President Emeritus, Membership Chairman, Ponderer, and Web Wanderer.

Who will be the next PAARA member to be discovered in some obscure non-amateur context? Stay tuned! ù ù ù

® 73 de N6RY

BTW, I bought a Gary Fisher "Sugar 1" mountain bike, so look out! At least I won't be adding QRM to the HF bands when I'm out riding (at least until I finally get my Elecraft K2 finished). ® Terry Conboy

(Know something interesting about a fellow PAARA member? Record it forever in PAARAGraphs. ® ed)



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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

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 (650) 969-1448  
 FAX: (408) 732-6428

**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. •

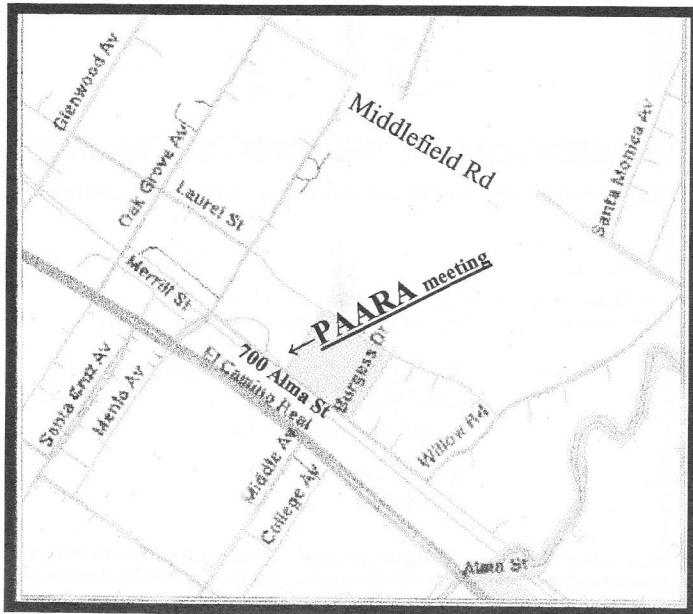
Membership in PAARA is \$12.00 per calendar year which includes a subscription to PAARAgaphs, \$6 for additional family members (no newsletter).

Make payment to the Palo Alto Amateur Radio Association.

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# PAARAGraphs February 2000

Palo Alto Amateur Radio Association, Inc.  
**PAARAGraphs** Newsletter  
 P.O. Box 911  
 Menlo Park, California 94026



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 Redwood City, CA 94062-3919

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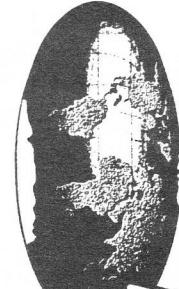
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