

#### PAARA NEWSLETTER VOLUME 49 NUMBER 3 March2000



PAARAgraphs

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





## **CALENDAR**

Mar

3, PAARA Meeting, 7:30,

Menlo Park Recreation Center

700 Alma Street, Menlo Park

Mar

8, PAARA Board Meeting, 7:30

Red Cross Bld., 400 Mitchell Ln., Palo Alto

Apr

7, PAARA Meeting, 7:30

Apr 12, PAARA Board Meeting, 7:30

2 m CODE PRACTICE, 2000 to 2030 PST Tues N6NFI 145.23 repeater

## **PROGRAM**



March 3, 2000 7:30 P.M.

Speaker:

Rick Ferranti, WA6NCX

(see next column)

Join us for pre-meeting eyeball 6 pm— at Su Hong Restaurant , 1039 El Camino Real, Menio Park

-PAARA Radio NET every Monday evening at 8:30 P.M.,local timeon the 145,230 -600 MHz repeater, PL tone off

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#### **Rick Ferranti WA6NCX**

Rick is a San Francisco native and grew up in Menlo Park, where he has been a member of the Palo Alto Amateur Radio Association for almost 30 years. He was PAARAgraphs editor from 1972-76. Rick moved to the East Coast in 1976 to pursue a graduate education, and somehow got stuck there until last year. Since returning to the Bay Area, Rick has been employed by SRI International as a research engineer for radio frequency and microwave communications and radar systems. Formerly, he was an Associate Leader of the Air Traffic Control Systems Group at MIT Lincoln Laboratory in Lexington, Massachusetts. He managed Laboratory activities for the FAA's new terminal and older en route primary radar systems, and participated in special studies on radar hardware, antennas, signal processing, and surveillance for both the FAA and the Defense Department. Rick obtained SMEE and SBEE degrees in Electrical Engineering from MIT in 1984. In addition, he holds a graduate humanities degree from Harvard University (1978), a BA from Santa Clara University (1976), and was appointed University Fellow at Boston College (1978 - 80). Rick enjoys studying the history of technology, particularly the development of mining, telegraph, radio, and radar techniques from the 19th century to the present. He lives in San Carlos with his wife and two sons, and a garage full of old electronics.

### **Miscellaneous Dates**

Flea Market at Foothill (info at: <a href="http://joslin.com/FleaMarket">http://joslin.com/FleaMarket</a>)
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

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 contact: Tom Cascone, KF6LWZ, 650-688-0441.specs@sypal.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.

SCCARA Santa ClaraCounty 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

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, <a href="mailto:fish@richochet.net">fish@richochet.net</a>

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

#### Palo Alto Amateur Radio Association, Inc. PO Box 911

Menlo Park, CA 94026

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President	Andreas Junge N6NU	(650) 233 0843	
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	jzweig@pacbell.net		
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	jmelvin@infopath.com		
Treasurer	Bob Korte, KD6KYT	(650) 595 1842	
	RGK4U@aol.com		
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vic.black@adept.com, ab6so@smrn.com			
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K6YQT Station	TrusteeGerry Tucker, WA6LN	V(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	
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Board of Directors
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wd6fafwebtv.net
Doug Schliebus, K1DIT (650) 851 0727 '00

schliebus@aol.com
Don Trask, KF6JMQ (408) 251 6494 '01
trask@shell3.ba.best.com

Joel Wilhite, KA7TXV (650) 325 8239 '01 Gerry Tucker, WA6LNV (650) 326 4908 '01 (see "Calendar" for Board meeting times, visitors welcome)

PAARAgraphs e-mail address: 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)

March, 2000

4,5 ARRL International DX Contest, Phone 0000Z, Mar 4
- 2400Z, Mar 5

11,12 World Wide Locator Contest 0000Z, Mar 11 - 2400Z, Mar 12
 11,12 Southern African HF Field Day 1000Z, Mar 11 - 1000Z, Mar 12

11,12 RSGB Commonwealth Contest, CW 1200Z, Mar 11 - 1200Z, Mar 12

11,12 QCWA QSO Party 1900Z, Mar 11 - 1900Z, Mar 12

North American Sprint, RTTY 0000Z - 0400Z, Mar 12
 UBA Spring Contest, CW 0700Z - 1100Z, Mar 12

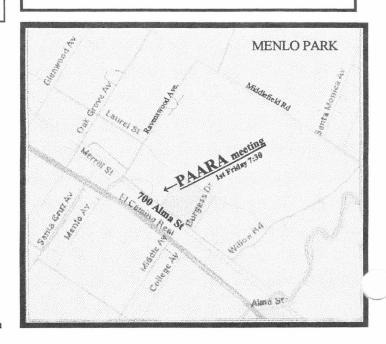
12,13 Wisconsin QSO Party 1800Z, Mar 12 - 0100Z, Mar 13
 12 High Speed Sprint, RTTY 1800Z - 2200Z, Mar 12

18,19 Bermuda Contest 0001Z, Mar 18 - 2400Z, Mar 19

18-20 BARTG WW RTTY Contest 0200Z, Mar 18 - 0200Z, Mar 20

18,19 Russian DX Contest 1200Z, Mar 18 - 1200Z, Mar 19 18-20 Virginia QSO Party 1800Z, Mar 18 - 0200Z, Mar 20

25,26 CQ WW WPX Contest, SSB 0000Z, Mar 25 - 2400Z, Mar 26



## Technical Tip

John Scott KK5VH sends along a Tech Tip for an inexpensive antenna switch. "I use F connectors on my cheap antenna

switch. The switch is an A/B/C switch for TV antennas from Radio Shack but you can pick them up almost anywhere. The high isolation version (which I am using) switches unused outputs to 75 ohm resistors. I am using crimp on connectors and utilizing a tinned center conductor from the RG58 as the center pin. It works great. SWR is lower than I can measure into a 50 ohm load. I am using it on a QRP setup but I see no reason why it would not work on QRO (within reason). I have several small QRP transceivers that I hook up all at once using the switch to switch between rigs. Need a cheap antenna switch? Here you go."ù ù ù

® 73 de John, KK5VH

# AMATEURS NEEDED FOR NATIONAL TV SPOT ON AMATEUR RADIO EMERGENCY SERVICES

The San Francisco Chapter of the ITVA (International Television Association) is seeking amateur radio operators with experience in emergency services to assist in the production of a national PSA (Public Service Announcement). The 30-second television spot will be designed to encourage more young people, 23-35, to get involved in amateur radio, with an emphasis on the disaster relief aspect of the service. The spot is scheduled for completion by May 1, 2000.

The ITVA producers would like to identify Bay Area amateurs who would be interested in working as advisors in developing concepts and copy points as well as staging disaster scenes during filming. Amateur men and women, 23-35, are also needed for concept testing and on-camera appearances.

The PSA is being produced as a public service of the San Francisco Chapter of the ITVA. For additional information, please email k6psi@arrl.net.

ITVA is a global community of professionals devoted to the business and art of visual communication. Our members work in video, film, distance learning, web design and creation, and all forms of interactive visual communications, along with all associated crafts. These professionals create programs that use visual media to convey important messages and information for corporations, small businesses, agencies, non-profit organizations, the government, education, the medical field, broadcast and cable television, and more. ITVA is a 501©(6) non-profit association. www.itvasf.com.

Contact:

#### Ken Alan (K6PSI)

Director, Media & Account Services Brandfusion 601 California Street, Suite 1501 San Francisco, CA 94108 (415) 433-8200 ext. 30

#### Good-bye W6APZ, Hello N6NFI

N6NFI will be the call sign heard on the 145.230 repeater beginning the second week in February, 2000. Rich, W6APZ, is turning over the trusteeship of the repeater to Rolf Klibo, N6NFI. Rich will continue to serve as one of the control operators for the repeater.

Rolf has been an active control operator for many years. In addition, Rolf has done design work on repeater features such as the Digital Voice Recorder that provides notices of club and ham-related events in the area, the S-Meter and other repeater functions. All trustee-related functions and questions should be directed to Rolf after February 14. This includes requests for announcements of club meetings, requests for ham volunteers to provide communications for special events, permission to use the repeater for a particular net or special event, etc. 145.23 will continue to be an open repeater available to the ham community as a resource. The main reason for requesting permission to use the machine is to avoid two groups' assuming the repeater will be available for their use when they want it. The trustee serves as a clearing house to minimize conflicting requests and maximize community use of the repeater.

All prior repeater commitments will continue to be honored, such as the dedication of the machine for the Hospital Net in times of emergency or for drills, as well as existing club nets.

Rolf can be reached via email at: <a href="klibo.rolf@ssd.loral.com">klibo.rolf@ssd.loral.com</a> or by phone at 650-852-7633 at work. His home phone is 650-856-2748. Tom Holden, KN6KL, who has also served as a control operator for many years and has done much design work on the repeater, will act as a backup to Rolf. Tom can be reached via email at: <a href="holden.tom@ssd.loral.com">holden.tom@ssd.loral.com</a> or by phone at work at 650-852-4519 or at his home: 408-396-5588

Operation of the 145.230 repeater has been and will continue to be a joint effort by the SRI Amateur Radio Society (SARS) and the South Peninsula Amateur Radio Klub (SPARK). Over the years, many hams from both groups have pitched in to do everything from the grunt work of cleaning up the repeater site to designing new repeater hardware, to normal repeater maintenance, to dropping everything to provide repairs needed to keep the repeater on the air. This has been a cooperative group effort over the years, and Rich, W6APZ, is appreciative of everyone's efforts.ù ù ù

® Rich Stiebel, W6APZ

#### **FUEL CELL BATTERIES**

According to a Reuters report, Motorola researchers and scientists at the Los Alamos National Laboratory are working on a new mini-battery for wireless devices. The fuel cell, which uses methanol as the power source, will reportedly last 10 times longer than batteries used today. But, consumers will have to wait for at least three years to see them in stores. The battery will be packaged in a see-through tube, so users can check their fuel supply at any given time. The cost of the methanol batteries should be in line with current power supplies, Motorola says.

(Via ARRL Letter, 1/28/2000, courtesy Vic AB6SO)

Celebrating 63 years as an active ham radio club-Since 1937

## PAARA PONDERINGS

de VIC BLACK, AB6SO

Hedy Lamarr wasn't an Amateur Radio operator, but she probably should have been. The general population will probably remember the Austrian born movie star for her films, but her technical contributions may be more important in the long run. I was certainly unaware of her inventions when I was a grammar school boy watching her and Victor Mature starring in the 1949 film classic "Samson and Delilah".

Nevertheless, she was a trained drafter and excelled at kinematics, the design of machines using levers, pulleys and cams. Her hobby of collecting player pianos probably influenced her interest in the then male-dominated field of machine design. In order to clarify instructions she often visited machine shops that were working on her designs. It's possible the drawings didn't need clarification, but since she was known as "the World's Most Beautiful Woman" the machinists were always eager to have her visit! A person who knew her machinists told me that she would reassure them by saying, "Trust me, Darling. You will like it. It will work. Try it."

Unlike other film stars, she took great interest in the cameras and projectors during filming. She made many suggestions for redesigning and improving the film transport escapements from stop and go linear motion to rotary motions to eliminate wear on the film and flickering in the projected images. One industrial process improvement she initiated was used to grind valve faces that wouldn't leak under high gas pressure. The valves were used in rocket motors up until the time we put a man on the moon.

Her most important technical contribution was the invention for which she was issued a US Patent: Spread Spectrum Radio. She conceived of using a player piano-type paper tape at both the transmitter and receiver to create and decode the spreading algorithm. The frequency hopping tapes used 88 frequencies to match the number of keys on a piano. Her spread spectrum work languished during the Second World War, partly perhaps because the military wouldn't take her seriously ("Yeah, right! We're supposed to put a player piano into a torpedo"). It was used only a bit toward the end of the war for guiding torpedoes that couldn't be jammed. Much of her work was classified secret up through the 1960s. It was not until 1997 that she was finally paid any royalties for her Spread Spectrum invention that made cellular telephones possible. Shortly before her death on 19 Jan, 2000 she was asked about her contributions to the film industry. She replied, "Films have a certain place in a certain time period. Technology is forever."

Did you know that there is a local antenna with over 35 dB gain on 2 meters? The 150-foot diameter radio telescope behind Stanford University ("the Dish") was built by SRI for the US Navy in the 1960's to probe the scattering properties of the Earth's ionosphere. The antenna has been used in many research projects and is currently breaking records at 400 MHz for miles per watt while receiving signals from the Mars Orbiter. The reflector weighs 100,000 pounds with a total struc-

ture weight of 300,000 pounds and a dish diameter of 150 feet (45.7 meters). At 150 MHz it has a 3 degree half power beamwidth with 35 dBi gain. At 400 MHz it has a 1 degree beamwidth producing 43 dBi gain. The beamwidth drops to a quarter degree at 1420 MHz with a whopping gain of 52 dBi (put 100 watts in, get about 30 million watts effective radiated power out. This is just the ticket for the next EME contest!). The dish can track at 1 degree per second to elevations of approximately 65 degrees, which makes it useful for tracking LEO satellites. As Earth and Mars move away from each other, the 40-year old antenna continues to break records. John Callas of the Jet Propulsion Lab in Pasadena reported, "On 2000-01-27 at 18:30 UTC, the SRI antenna at Stanford detected the Mars Relay CW beacon, as expected. At that time Mars was 298 million kilometers distant from Earth, thus establishing a new distance record for the transmission and detection of a UHF signal. This surpasses Stanford's previous records of 230 million kilometers and 257 million kilometers."

The Mars beacon runs one watt at approximately 400 MHz. With Mars at 298 million kilometers from Earth and the speed of light at 298 million meters per second, it should take about 1000 seconds, or roughly 17 minutes, for signals to bridge the gap.

The PAARA December 3, 1999 club meeting featured the Orbiting Picosatellite Automated Launcher (OPAL) Satellite program at Stanford University. OPAL exposes graduate students to the design, construction, testing and operation of amateur satellites with objectives of building and launching satellites for less than \$50,000 in less than one year. The satellite featured in our December meeting was launched into orbit at 7:03 p.m. PST on Wednesday, Jan 26 from Vandenberg Air Force Base aboard a converted Minuteman II rocket.

Some current licensees may upgrade without further testing. If you hold or held a Technician license prior to Mar 21, 1987, and can provide documentary proof, then you meet the required criteria. You will be eligible to upgrade to General Class after April 15 by simply applying through a VE session. The reason for this? It's because the older Technician licenses matched the new General Class 5 wpm CW requirement and the written tests were the same as for the General Class license. But remember that the upgrade won't be automatic. You must apply for it and show proof of being licensed before Mar 21, 1987. Expect long waiting lines at the VEC testing sessions right after April 15. Recently, the volunteer examiners have reported 75 to 90 examinees at each test session. Most are testing for section 3b to upgrade from Technician to General, or 4b to upgrade to Extra Class.

Starting April first, Japanese operators will have enhanced operating privileges on 160 meters. Currently, they are allowed to transmit only on frequencies between 1907.5 and 1912.5 kHz. Their new privileges will include 1810 to 1825 kHz.

As we prepare to embark on a new century, there is a lot of talk about future technology and the direction Amateur Radio will take. Free up your mind and think about what you'd like to see if there were no constraints. Sometimes the constraints are there only because we refuse to think something is possible. I've met many people who waited all their lives to pursue their dreams. They were afraid of failure and waited for the security

(Continued on page 25) Ponderings

### **WEB WANDERINGS**

de Vic Black, AB6SO

The PAARA satellite launch program is officially under way. If you'd like to keep up with launch activity from Vandenberg AFB, there's an e-mail reflector just for you. Editor Brian Webb KD6NRP sent an e-mail to alert us to the Astronomy/Space Alert for South-

ern California, a free, e-mail based newsletter that provides notification of upcoming missile launches from Vandenberg AFB and coverage of southern California astronomy and space news. To subscribe, send an e-mail message: To: <a href="majordomo@qth.net">majordomo@qth.net</a>. Subject: Leave blank. If your e-mail software won't send a message that lacks a subject, enter "hi". Message Text: subscribe launch-alert.

The San Jose Mercury News had an article about the release of the first picosats from the Stanford OPAL "mother ship" satellite. For the full report, go to <a href="http://www.sjmercury.com/premium/local/docs/minisat09.htm">http://www.sjmercury.com/premium/local/docs/minisat09.htm</a>.

Along these same lines, **Omri Serlin AA6TA** sent a message reporting on visual sightings of satellites during the gray line or twilight. "The International Space Station (ISS) is visible right now, as is the MIR space station, Hubble space telescope, the Iridium satellites (responsible for the "Iridium flares"), the American Space Shuttle (when in 50-degree or so orbit inclination) and several others. In all these cases, visibility requires that (a) the satellite be in sunlight while the observing point on earth is in darkness (i.e., just after dusk or just before dawn). (b) the satellite has sufficient reflecting surfaces. A good Internet site for predicting satellite visibility is: <a href="http://www.heavens-above.com">http://www.heavens-above.com</a>."

The Arizona State University Satellite, ASUSat1, launched with the Stanford satellites, has failed in orbit. It operated for 15 hours on batteries, but the solar power supply didn't kick in to recharge the batteries. ASUSat1 has a packet digipeater as well as a 2 meter/ 70 cm FM voice repeater onboard. The web site <a href="http://nasa.asu.edu/asusat">http://nasa.asu.edu/asusat</a> includes a PowerPoint presentation on the design of the satellite along with tutorials for small satellite design, including CanSats. There's lots of information there for budding satellite designers.

I've written about PSK-31 several times. Many Europeans are successfully using the mode on 2 meters and US stations are investigating it as a viable VHF mode. I'll stick my neck out and predict that the first terrestrial VHF North America to Europe contact will be accomplished on 2 meters using PSK-31 because of the increasing number of users and because of its unique ability to pull signals up out of the noise floor.

Jim Durkin KT4A has collected web information on this new digital mode. QST featured PSK-31 in the April, 1999 issue on (pages 50-51) and in the May, 1999 issue (pages 41-44). These are available on the ARRL home page, <a href="http://www.arrl.org">http://www.arrl.org</a>. Look under information and services or search. You do not need to be an ARRL member to read these. The original source for PSK-31 information is <a href="http://aintel.bi.ehu.es/psk31.html">http://aintel.bi.ehu.es/psk31.html</a>. Other sites include <a href="http://www.mindspring.com/~ae4jy">http://www.mindspring.com/~ae4jy</a>, <a href="http://www.mindspring.com/~ae4jy">http://withtp://www.mindspring.com/~ae4jy</a>, <a href="http://www.mindspring.com/~ae4jy">http://withtp://www.mindspring.com/~ae4jy</a>, <a href="http://www.mindspring.com/~ae4jy">http://withtp://withtp://www.mindspring.com/~ae4jy</a>, <a href="http://www.mindspring.com/~ae4jy">http://witht

www.qsl.net/wm2u/psk31.html and <a href="http://www.megalink.net/">http://www.megalink.net/</a> ~n1rct/psk/pskin.html. The megalink.net site has lots of other links. There are a couple of interesting files on PSK at <a href="http://www2.tpg.com.au/users/vk6pg/vk6sig">http://www2.tpg.com.au/users/vk6pg/vk6sig</a>. Jim suggests reading the QST articles first to make the web pages more understandable.

PAARA member Steve Stearns KF60IK reports, "Amateur Radio operators should be interested and well informed on the latest medical research on the health effects of RF exposure. Amateurs are in a unique position to disseminate scientific information and earn public trust for the hobby. Sadly, the ARRL web site only covers the standards side of RF exposure and has no information on health effects. I am submitting the following URL's to Web Wanderings in the hope that PAARA members will become better informed and able to better represent the hobby. Here are two authoritative medical research web sites on the health effects of RF exposure: http://www.mcw.edu/ gcrc/cop/cell-phone-health-FAQ/toc.html and http://deas. harvard.edu/~jones/cscie129/pages/health/intense.htm." Many of you read the weekly ARRL news reports. You may also want to read the GB2RS Weekly News Service of the Radio Society of Great Britain (RSGB). It's located at http://rsgb.org/ news/gb2rs.htm. There's news not only from Great Britain, but also from other English speaking countries.

Have you been holding off buying a GPS unit to use for hill-topping, VHF contests, fox hunts, etc? Go to <a href="http://www.joe.mehaffey.com">http://www.joe.mehaffey.com</a> for hundreds of links to GPS. There are product reviews for all the popular models, software enhancements, beginner tutorials, APRS links, equipment recommendations and more.

Fred Lloyd AA7BQ from QRZ! Database reports that he now has over 14,000 mini-biographies in his on-line callsign database. The database allows instant searches through the biographies to locate other Amateur Radio operators with interests similar to your own. For this information, go to <a href="http://www.qrz.com/biosearch.html">http://www.qrz.com/biosearch.html</a>. While there, you may want to add your own biography. In addition, you may send a photo of your shack or your QSL card for inclusion in the database. ù

® Vic AB6SO

# Repeater W6APZ becomes N6NFI

Rich Stiebel

Rolf Klibo

(Continued from page 24) Ponderings

of a pension check before developing their ideas. They very quickly succeeded in their new endeavors and were disappointed that they hadn't started sooner. The restructuring plan for Amateur Radio licensing will help to bring additional talented people into the hobby and keep it from becoming stagnant. The present was built on the dreams of visionaries who came before us. Try to brainstorm some new and fresh ideas. Our legacy of synergistic dreams will be the reality of future generations. ù ù ù \(\text{w}\) \(\text{vic AB6SO}\)

Celebrating 63 years as an active ham radio club-Since 1937

## Technical Tip

By Vic Black AB6SO
Portable Packet For Less Than \$50
You can get into PORTABLE packet radio for

less than \$50 total if you already own a 2-meter HT. Check the New Jersey QRP club's special interest page at <a href="http://www.njqrp.org/poqetpc/index.html">http://www.njqrp.org/poqetpc/index.html</a>. You'll find out how you can order a surplus or reconditioned Poquet palm top computer for \$25, plus shipping. Is this an "obsolete" computer? Well, that all depends. Is your reconditioned 1992 BMW sedan an "obsolete" car? If it works the same now as it did when it was new, and you lusted after one in 1992, then maybe it's not so obsolete after all. Most computers become obsolete because there isn't any software available. The Poquet runs under DOS so there's a lot of Amateur Radio software available. Newer palm tops operate under Windows CE (NOT the same as Windows 95, 98, etc.) and don't have as much software available as the Poquet does.

Here's what the NJQRP page says as an introduction to their special interest group: "The Pocqet PC is a small, batterypowered 'palm top' computer that runs the DOS operating system and has an RS-232 serial port and non-volatile SRAM cards for disk storage. These little computers are absolutely perfect for use out in the field with battery power (such as Field Day) and in portable operating events: contest logging, serial terminal for control of rigs, note-taking, data gathering, etc. Powered by 2 'AA' batteries, the Poqet PC has a flip-up 80 char x 25 line LCD display and a pretty usable keyboard. The 1 megabyte removable PCMCIA SRAM cards can also plug into your full-blown laptop in order to transfer files between the computers, and the built-in software (editor, calculator, scheduler, address book and terminal emulator) allows you to use this 8088 XT-compatible computer for many purposes around the radio shack. The Poquet PC was marketed and sold in 1992

for about \$300 as one of the first palmtop computers (along with HP), but was bought out by Fujitsu and then discontinued. Recently, a computer vendor in New Jersey latched onto a large quantity of left-over and refurbished units and is selling them for \$25, including leather carrying case, modem and two 1MB SRAM 'RAM-disk' cards. Another model has also just become available providing NiCAD batteries, larger SRAM cards and a backlighted LCD screen."

The page has links to software vendors (mostly free- and share-ware) as well as tips on upgrading the memory and tips on Amateur Radio use. PCMCIA memory cards from video recorders are commonly available and will work with these little computers. The Poquet has been tested and is being used as a Packet Radio terminal emulator in conjunction with the BayCom v 1.6 Packet Radio Software. Go to <a href="http://www.tigertronics.com/baycom.htm">http://www.tigertronics.com/baycom.htm</a> for software ordering information (costs \$20).ù

® Vic, AB6SO

Radiofest

The Naval Postgraduate School Amateur Radio Club (NPSARC) held its(sometimes) annual Radio fest or Winterfest on Saturday, 19 February at the Stillwell Community Center on what used to be known as Fort Ord.

Despite problems with advertising and their web site, the event drew approximately 200 people, some as far away as Los Angeles; The Radio fest consisted of a meager flea market, vendor booths and a series of one hour presentations, along with hourly door prizes and food service provided by a Boy Scout troop. The event was sanctioned by the ARRL and the ARRL had a significant presence at the event, including a substantial publication sales counter.

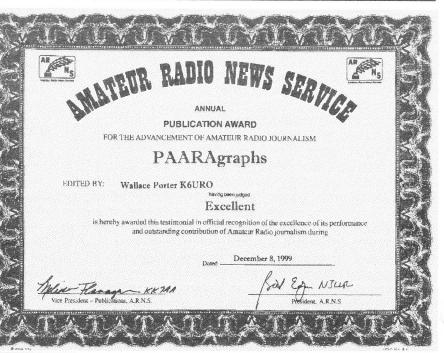
Four one hour presentations included:

- Dave Rank KO6RS "Mirages, Ducts and DX from Monterey to Hawaii"
- Jim Maxwell W6CF Pacific Division Director, Glenn Thomas WB6W SCV Section Manager and John Wray KM6GE SCV Emergency Coordinator spoke on the ARRL in general and in particular about the licensing structure. Jim Maxwell pointed out that Dave Sumner K1ZZ, ARRL Executive Vice President of ARRL will be present at the next Pacificon in October of 2000.
- **Dr. Russell Coile K6FVH**, the Emergency Manager for Seaside on the "Role of Amateur Radio in Disasters"
- Jim Vanderzwaan of KSBW-TV lead weather forecaster on "Weather Forecasting and Satellite Communications."

The event was well managed by an enthusiastic group of NPSARC club members

lead by Barbara Teunis N6XCX

® Donald L. Trask, KF6JMQ





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Join us for pre-meeting eyeball QSO March 3rd qab & qobble

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



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• 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 PAARAgraphs, \$6 for additional family members (no newsletter). Make payment to the Palo Alto Amateur Radio Association.

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## PAARAgraphs March 2000

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



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# RADAR before the magnetron

A technical history of Allied radar on the eye of World War II

The late 1930's was a period of intense developmentin high-frequencyradio technology, focused by the desperateneed for air defensein the impendingworld conflict. The result of these researchefforts was radar - deployed internationally in 1939 - but its full potential was not realized until the invention of the microwave cavity magnetronin 1940. Until then, early WWII radars operated at meter wavelengths, using techniques borrowedfrom the shortwave and early television disciplines. Using vintage film clips, modern computer analysis, and period hardware, this 45-minute presentation will highlight the technical innovations, operation, and legacies of two of the mr early radars deployed by the Allies, the British Chair

the American SCR-270. Rick Ferranti **WA6NCX** March 3, 2000

Hdaafalllaadhaaldallddaadlldaldalda Korsak, Andy KR6DD 504 Lakemead Way Redwood City, CA 94062-3919































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