

Calendar for April 2000

May 3rd, at 7:30 P.M. in the evening, the Sonoma County Radio Amateurs Club will be having their monthly membership meeting; at Aglient Technologies (formerly Hewlett Packard), which is located at 1400 Fountain Grove Parkway in Santa Rosa.

May 10th, at 6:00 o'clock P.M. in the afternoon, The Sonoma County Radio Amateurs Club will be having their Monthly Board of Directors meeting at Masterstouch Mortgage located at 8979 Conde Lane in Windsor. All SCRA members are welcome to attend.

Sonoma County Radio Amateurs, Inc.
PO Box 116
Santa Rosa CA 95402-0116

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WB6FRZ

 Club Station W6LFJ	<h2>Short Skip</h2> <p>Sonoma County Radio Amateurs, Inc PO Box 116, Santa Rosa, CA 95402-0116 146.730 MHz • 224.48 MHz • 441.375 MHz</p>	 Repeater Station W6SON
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Volume 25 Number V

<http://cds.cds1.net/scra/>

May 2000

Hams Help Get Wounded Boy from High Seas to Hospital

In a dramatic situation that is still unfolding in Central America, Amateur Radio operators on the 20-meter Maritime Net have helped get a wounded boy to safety following an attack by what are being called "pirates."

The nightmare began the afternoon of March 28 for the family of Jacco van Tuyl, KH2TD, as he and his 13-year-old son Willem, were in inflatable dinghy, not far from their 44-foot sailing sloop. Wife and mother Jannie van Tuyl, KH2TE, remained aboard the sailboat.

Jacco van Tuyl said the family had left the San Blas Islands a couple of days ago and was anchored behind a reef with a couple of other sailboats in the vicinity--one at anchor--some 50 miles off the coast of Honduras.

The father and son were visiting with acquaintances the other anchored sailboat when Jacco van Tuyl saw four or five men in an open wooden boat come alongside his vessel and board.

van Tuyl and his son headed back toward their vessel, but one of the pirates brandished a machine gun when they were about 20 yards away. In ensuing gunfire, the boy was wounded in the abdomen and the dinghy was damaged and flipped over. van Tuyl said the marauders "got nervous" and left the scene after taking the damaged dinghy and outboard motor aboard.

van Tuyl hauled his injured son, bleeding badly, back to his sailboat and got him aboard. van Tuyl checked into the Maritime Net on 14.300 MHz, seeking urgent assistance. The other two vessels in the vicinity and the van Tuyl's then pulled anchor and headed for Honduras.

In the meantime, the family rendered first aid to Willem. Two Amateur Radio-physicians--one believed to be Jim Hirschman, K4TCV--in Florida provided the family with valuable medical advice that van Tuyl thinks helped to keep the youth alive overnight until they could rendezvous with a Honduran Navy vessel that had been alerted by another amateur on the Net. In the US, Clark Lowry, N7AAC, in Arizona, was among those on the Net who contacted the US Coast Guard to render possible assistance.

The van Tuyl's vessel arrived this morning off Honduras.

After mother and son were taken aboard the Honduran Naval vessel at around 9 AM Wednesday (ET), they were helicoptered to a hospital facility on shore. The boy was reported to be in stable condition but headed for surgery Wednesday afternoon. Ed Petzolt, K1LNC, in Florida was able to phone patch the van Tuyls via Amateur Radio so they could discuss their son's current condition. He was able to call the hospital with the help of information from the US Embassy in Tegucigalpa, Honduras.

Jacco van Tuyl remains aboard his boat, awaiting further word on his son's condition.

The van Tuyls are from the Netherlands and have been sailing all over the world for the past five years, logging some 40,000 miles of travel. Jacco van Tuyl said he and his wife decided to get their Amateur Radio tickets during an extended stay in Guam. Both hold General class licenses. van Tuyl agreed that the decision to get licensed turned out to be a good one.

Is there a RED STAR near your address label?

If so, this means that according to our records, we have not received your dues for this year. It also means that this is your last copy of Shortskip as your membership in SCRA has expired. Think of what you will miss: The meetings and super programs; Field Day; getting together with your friends; and of course, the fabulous Christmas party, to name a few. And, we will miss YOU! Pay your dues TODAY! (Of course, if you really did pay your dues, it may have crossed in the mail or traveled off into the ether.....if it is a mistake, let us know. We will research it)



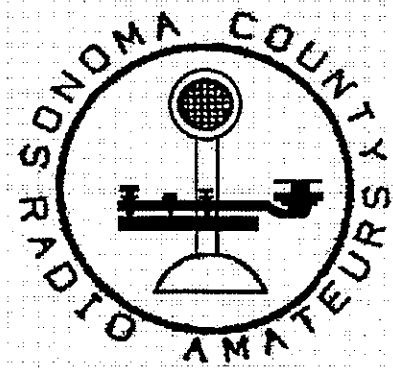
2000 Club Officers

PRESIDENT	Rick Reiner	K6ZWB	575-4455
VICE-PRESIDENT	Greg Gordon	AC6VJ	523-7077
SECRETARY	Bill Hillendahl	KH6GJV	538-0331
TREASURER	Jim Cardillo-Lee	KE6VGV	778-7474
MEMBERS-AT-LARGE	Bill McCall	W6WD	538-2844
	Rich Freitas	KF6SZA	578-9335
REPEATER CHAIRMAN	Greg Gordon	AC6VJ	523-7077
ACTIVITIES	Jeff Basham	W2JAB	575-9354
PUBLIC SERVICE	John Mullan	KD2LQ	575-9176
PAST PRESIDENT	Larry Gustafson	KD6VUM	523-0266

----- SHORT SKIP STAFF

EDITOR	Henry Tate	KE6ORF	415-663-8227
AUDIO TAPING	Jeff Basham	W2JAB	575-9354
SWAP SHOP WEB ED.	Jeff Basham	W2JAB	575-9354
SCRA Webmaster	Jeff Basham	W2JAB	575-9354

Short Skip Editor E-mail ke6orf@arri.net



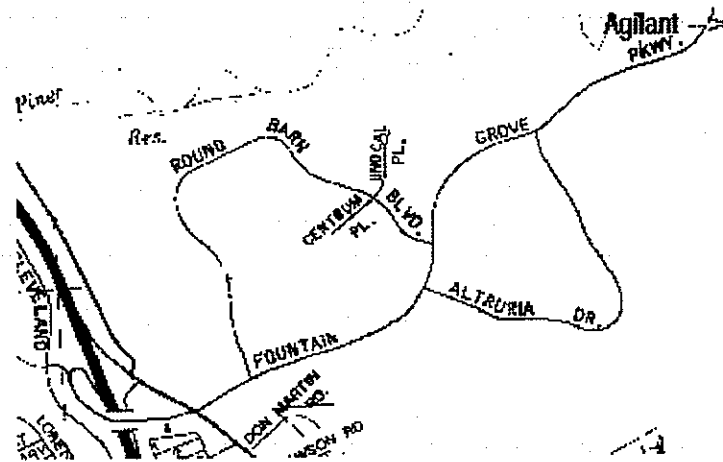
CLUB MEETINGS

7:30pm on the first Wednesday of each month at the Agilent plant (formaly HP) in SANTA ROSA. See map below.

ALL ARE WELCOME!!

We invite you to attend our next monthly meeting. Membership in SCRA is open to anyone interested in Amateur Radio. If you would like to join, there is a membership application in this issue.

Next Meeting:
May 3, 2000
 7:30pm
 Program, Moon Bounce



SCRA HOTLINE: 707-579-9608 or e-mail scra@cds1.net
 Web Address: <http://cgs1.net/scra>

Tuesday Night Net

Check into the Tuesday Night SCRA net on the 146.73 repeater at 7:00pm. Announcements of upcoming SCRA activities, a Swap Shop, and the latest Amateur Radio News line broadcasts can be heard.

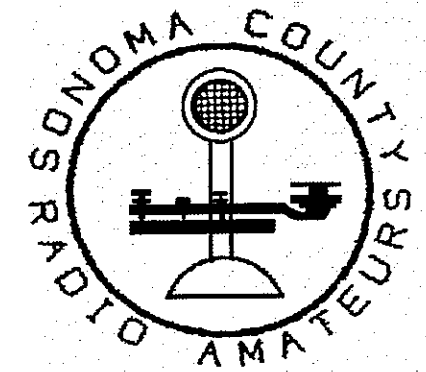
Short Skip Advertising Rates

Business Cards:	\$10
First Quarter Column:	\$11
Each Additional Quarter Column	\$ 3
Full Page, one side	\$32
Pre-printed inserts	\$32/sheet

Guaranteed Circulation of 200 per month

CONTACTS

Public Relations	Bill McCall	W6WDM	538-2844
TVI/RFI	Alan Bloom	N1AL	538-7115
Refreshments	Ted DeCroff	KB6PTA	542-4008
	Dawn Silveira	KA6OPN	763-1457
Raffles	Jeff Basham	W2JAB	575-9354
Antenna Ordinance/Legal	Lee Dibble	KE6EAQ	544-1675



Application for Membership in SCRA

Name _____ Call sign _____ License Class _____

Address _____ Phone _____ Date _____

City _____ Zip _____ E-mail _____

New Renewal

SCRA Dues: The renewal date for SCRA dues is March 1st. Dues are \$18/year for individual and \$27/year for families. The new member initiation (badge) fee is \$7/person. Dues for new members only are prorated at \$1.50/month for individuals and \$2.25/month for families, starting at renewal time. ARRL dues: \$34/year, (\$28/year over 65 with proof of age.) Under 21 rates require application form. When renewing your ARRL membership, do it through the club and SCRA gets to keep some of the money.

(Please make checks payable to SCRA.)

I WOULD LIKE MORE INFORMATION ABOUT:

- | | |
|--|--|
| <input type="checkbox"/> Public Service Events | <input type="checkbox"/> Helping with SCRA Flea Market |
| <input type="checkbox"/> Emergency Services | <input type="checkbox"/> Acting as Net Control Station |
| <input type="checkbox"/> Taking a Novice or Technician class | <input type="checkbox"/> Helping with VEC license exams |
| <input type="checkbox"/> Teaching a Novice or Technician class | <input type="checkbox"/> Field Day and other operating events |
| <input type="checkbox"/> Taking an upgrade class | <input type="checkbox"/> Helping with <i>Short Skip</i> (newsletter) |
| <input type="checkbox"/> Teaching an upgrade class | <input type="checkbox"/> Other _____ |

BADGE (New Members Only)

Fill in this section exactly as you want it to appear on your badge.

Call sign _____

First Name _____

City: _____

Auto slot Request: Licensed SCRA members are entitled to a repeater auto slot. Fill in the information below to apply and send the form to: SCRA, PO Box 116, Santa Rosa CA 95402

Name: _____

Call sign: _____

Phone Number: _____

PRIZES PLEDGED IN FREQUENCY PROMOTION COMPETITION

An ICOM IC-746 HF plus VHF transceiver is among the prizes pledged by manufacturers for the club that does the best job of promoting Amateur Radio at a local theater screening the movie Frequency. The ham radio-related sci-fi thriller is expected to debut April 28. Local show schedules could vary.

Other prizes and donors--to date and in no particular order--include a Heil Sound GOLDLINE studio microphone from Heil Sound; a KT-36 tribander from M2; an AR-147+ 2-meter mobile transceiver and PMC-100 desk mike from ADI; coaxial cable from Cable X-Perts; a Delta 4C desktop console coax antenna switch and video/book, Basic Technology for the Amateur Radio Enthusiast from Alpha Delta; a 40-meter double bazooka antenna from International Antenna Corp; and a DJ-V5TDC (clear-blue) dualband H-T from Alinco.

In addition, the ARRL will donate the choice of a 2000 ARRL Handbook for Radio Amateurs or 2000 Handbook CD-ROM to each participating club.

Premier/ADI Marketing Director Ken Collier, KO6UX, is enthusiastic about the promotional potential the movie offers. "As an Amateur Radio operator, it is exciting to see our hobby so prominently featured in a major studio movie like Frequency, and I see it as an incredible opportunity," he said.

Winners of the competition will be selected based on each club's written description of its promotional activity. The awarding of the prizes will be determined by a panel consisting of representatives of the manufacturers and suppliers who donated to the prize pool. The League has agreed to receive submittals for the competition. The activity descriptions must be submitted no later than 5 PM Eastern Time on June 30, 2000, to Marjorie Bourgoin, KB1DCO, Field and Educational Services, ARRL, 225 Main St, Newington, CT 06111. Clubs are encouraged to include a letter from their local theater attesting to how many people may have been reached through the promotion, but this is not an absolute requirement. Decisions of the awards panel are final.

Some clubs also may be able to get free passes to a sneak preview of the film. A field publicity representative for the film's distributor, New Line Cinema, said that select clubs in the top 50 markets where early screenings are being held will be offered the opportunity to get passes to a sneak preview during the week of April 24. Clubs contacted may also be asked about their promotional activities for the weekend of the movie's release.

Clubs selected to attend a Frequency sneak preview will be contacted during the week of April 17. If available, tickets would be distributed on a first-come, first-served basis, at the discretion of New Line Cinema. Clubs are being urged to contact their local theaters to inquire when Frequency will show in their area and about the possibility of on-site

promotion on behalf of Amateur Radio.

Frequency was directed by Gregory Hoblit. The movie uses ham radio as a plot device that lets a long-dead father (Dennis Quaid) and his adult son (John Caviziel) meet up on the airwaves via ham radio--during the mother of all sunspot cycles. Eventually, they conspire in efforts to change the past. The ARRL was consulted in the interests of accuracy, but no League representatives have viewed the film.

For more information on "Frequency," visit <http://www.frequencymovie.com>.

Arrl officials having fun in Paris

League officials in Paris for IARU anniversary: ARRL President Jim Haynie, W5JBP, and Executive Vice President David Sumner, K1ZZ, will represent the ARRL at the celebration of the 75th anniversary of the founding of the International Amateur Radio Union, April 18 in Paris. A meeting of the IARU Administrative Council will be held in conjunction with this event. The IARU, founded in 1925, is a worldwide federation of national Amateur Radio societies with members in 150 countries and separate territories.

Mir back on ham radio?

Mir back on ham radio: Ian Coots, VK3YIC, reports the Russian Mir space station was on the air working VK stations April 13 on 2 meter FM simplex (145.985 MHz). The operator identified variously as R0MIR and U8MIR. "Your signal 59, very nice. Thank you for contact. 73. Bye!" The Russian-accented operator told one VK station in an audio clip Coots provided. Several other stations were worked or heard calling.

Who's too old?

You're never too old to upgrade: Volunteer Examiner John Creel, WB3GXW, of Maryland's Laurel VEC, reports a heartwarming experience at a VE session Sunday, March 26, at the Greater Baltimore Hamboree and Computerfest. During the session, the team tested 148 applicants who took 205 elements, including several upgrades to Extra. "The highlight was when Charles A. Earp Jr, W3DKT, came through the door," Creel relates. "He had in his possession his 1933-issued license. At 83 years and one month he upgraded to a grand Extra by passing Elements 4B and 1C. His CSCE was signed by all 23 VEs who worked the session. What a day!" The team's next test date is April 15.--John Creel, WB3GXW

The items on this page are from the ARRL letter.

Sonoma County Radio Amateurs, Inc. Membership Meeting 4-5-2000

MINUTES

1. Call to Order, Verification of Quorum - The meeting was called to order by President Rick Reiner K6ZWB at 7:35 PM at the Santa Rosa Agilent Technologies facility. There were 40 people present.
 - a. Introductions I. Officers & Directors - The club officers and directors introduced themselves. ii. Guest Speaker - Homebrew Night & ARRL SF Section Manager Len Gwinn WA6KLG iii. Visitors - Ed Jacobsen W1EJ, Miklos Kara KB9OKG and Neveia Chappell KB9RAI from Indianapolis, In., Brian Lukrich KG6AQT and Diane McCullough introduced themselves. iv. New Calls & Upgrades - Sue Bennett KF6QET to Advanced
2. Approval of Minutes - Jeff Basham W2JAB moved that the minutes of the March 1, 2000, be approved as printed in Shortskip. The motion passed.
3. Officer & Director Reports
 - a. Treasurer - Jim Cardillo-Lee KE6VGV reported on the current balances in the club accounts. He also discussed the HamCall CD order left over from last Fall. He will recheck with those that ordered to see if they are still interested.
 - b. Officers - Secretary Bill Hillendahl KH6GJV invited the members to review the binder of newsletters received from other clubs. Bill pointed out the member badges that need to be picked up. Bill said that he would be visiting the Marin Amateur Radio Club at its meeting on Friday. He invited members to join him. Bill showed the ARRL Field Day 2000 pin that was available. The pin is a limited edition. Bill offered to order pins as a group. Those interested should contact him.
 - c. Directors - None.
4. Committee Reports
 - a. Activities Committee - Jeff Basham W2JAB announced upcoming amateur radio activities in the area.
 - b. Newsletter Editor - Henry Tate KE6ORF - Henry was complimented on the great newsletter.
 - c. Public Service - John Mullan KD2LQ said that the first public service event would be the MS Walkathon on April 9th, Sunday, from 9 AM until about 1 PM. John said that he had signups for the event. He reminded the membership of the Wine Country Century on May 6th and passed a signup list. John asked the members to watch Shortskip for details.
 - d. Repeater Committee - Greg Gordon AC6VJ invited anyone interested in serving on the Repeater

Committee to contact him. A meeting of the Repeater Committee would be held on Thursday, April 6th at 7 PM, at the Montgomery Village Round Table Pizza. Members are welcome to attend. Greg went on to report that the firmware eeprom on the Sonoma Mountain controller was changed recently. The change causes all prior programming to be lost. Members interested in having an autoslot for the autopatch should fill out an autoslot request form at a meeting or from Shortskip. The power supply for the 2 meter repeater on English Hill is being repaired. It has had a "hum" for several years that had not been repaired.

5. Unfinished Business - None
6. New Business
 - a. Fred Leoni N6YEU said that he had been asked if the club could borrow his tower for Field Day. Fred said that it was fine with him and that he would show people how to put it up.
 - b. ARRL San Francisco Section Manager Len Gwinn WA6KLG spoke about happenings in the section. He advised that he had appointed Bill Hillendahl KH6GJV as Assistant Section Manager and Lee Dibble KE6EAO as Section Emergency Coordinator. Len went on to say that he planned on a strong Amateur Radio Emergency Service (ARES) in each county that will cooperate as needed with other emergency services organizations. Len reminded the group of the VHF/UHF contest on June 10th and 11th.
7. Recess - The meeting went into recess at 8:15 PM and resumed at 8:35 PM.
8. Program - Homebrew Night - John Breckenridge WB6FRZ showed his customized duplexer; Sue Bennett KF6QET showed her homebrew code practice oscillator; Brian Torr N6IY displayed his homebrew 2-element, 10 meter beam; and Len Gwinn WA6KLG showed a variety of homemade VHF & UHF antennas, some of which he donated to the club for the raffle.
9. Raffle
 - a. Regular - The 50/50 raffle was won by Andy Goldstein AD6JZ who split \$36 with the club. Rick Reiner K6ZWB won a 440 beam and John Valencia KG6AAX won a 2 meter beam.
10. Announcements
 - a. Next Program - EME/Moon Bounce
 - b. Board Meeting next Wednesday at Master's Touch Mortgage, 8979 Conde Lane, Windsor, at 6:30PM.
 - c. Dayton Hamvention - May 19 - 21, 2000; see Bill KH6GJV for details.
 - d. Bill Hillendahl KH6GJV spoke about his recent activities on 10 meters mobile. e. John Mullan KD2LQ said that the manual for the TS-870 he just got was in Spanish.
11. Adjournment - The meeting was adjourned at 9:05 PM.

Sonoma County Radio Amateurs, Inc.
Board of Directors Meeting 4-12-2000

MINUTES

Board Members Present: Greg Gordon AC6VJ, Bill Hillendahl KH6GJV, Rich Freitas KF6SZA, Bill McCall W6WDM, John Mullan KD2LQ, and Jeff Basham W2JAB.

Board Members Excused: Rick Reiner K6ZWB and Jim Cardillo-Lee KE6VGV.

Board Members Absent: Larry Gustafson KD6VUM

Guests Present: Brian Torr N6IY and Sue Mullan.

1. Call to Order, Verification of Quorum, Introductions - The meeting was called to order by Vice President Greg Gordon AC6VJ at 6:35 PM. The meeting was held at the offices of Master's Touch Mortgage, 8979 Conde Lane, Windsor. A quorum was present in that six of the nine voting board members were present.
2. Approval of Minutes - Jeff W2 JAB moved that the minutes of the Board meeting of March 8, 2000, be approved as printed in Shortskip. The motion passed.
3. Officer & Director Reports
 - a. Treasurer - The Treasurer's report was deferred as the Treasurer was not present.
 - b. Officers
 - i. Secretary
Mail & Communications - Bill KH6GJV distributed the mail to the appropriate officers and presented the newsletters that the club had received. Generator Title - The issue is pending.
 - c. Directors - None
4. Committee Reports
 - a. Activities Committee - Jeff Basham W2JAB
 - i. Field Day - Jeff advised that the permit from the City of Santa Rosa was in. ii. Swap Meet - Jeff is waiting on a report from Rick and Jim about the sites for the event.
 - b. Newsletter - Henry Tate KE6ORF was not present to make a report. Jeff W2JAB moved that the May issue of Shortskip be the last to members who were not current with the dues. The motion passed.
 - c. Public Service Committee - John KD2LQ reported that the MS Walkathon on 4/9 went well. Future events are: 5/6 Wine Country Century; 6/17 Terrible Two, 7/15 Healdsburg Harvest Century, 9/23-24 Wave to Wine. He was also approached by the Sonoma County Hot Air Balloon Classic for help on 7/1-2. He will have more details as the events gets closer. Use of packet for the Terrible Two was discussed. It will be looked into.
 - d. Repeater Committee - Greg Gordon AC6VJ
 - i. Status of Repeaters - Recent correspondence was reviewed. Greg reported on issues at English Hill. The PL deck for the 440 control receiver had failed thereby passing all audio to the controller which caused the problem. The controller is now working properly. The 2 meter REPCO transceiver has had an AC hum for some time. Greg is working on it. Greg had also received a service manual for the Uniden 440 transceiver. Greg had met with Bob Magnini and Al Ferrera, the site managers for English Hill. Al and Bob had commented that they and

Bruce Donecker had not really been recognized for the donation of the space and utilities for the site. The Board members commented on this unfortunate oversight. Greg AC6VJ moved that Al, Bob and Bruce be granted free membership in SCRA to run concurrently with the club equipment's presence on the radio site. The motion passed. It was also noted that a letter of appreciation should be drafted and sent to them.

- ii. Net Control Operators for the Weekly Net - 4-18 RMW, 4-25 JAB, 5-2 VJ, 5-9 WDM, 5-16 JAB, 5-23 WDM, 5-30 JAB.
5. Unfinished Business
 - a. Meeting Programs - May - EME by Al and Bob; Jun - Field Day; July - PG&E Electric & Gas Safety, Future program ideas - Cell Phone Technology, Surface Mount Devices, CATV Systems, ARRL Pacific Division Director and/or Section Manager, Force 12
 - b. Club Calendar - No changes
 - c. Storage of Club Property - A work party is needed to build shelves at Lee Dibble KE6EAQ's for the club property. The issue is pending.
 - d. Review and Acceptance of Inventory - Greg AC6VJ said that he had reviewed the listed club property on Sonoma Mountain. That listed was present.
 - e. 2000 Budget - There being no objection, the review of a draft budget was deferred to the next meeting.
6. New Business
 - a. Greg AC6VJ said that the corporation constitution and bylaws needed revision. Specific issues that he thought necessary to be dealt with were the non-member elected directors, setting a limit to missed meetings for officers and directors, and revision of the member-of-the-Year selection process. Greg asked Bill KH6GJV to head up a revision committee. Bill said that he could do it in the Summer months, but required assistance from other Board members and interested club members.
7. Announcements - Jeff W2JAB said that Lee KA6VAF needed help with his antennas. A general membership meeting of NARCC is being held on Saturday, April 22nd in Concord.
8. Adjournment - The meeting was adjourned at 8:36 PM

At the last meeting.....

Last meeting was our annual Homebrew Show. John Breckenridge WB6FRZ showed his customized duplexer; Sue Bennett KF6QET showed her homebrew code practice oscillator; Brian Torr N6IY displayed his homebrew 2-element, 10 meter beam; and Len Gwinn WA6KLK showed a variety of homemade VHF & UHF antennas, some of which he donated to the club for the raffle. Len also showed his 40-element, 100 foot long 2-meter beam. It was great!

Purer Than The Driven
By Tom Koppel
03/31/2000
Sydney Morning Herald

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A space program spin-off, the fuel cell has taken decades to become the touchstone of tomorrow's transport. Its only emissions are heat - and water clean enough to drink.

The future - and survival - of the car as we know it wasn't decided in a sophisticated Japanese laboratory or the motor capital of the world, Detroit.

The story began in 1975 in Arizona cactus country with Dr Geoffrey Ballard, a tenacious and idealistic Canadian geophysicist who had directed US Army laboratory research and headed an energy Conservation program for the US Department of Energy.

Ballard poked his way through a derelict motel a short walk from the Mexican border and held his nose. He needed a cheap laboratory in which to pursue his dream of finding an alternative to the internal Combustion engine.

He bought the motel for \$2,000 and burned the filthy mattresses, but the building still stank, so he persuaded the local fire department to come out for a training exercise. Watching their hoses blast the Place clean, Ballard planned the layout of his lab, and how he would go about reducing the world's consumption of fossil fuels ...

Fast forward to April last year in the Californian capital of Sacramento. State Governor Gray Davis told a gathering: "Our Long-term goal is very simple. Zero emissions in the air. Zero. Nada. Nothing. Zip."

Zero, that is, except for heat - and water clean enough to drink.

A crowd had gathered to hear Davis announce a bold State initiative, and to see the latest non-polluting automobiles from DaimlerChrysler and Ford.

Running on electricity, the peppy performance of these cars dazzled the spectators. The two car giants promised to have them in commercial production in about 2003 or 2004. A new era of environmentally friendly transportation was poised to begin.

At the heart of these vehicles is the Ballard fuel cell, the drastically improved version of an exotic and prohibitively expensive technology developed by General Electric for the US space program and then shelved.

A fuel cell is like a battery, but better. It requires no overnight charging. It simply reverses the familiar high-school science demonstration that runs electricity through water to produce hydrogen and oxygen.

A Ballard fuel cell sandwiches a polymer plastic membrane coated With platinum between two flat electrodes. Hydrogen flows in on one side, oxygen from the air on the other. They combine to form water pure enough to drink, and generate electricity without combustion or nasty emissions.

For the first few years, Ballard and his cronies tried to develop a lightweight lithium-based rechargeable battery to run electric cars.

They soldiered away on shoestring budgets, stumbling upon exotic chemicals and nearly blowing themselves up in the process. Their families pitched in and made financial sacrifices.

Eventually, operations moved to British Columbia, Canada, where the company went bankrupt and was then revived for a fresh start. The battery never worked well enough, but the Canadian military wanted a fuel cell developed as a quiet power source with low infra-red emissions.

With its battery expertise, Ballard Power Systems was ideally suited for the project. Funding was just half a million dollars for the first two years, only enough to fund a technical team of three. They took The abandoned GE fuel cell - the patents were running out - and searched for ways to improve its power and build it from much cheaper materials.

It was a case of small being beautiful. There was no corporate bureaucracy to slow them down, no need to justify their experiments Or file endless reports. If something didn't work, they sent out for Pizza and beer, stayed up until midnight and tried an alternative approach.

Once, not expecting much, they replaced a membrane made by Dupont with one from Dow Chemical and left the cell running. To their amazement, it generated four times the previous power. A finger-thick electric cable got so hot that the copper strands began to melt and fuse. It was a great breakthrough.

They unveiled their results in New Mexico at Los Alamos National Laboratory, which was assessing the potential of fuel cells for transport. The head honcho there told them, "I don't think you appreciate what it is you people have done, but you've made the electric vehicle possible."

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New Ham Fiction

Just-published: a book of fiction written by a ham, containing SciFi, space and adventure stories, some with an amateur radio flavor.

The 200-page book is "LOW, LOW TIDE & Collected Stories" by Steve E. McCallum-W2ZBY (ex-K4URX), Lexington, KY—a former newspaperman in Hackensack and Teaneck, NJ; and as K4URX in Key West, FL, and in Louisville and Owensboro, KY.

Amateur radio plays a no-nonsense life-saving role in the title story, "LOW, LOW TIDE," a murder-adventure novella about a ham working as a tide observer in the lower Florida Keys.

In another story, "TO ERR IS HUMAN," a Science Fiction tale, the principal character is a fictitious ham's "artificial intelligence" whose AI organization is planning to take over the United States and eventually the world.

The "Collected Stories" are in three categories: tales of Today, Tomorrow and Days Gone By. The book is available by e-mail directly from the publisher, Xlibris.com; Amazon.com, the online book store; or may be ordered at any book store. Soft cover, \$14.95; hard cover with colorful dust jacket, \$24.95.

Hams who'd like a genuine "Author-signed" edition, may send their copies (about \$1.13 U.S. Postal "Book Rate") to W2ZBY (3209 Tudor Drive Lexington, KY, 40503) and a note telling how they want their name and/or call sign inscribed, and W2ZBY will gladly sign and return it. (No charge, of course.)

W2ZBY, a former shipboard Coast Guard radioman in the Pacific Theater in WWII and now a 50-plus-year ARRL member, got his amateur license in New York City in 1948. Previously he was a reporter for several daily newspapers and the AP. For several years, McCallum served as editor of the former G-E HAM NEWS in Schenectady, NY.

He has taught amateur radio classes for 50 years in radio clubs in Florida and Kentucky and a college level Amateur Radio course in the Florida Keys Community College.

He retired in 1983 from the marine radio and small engine repair business he ran for 13 years in Key West, FL, and moved to Kentucky, where two of his sons live. He began writing fiction a few years ago. W2ZBY now holds the appointment of Public Information Coordinator (PIC), KY Section, as a member of the field staff of the radio amateurs' national organization, the American Radio Relay League (ARRL). <w2zby@juno.com>

By Mike Meltzer -K2SDD. This appeared in the September 1999 edition of the "RAGS Review", the newsletter of the Radio Amateurs of Greater Syracuse, Nita Soper-WB2HGO Editor.

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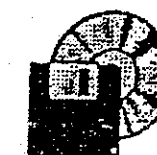
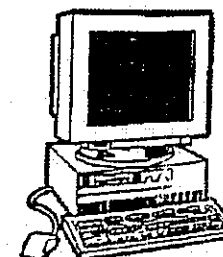
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NEW MEXICO HAMS STAY ON AIR AS MOST OF STATE GOES DARK

New Mexico suffered what could be the largest power loss in the state's history March 18. Amateur Radio operators stood by to fill the communication gap as the outage that resulted from a grass fire left thousands without power.

"We had done our Y2K exercises well, and it paid off," said New Mexico ARRL Section Manager Joe Knight, W5PDY. Knight says smoke from a large grass fire caused the large insulators on a major power line to arc, shutting down the line. Three major power lines from the Public Service Company of New Mexico's Four-Corners Power Plant followed suit. The outage subsequently took out a major power generating unit. "In a domino effect, most of the state of New Mexico, a small part of southern Colorado and part of El Paso, Texas, were out," Knight explained. Thanks to emergency power, hams and repeaters remained operational.

"Needless to say, there were no cell phones, and the 911 system was jammed," Knight said. ARES/RACES was activated and in full operation through both local and linked repeaters throughout the state. "Operators were cautioned to transmit only for emergency traffic in order to conserve our battery power on the linked repeater system. Since the shopping malls, grocery stores, restaurants, filling stations and traffic lights were down, it made for a real Y2K emergency."

Knight says the linked system was able to help keep the public up to date on what was happening. In addition, 21 battery-powered HF stations checked into the New Mexico Roadrunner Traffic Net and were on standby until the power was restored to most of the state. Two broadcast radio stations, KOB AM and KDEF AM, were on the air using emergency power generators. Knight said the New Mexico State Emergency Operations Center and the Albuquerque EOC also were on line using emergency power.

"There were several traffic accidents and a few burglaries, but the hospitals all operated on emergency power," Knight reported. Approximately 1.3 million people were without power for about three or four hours following the outage, which began around 4:30 PM Mountain Time.

In Las Cruces, officials had to halt the state's high school basketball playoffs when the power went out in the arena.

"It was certainly a wakeup call for amateurs in the affected areas," said Knight.

May Program.....

Please join us for the ULTIMATE DX. Bob Magnani K6QXY and Al Ferrera WA6MXI will be our featured speakers on Earth-Moon-Earth (EME) communications, sometimes known as Moon-bounce. Bob and Al operate on 6-meters and will have photos of their antenna arrays. Talk about aluminum and steel sculptures! It is a fascinating program. Plan on attending!

Bob Scolnick K6GEV, SK

Bob passed away at his home in Petaluma on April 12th. Bob had retired from the US Coast Guard after serving for 36 years. He had also been with the San Francisco Water Department. Bob was one of the founders of the Volunteers in Prevention (VIP) program in the Sonoma Unit of the California Department of Forestry and Fire Prevention. Bob was also quite active in ARES and RACES operations in Sonoma County. Bob was 79.

Bob's family includes his wife Jean, son Robert, Jr., and daughter Joyce. He was also the proud grandpa of Rebecca Scolnick.

Contributions in Bob's memory may be made to Hospice of Petaluma, 416 Payran St, Petaluma, CA 94952.

FCC says Generals not allowed in Advanced subbands

The FCC says newly upgraded General class licensees may not operate in the current Advanced class subbands under the new amateur rules. Bill Cross, W3TN, of the FCC's Public Safety and Private Wireless Division notes that no privileges changed for any license class.

The Advanced class license continues to exist under restructuring, which became effective April 15, although the FCC no longer accepts applications for Novice or Advanced class licenses. Current Generals do not earn Advanced class privileges until they upgrade to Amateur Extra class, when they earn both Advanced and Extra privileges.

The FCC also says General class operators may hold only Group C (1x3) or Group D (2x3) call signs, as it was under the old rules. Generals remain ineligible to apply for or hold Group B (2x2) call signs.

Newly upgraded licensees were cautioned to check the revised Part 97 rules carefully to make sure they're not operating beyond their privileges. FCC Part 97 rules are available on the ARRL Web site at <http://www.arrl.org/field/regulations/news/part97/>.

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