

SCCARA-GRAM



Santa Clara County Amateur Radio Association

Volume 21, Number 4

April 2005



President's Prose

Thanks to Emily W0EEC for an excellent presentation on satellite communications for our March general meeting. The project Oscar presentation led up to an exciting session in the parking lot as a satellite passed overhead. We were able to make contact via satellite with stations across the continent they were as far a way s New Orleans, Iowa, Seattle and Calgary. An other highlight for me was the club singing Happy Birth on my 71st as we waited for the satellite. By the way, Emily's web page is www.planetemily.com. The project Oscar web address is www.projectoacar.net.

We are relived at the good news that the electronic flea market will continue. I wish to thank the members of ASVARO for their difficult negotiations to bring the flea market to De Anza College.

Sccara is planning to have a flea market booth in June to sell equipment that is either surplus or donated to the club. This will be a good chance for members to unburden themselves of some equipment you no longer need or use. See me about arrangements for getting the ham gear to our sales table. We will also use this as an opportunity to publicize our beautiful Mt. Madonna field location and invite all hams to join us. Come out and help us on June 11. July 9 will be our turn to host the whole flea market as our annual fund raiser.

I have learned Don Steinbach AE6PM last week had triple bypass heart surgery. We all would like to wish him a seedy and healthful recovery.

The speaker for our meeting for our 7:30 April 11th meeting will be James Bennett from Pacific Antenna. He will talk about portable operating, including equipment, antennas, power supplies and locations. See you all at the meting.

73, Clark, KE6KXO



For Sale

Kenwood TS520 HF 10-80 meters: \$200
(SCCARA owned radio)

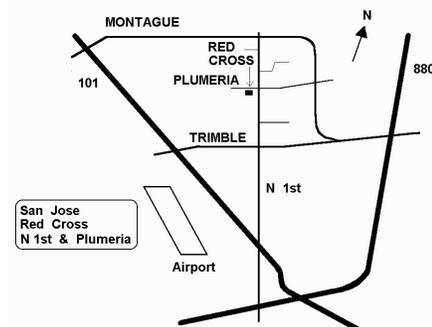
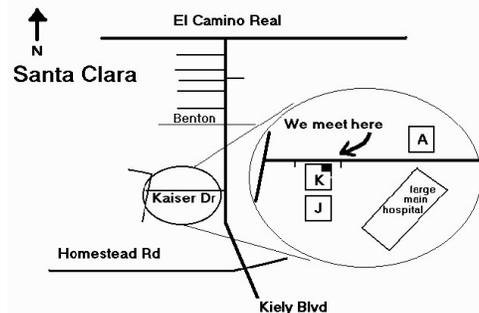
Contact Don Village, K6PBQ, 408 263-2789

Calendar

- 4/11 **SCCARA General Meeting**
- 4/18 **SCCARA Board Meeting** (San Jose Red Cross, 7:30p, all are welcome)
- 5/9 **SCCARA General Meeting** – Dinner meeting

General Meeting:

Day: Monday, April 11, 2005
Time: 7:30 PM
Place: Kaiser Santa Clara, Bld K, Rm 1
Featuring: James Bennett, portable operating



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The deadline for articles is the last Monday of the month.

SCCARA was formed in 1921 and became a non-profit corporation in 1947. SCCARA is an affiliate of the American Radio Relay League (ARRL). The club station is W6UW.

Web page: <http://www.qsl.net/sccara>.

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SCCARA REPEATERS

SCCARA owns and operates two repeaters under the call W6UU:

2 meter: 146.985 - PL 114.8
70 cm: 442.425 + PL 107.2

Phone auto-dial and auto-patch is available. The two meter repeater is located at Eagle Rock near Alum Rock Park in the foothills of east San Jose. The 70 cm repeater and N0ARY BBS is located at the Regional Medical Center (formerly Alexian), east of downtown San Jose, north of 280 and 101.

SCCARA NETS

On our two meter repeater: Mondays at 7:30 PM, (not the second monday--our meeting night). Coordinator: Don K6PBQ. On ten meters, 28.385 MHz USB, Thursdays at 8:00 PM. Net control: Wally KA6YMD. Visitors welcome.

N0ARY PACKET BBS

SCCARA hosts the packet BBS N0ARY (San Jose). User ports: 144.93 (1200 baud), 433.37 (9600 baud), telephone 408 259-8497, internet (by registration only, get info by sending e-mail to: info@n0ary.org). Sysop: Gary WB6YRU

TELEPHONE NUMBERS

SCCARA contact Clark KE6KXO:	408 262-9334
ARRL/VEC Silicon Valley VE group,	
Morris Jones, AD6ZH:	408 507-4698

Super transistor

There is some interesting research coming out of the engineering department at UCSC (University of California Santa Cruz). It seems some scientists there have developed a technique for manufacturing transistors that amplify at substantial power levels with astonishing low heat generation.

As some of you may know, UCSC started an engineering department in the 1980's to better participate in the electronic and computer revolution. They've recently hired some new hot-shot professors who are eager to make a name for themselves and UCSC is equally eager to make a name for their Engineering department. So, they're putting money and resources into any research that shows any promise at all, almost no matter how far fetched. Apparently, it has just paid off big time.

This new transistor isn't really new, it's still a normal transistor, but it utilizes a quantum tunneling property (something like tunnel diodes) that has the effect of duplicating any current flowing across a junction, but in the opposite direction. Effectively, this almost completely compensates for the normal heat generation in a power transistor.

The quantum tunneling property comes in when you try to measure this reverse current—you can't—it's not really there! At least, not exactly. You can't generate a current out of nothing, of course. However, just like virtual particles can pop in and out of existence if the process happens fast enough and over a small enough space, this backward current can show up across a junction if it the junction narrow enough. This backward current shows up then disappears within the limits set by the Heisenberg uncertainty limit. The trick is getting the junction narrow enough for this effect to occur. That's where this new technique comes in. The transistor junction is laid down as a single layer of atoms. (Modern chip technology has finally made this possible.)

The reason this reverse quantum current is important is that it effectively cancels out the normal current flowing across the junction—but only right at the junction. Outside of that immediate area, the current is normal. The connections to the junction have to be much closer than normal—which is another problem they had to solve.

When their prototype transistor was tested as an amplifier, it generated practically no excess heat.. They were able to get 45 watts out of a transistor no bigger than the popular 2N2222 small signal transistor, and that amount of power was limited only by the test bed. When a new test bed was made (for higher power), they measured a mere 7.8 mW of waste heat coming out of the transistor with an astonishing 250 watts of signal output! At this rate, a small signal transistor made with this technique should be able to replace the power amplifier of commercial broadcast transmitter with not much more than a little aluminum heat sink that a child could hold in her hand!

One of the researchers said this transistor does for amplification what superconductors can do for carrying current with no resistance. And as if that weren't enough, the very small junction of this transistor is ideally suited for very high frequencies.

However, don't expect to see high power cell phones or amateur handhelds any time soon. There are still a couple of bugs to work out. For one thing, it is very difficult to attach conductors capable of carrying large signals to a tiny transistor. One idea is to use a superconductor at the transistor itself, then connect to a normal conductor later. The problem there is that we don't have superconductors that operate at high enough temperatures, (this quantum current effect disappears if the junction temperature falls below 57 kelvins). Another difficulty is the practical matter of the power source. This transistor may be able to put out a high power signal very efficiently, but that power has to come from somewhere. Small batteries simply aren't up to it... unless you want to carry around a car battery with your handheld.

It may take a while for them to work out these kinks, and develop a way to mass-produce transistors with these tiny quantum junctions. But the future does indeed look very interesting!

73, Gary Mitchell, WB6YRU April Fools! ☺

Meeting Minutes

General Meeting, March 14, 2005



Attendance: 230 including two non-members, one being the evening's Speaker

Members present (in alphabetical order): Donald R Apte KK6MX, Barbara Britten KD6QEI, Wally Britten KA6YMD, Lloyd Devaughns KD6FJI, Jeannie Felix KG6YOR, Robert L Forster N6PCQ, Clarence Garcia KH6HMI, Del Harbold K6JPX, Royal Metzger K6VIP, Virginia Metzger K6IUU, Gary Mitchell WB6YRU, David Paul AE6MV, Scott Petersen KG6SPF, Tom Root KF6NEW, Gwen Steirer KF60TD, Lou Steirer WA6QYS, Fred Townsend AE6QL, Don Village K6PBQ.

Non-members present: Cheryl Salamone and the night/Es speaker, Emily Clarke W0EEC.

Setting up the presentation display system took until 19:42.

The President, Clark Murphy, deferred to one of our members, Jeannie Felix, who announced that she now has an Amateur radio call sign - KG6YOR. Congratulations were offered, along with applause.

Clark asked about the status of the 70cm repeater, as he had heard a report that it is not functioning. Wally replied that it was working fine, and he had recently used its AutoPatch.

Clark then called for Announcements.

Announcements/Information

Lou Steirer said that for updated information about the Flea Market, check the website. July 9 is the date for SCCARA, October 8 is SVECS. The next SVECS meeting is 4/30, at the VFW hall at Monroe & Franklin. Lou also told of a DEA team finding a field of marijuana. There was so much that they couldn't cart it off, so they decided to burn it. But while it was burning, a large flock of terns flew by, and flew through the smoke. The chief DEA Investigator noted that they every single bird was affected by the smoke ù there was not one tern unstoned.

Clark passed out flyers for the HamFeast to be held on the second Tuesdays of the month, starting in April, at Angelino's restaurant, Winchester & Williams: 3132 Williams Road, 408-243-6095, AngelinosRest.com. Talk-in will be on W6UU 2M.

Clark introduced W0EEC, Emily Clarke, VP of OSCAR, Board member and AMSAT Coordinator & Director of Development, speaking about Amateur Satellite Radio:

Project Oscar began in 1957, first meeting at Foothill College, then at Harry's Hofbrau. Satellites are great for Amateur radio, much better than repeaters. Satellites are better than repeaters on tops of mountains, and there are some places where there aren't mountains,

like Kansas. An 11-year-old new ham made 225 contacts on satellites last year. Satellite stations aren't necessarily expensive—a really good amateur satellite station costs about \$500. Imagination is more important than knowledge - Albert Einstein.

There are two types of repeaters, an FM repeater and a SSB linear transponder. The average satellite uses a 1/2 watt transmitter, the most powerful uses 16 watts.

This entire presentation is on Emily's website, www.planetemily.com. (At this point, your Secretary stopped taking detailed notes, because you can download the whole presentation if you missed the meeting and want to know what you missed). Other web sites of interest are www.space-track.org, where you can get orbital elements for amateur radio satellites, and www.amsat.org, where you can join AMSAT for only \$39/year. Sputnik flew in 1957; Oscar #1 flew in 1961!

At 20:58 we went outside where some of us made contacts from New Orleans to Calgary, Ontario, using Emily's gear. Everyone had a great time.

Back inside, the Secretary asked for corrections to the minutes of February's meeting but none were forthcoming.

The meeting was adjourned at 21:50

Upcoming SCCARA Activities:

- The April General Meeting will be 4/11/05, 19:30 at the Santa Clara Kaiser Hospital, Bldg K.
- The April Board Meeting will be 4/18/05 at 19:30 at the San Jose Red Cross HQ.

- The May General Meeting will be 5/9/05, 18:30 at Angelino's (Italian) Restaurant (has Pizza too), 3132 Williams Road at Winchester Blvd, 408-243-6095, AngelinosRest.com

David Paul, AE6MV, Secretary

Board Meeting, March 21, 2005



President Clark Murphy, KE6KXO, called the meeting to order at 19:43:01. A quorum was present.

Attendees: Clark Murphy, KE6KXO, President; Lloyd DeVaughns, KD6FJI, Treasurer; Don Village, K6PBQ, Director and Station Trustee; Lou Steirer, WA6QYS, Director; Wally Britten, KA6YMD, Director; Gary Mitchell, WB6YRU, Editor and BBS Chairman; David Paul, AE6MV, Secretary and Gwen Steirer, KF60TD, XYL

President Clark Murphy welcomed everyone to the meeting.

The Secretary asked for any changes or corrections to last Month's Board minutes, none were forthcoming.

The Treasurer reported that the Club Checking Account balance is \$2093.20 and Savings is \$1934.28, for a total of \$4027.48.

Repeater Chairman Wally Britten reported that the 2M autopatch speed dialer is not connecting to the phone line. Wally also reported that Santa Rosa's repeater is sometimes heard over our repeater.

BBS Chairman Gary Mitchell reported that the BBS went down

again, was reset and is now okay. He is talking with Bob Arasmith, N0ARY about changes to the software/programming. Perhaps a radio link could be set up to replace one of the phone lines.

Old Business

Field Day: Fred Townsend is expected to tow the trailer up to Mount Madonna.

Don Village reminded everyone that we will to operate the Club Station on the fourth Saturday of March, 3/26/05. Clark will open the building and station at 10:00, Don Village will operate 10:00-13:00, David Paul work 11:00-14:00, Lou Steirer will arrive in the afternoon and lock up the station.

The new QSL cards are not yet available.

There may be some way to set up a special event station for the San Jose Grand Prix in July. - no action.

We still have the Heathkit Linear the needs to be tested and then sold. Perhaps Red Vernier would do the testing for us.

We need to finish cleaning the Club locker, but we need to wait until after the rains.

Trailer maintenance is needed: it needs to be sanded and painted, but we need to wait until after the rains.

It would be good to have another radio clinic, but not to have food at the same time, because that didn't work out too well last time.

Gwen's idea of having another meeting with food was brought up, with the decision that the May General Meeting will be a Pizza/Italian Food meeting, details appended.

New Business

Lou Steirer moved and Don Village seconded that Clark Murphy be repaid \$20 that he spent for a Video Cable for the club meetings. The motion passed unanimously.

Lou Steirer reported that SVARO met last Tuesday, and a firm answer is not yet available regarding the site of this year's Flea Markets. The dates are set, though: 4/9 Palo Alto Red Cross, 5/14 PAARA (Palo Alto), 6/11 SPARK (SPARC, Southern Peninsula), 7/9 SCCARA, 8/13 SPECS, Southern Peninsula, 9/10 FARS (Foothill-Cupertino), 10/8 SVECS.

Lou Steirer reported that the next SVECS (Breakfast) Meeting will be held 4/30 at the VFW, Monroe & Franklin, Santa Clara, a couple of blocks from the usual location.

Gary Mitchell brought up the Property List- he spent the time to check what's at the locker, and passed out property lists showing the items (marked with an asterisk) that he thinks we could do without, and should sell or auction. After much discussion, Lou Steirer moved and Don Village seconded the motion that those items marked with an asterisk be sold: the motion passed unanimously. It was discussed that we should set up a table at the June Flea Market to both sell some of the items and pass out information about our Field Day at Mount Madonna.

No further business was brought up.

Lou Steirer moved that the meeting be adjourned, Wally seconded and everyone agreed. The meeting was adjourned at

21:43 or so.

Upcoming Meetings

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David Paul, AE6MV, Secretary

Radio Room

The SCCARA Radio Room at Santa Clara County Red Cross HQ was open and operating on Saturday 4/26 from about 09:00 to 15:00 local. We had a lot of fun, and some folks requested/suggested that we do this regularly. I have proposed the last Saturday of each month (except June of course), and we'll see what the Directors think. So mark your calendar for Saturday 4/30, and let's see if the Directors agree.

73, AE6MV

ARRL News

From *The ARRL Letter*, March 11, 2005

BPL RECONSIDERATION PETITIONS FILED; LEAGUE CEO SAYS COURT APPEAL PROBABLE

More than a dozen petitions for reconsideration have been filed in the wake of the FCC's October 14, 2004, Report and Order (R&O) adopting new Part 15 rules governing broadband over power line (BPL) deployment. They include the ARRL's February 7 Petition for Reconsideration <http://www.arrl.org/announce/regulatory/et04-37/recon_petition/>. ARRL CEO David Sumner, K1ZZ, has expressed little confidence that the FCC will make any substantive rule changes in response to any arguments put forth in the petitions for reconsideration. In a March 1 interview with Marc Strassman of Broadband over Power Line World (BPLW) <<http://www.etopiamedia.net/bplw/audio/sumner2.0.wma>>, Sumner predicted that the BPL proceeding ultimately will wind up in court.

"Realistically, do we expect dramatic changes in the Commission's rules as a result of the reconsideration petitions?" Sumner asked in concluding the interview. "Probably not. So we're probably looking to the Court of Appeals before all the dust settles."

In his interview with Strassman, Sumner discussed the League's petition, which calls on the FCC to "reconsider, rescind and restudy" its unanimous adoption of the new Part 15 BPL rules last October.

Strassman also interviewed Associate Counsel Brett Kilbourne of the United Power Line Council (UPLC), an organization promoting BPL development that also filed a reconsideration petition. Among other things, Kilbourne conceded to BPLW that

Amateur Radio complaints and concerns raised about RFI from BPL could hinder BPL rollouts.

"Yeah, my concern is that you're going to have--whenever there's a deployment--people complaining automatically," Kilbourne said. "To the extent that does happen, that's going to discourage folks from getting into this phase, I would think."

In its reconsideration petition, the UPLC calls on the FCC to not require 30-day advance notice of BPL operations. It also wants the FCC to extend the 18-month transition period that applies to marketing or installation of equipment.

The various petitions for reconsideration came from BPL industry groups and proponents as well as from the League and other organizations and individuals concerned about BPL's interference potential. All petitions for reconsideration filed in the two BPL-related proceedings--ET Docket 03-104 and ET Docket 04-37--are available for viewing via the FCC's Electronic Comment Filing System (ECFS) <<http://www.fcc.gov/cgb/ecfs/>>.

Interested parties must file opposition comments ("oppositions") to the petitions by March 23, which is 15 days of the March 8 public notice of the petitions in the Federal Register. A 10-day period to file replies to oppositions follows. Those wishing to file oppositions to specific petitions may use the ECFS to do so, but comments supporting one petition or another are not welcome, ARRL General Counsel Chris Imlay, W3KD, points out.

"Individual radio amateurs are welcome to file oppositions on any petition with which they have specific issues," he said, adding that commenters should support their points with facts and statements. "All statements should be specific to one or more arguments in a reconsideration petition with which the person filing an opposition disagrees," Imlay explained. "They should not simply say, 'I oppose this petition.'"

Among other reconsideration petitions were those filed on behalf of BPL manufacturers Amperion and Current Technologies; Donald G. Everist, a professional engineer; the National Antenna Consortium; Aeronautical Radio Inc; the American Petroleum Institute; the Association for Maximum Service Television; G. Scott Davis, N3FJP; W. Lee McVey, W6EM, a professional engineer; Steven E. Matda, KE4MOB, and Cortland E. Richmond, KA5S.

Imlay says the ARRL is reviewing all petitions for reconsideration filed in the BPL proceedings to see if any oppositions from the League will be required.

From *The ARRL Letter*, March 25, 2005

LARGEST-EVER MASS CASUALTY EXERCISE WILL PUT AMATEUR RADIO UNDER SCRUTINY

Amateur Radio Emergency Service (ARES) members in Connecticut and elsewhere in the Northeast are poised to take part in what's being characterized as the most comprehensive terrorism response exercise ever conducted in the US. Sponsored by the US Department of Homeland Security as a realistic test of the nation's homeland security system, the exercise--TOPOFF 3--will run Monday through Friday, April 4-8. Approximately 100 ARES volunteers primarily will support the American Red Cross. Connecticut Section Emergency Coordinator Chuck Rexroad, AB1CR, says that while governmental agencies will comprise the majority of those taking part in TOPOFF 3, Amateur Radio's cooperation with and assistance to the American Red Cross will be under scrutiny.

"We've been assigned evaluators and judges who will be watching what we do and how we do it to determine our suitability for such things in the future," he explained. Rexroad says at TOPOFF 2 a couple of years ago, evaluators pointed to massive communication problems that Amateur Radio could have helped to resolve, Rexroad said. "So we do hope that this will show that we are very relevant in responding to a disaster situation."

The TOPOFF 3 scenario will depict a complex terrorist campaign beginning in Connecticut and New Jersey and leading to national and international response that will include Canada--where the exercise will be known as "TRIPLE PLAY"--and the United Kingdom--where it will be called "ATLANTIC BLUE."

The only nongovernmental organization with a formal role in the recently released National Disaster Plan, the Red Cross has main responsibility for mass care. Rexroad anticipates that ARES will be providing its traditional "backbone" communication support among Red Cross mobile feeding stations, the organization's temporary stationary facilities and other Red Cross units. ARES also will be ready to provide back-up communication support the Connecticut Office of Emergency Management, he said.

Rexroad and Connecticut Section Manager Betsey Doane, K1EIC, have been gearing up for TOPOFF 3 for more than a year. Both hope the ARES role in the drill will provide graduates of the ARRL Amateur Radio Emergency Communications courses a chance to put into practice what they've learned--on a national stage.

With the drill just days away, Rexroad said he still needs volunteers. "People who can staff a permanent position, people who can set up a temporary position, people who can do shadowing and--the big one we're missing right now--people who can temporarily put a radio in a mobile Red Cross van," he explained. "The sections surrounding Connecticut have all offered to provide assistance, and we're looking forward to support from Eastern and Western Massachusetts, Rhode Island and possibly even some people from New York." Rexroad has been making the rounds to conduct briefing sessions prior to the drill.

TOPOFF 3 ARES volunteers must be comfortable with a high-security environment, realistic-looking "injuries" and military aircraft flying overhead, Rexroad says. In terms of equipment, he says most operation will take place on VHF and UHF, with an HF link to the National Traffic System only. Headsets are advisable because of anticipated high noise levels. Volunteers will wear matching vests that say "Radio Communications" on the back and "ARES" on the front.

Due to security requirements, all volunteers must register with ARES in advance. Information on the exercise and how to volunteer is on the Connecticut ARES Web site <<http://www.ctares.org>>.

BPL INHERENTLY FLAWED, LEAGUE CEO TELLS BROADBAND ALTERNATIVES CONFERENCE

ARRL Chief Executive Officer David Sumner, K1ZZ, told a New York City conference on "Alternative Broadband Platforms" March 18 that broadband over power line (BPL) has "an inherent technical flaw"--interference potential--that cannot be completely nor inexpensively eliminated. He also told the gathering that no BPL system operator can guarantee that its system will always work or that it will be allowed to operate. Sumner said the problem is simple: Power lines were not designed to carry broadband signals, so they can't do it very well.

"BPL is not a radio spectrum user. It is a radio spectrum polluter," Sumner told the Columbia Institute for Tele-Information (CITI) workshop, "Alternative Broadband Platforms: Can They Compete With Fiber Optics? Where?" at Columbia University. "And if the pollution causes harmful interference to an authorized radio station, the BPL system operator has the absolute burden of fixing it--even if that means shutting off the system."

Sumner asked his audience to keep this unique shortcoming of BPL in mind as they compare and consider the alternative broadband platforms discussed. The 70 conference participants included BPL manufacturers and proponents as well as individuals involved in some aspect of broadband telecommunications, members of the academic community and students.

Directed by Eli Noam, KE2PN, CITI held its first workshop on BPL--then called PLC--in February 2002 and has held several more since. This month's event was the first in which ARRL was invited to participate. The conference's entire morning session was devoted to BPL.

In addition to the question of interference, Sumner also raised the legal obstacles confronting BPL. "I think you can see--or hear--why we radio amateurs are concerned," he said after showing the audience a video clip of BPL interference recorded in Briarcliff Manor, New York, last December. "But anyone who is thinking about investing in BPL should also be concerned, because the interference you just heard is illegal," he continued. "It is prohibited by the international radio regulations of the International Telecommunication Union, which the United States must observe as a treaty obligation. It is prohibited by the Communications Act. It is prohibited by the FCC's own rules."

Sumner also spoke about BPL interference complaints involving pilot projects in Iowa and Texas.

The emission limits the FCC has applied to BPL originally were established with intermittent, narrowband, point-source radiators in mind, Sumner explained. "Applying them to a high duty cycle, broadband emitter that is attached to a long conductor such as a power line is like saying that there's no difference between the noise of a helicopter that goes over your house once a day and one that hovers over your back yard all the time," Sumner said. "You wouldn't complain about the first, but you'd raise quite a fuss about the second."

Most workshop participants, Sumner said, appeared to believe that fiber optic cable close by or to the home--or a combination of fiber and coaxial cable--would be most likely to provide a broadband pipeline in 10 years. "They also liked wireless because of mobility and portability," he added. When asked at the end of the day who would invest in BPL, "only two or three hands went up."

Sumner's prepared remarks plus additional material relating to his CITI presentation are available on the ARRL Web site <<http://www.arrl.org/tis/info/HTML/plc/presentations.html>>.

From *The ARRL Letter*, April 1, 2005

AMATEUR RADIO LINKS EARTHQUAKE-STRICKEN ISLAND WITH OUTSIDE WORLD

Working under harsh conditions, Indonesian Amateur Radio Emergency Service (ARES) volunteers this week established VHF links between earthquake-stricken Nias Island and northern Sumatra. Nias Island was hit March 28 by nearby magnitude 8.2 and 8.7 underwater earthquakes. More than 1000 people are reported to have died as a result of the earthquakes. The tremors

affected some of the same areas still recovering from the December earthquake and tsunami. Although officials and residents remained on alert for tsunamis this week, none occurred. A magnitude 6.3 aftershock occurred in the vicinity March 30.

Organization of Amateur Radio for Indonesia (ORARI) headquarters in Jakarta this week called on its members to be ready to assist. An ORARI team deployed by air to Nias Island March 29 set up "zulu" (emergency) station YB6ZAH in Gunung Sitoli, the island's largest city. YB6ZAH has been in contact with the ORARI District 6 command post in Medan, North Sumatra. The ORARI team already had experience supporting communication following the December 2004 tsunami that claimed an estimated 300,000 lives in South Asia.

In the earthquake's immediate aftermath, ORARI ARES members reportedly were on duty with little or no food to eat, although they did have drinking water. At that point, many victims had not yet been evacuated, and some remained trapped in the debris.

ORARI team members include Zulkarman Syafrin, YC6PLG, Herman Rangkuti, YC6IQ, and Soejat Harto, YB6HB--a medical doctor. Syafrin reports that the earthquake damaged the power, telecommunication and transportation infrastructure or took them out altogether on Nias Island. Buildings in Gunung Sitoli were reportedly flattened and roads severely damaged or impassable.

In the early going, the team was using portable generators and had to restrict operation to every two hours to conserve scarce fuel. TELKOM, the Indonesian Department of Public Telecommunication, has since provided the ORARI ARES team with a bigger generator, and the operation has relocated to the TELKOM building, where fuel is no longer a problem. ORARI District 6 plans to supply more logistical and radio equipment, while Ady Susanto, YB6VK, was preparing a set of solar cells for the ORARI ARES team's use in Gunung Sitoli.

New Mexico radio amateur Earl Campbell, N8TV, now working with the International Red Cross in Banda Aceh on post-tsunami relief, plans to set up an emergency Amateur Radio station on Simeulue Island, which also was affected by the earthquakes. Campbell's IT team reportedly is headed for Nias Island to set up a satellite Internet connection and to support the ARES team in Gunung Sitoli.

Updates on ham radio earthquake relief activity in Indonesia are available on the AB2QV Web site <<http://www.qsl.net/ab2qv/nias.htm>>.--Wyn Purwinto, AB2QV

AMBIENT, FCC FAILING TO ADDRESS NEW YORK BPL COMPLAINTS, ARRL CHARGES

The ARRL has charged BPL equipment maker Ambient Corporation and the FCC with being unwilling or unable to effectively deal with harmful interference stemming from a New York BPL pilot project. The League also asked the Commission for the fourth time to shut down Ambient's Briarcliff Manor "non-compliant system without further delay" until Ambient addresses interference complaints. The League's latest salvo in the Briarcliff Manor BPL battle was in response to a February 10 letter from Bruce Franca, deputy chief of the FCC Office of Engineering and Technology (OET). Franca's letter concluded that FCC measurements in response to Amateur Radio complaints of harmful interference showed no changes were required to the BPL system.

"The Commission's failure to conduct a thorough investigation of this matter, and the tenor of your February 10, 2005, letter, lead to speculation that the Commission is really not interested in

finding the interference that exists at Briarcliff Manor or at other BPL test sites or in enforcing the Part 15 rules," the ARRL responded. "Ambient's apparent tactic of making changes in the system after receiving interference complaints and then denying that the interference problems complained of ever existed is not helpful." Nor did it help, the League's filing continued, that Ambient's engineer refused last December to participate with ARRL in a demonstration of the interference. The League said it's no longer possible for the Commission or Ambient "to deny the ongoing, serious interference problems at Briarcliff Manor."

The League pointed out that a member of the FCC Enforcement Bureau's staff personally witnessed the interference from the Briarcliff Manor system at two locations that were the focus of complaints last December. Franca's February letter failed to acknowledge video documenting the visit and uploaded to the League's Web site, even though the ARRL has provided him with the URL <<http://www.arrl.org/tis/info/HTML/plc/aud-vid.html>>. At that time, ARRL Laboratory staff members took measurements at various points in the system to document problems.

While subsequent ARRL measurements did turn up a reduction of BPL emissions in some areas, emissions that would "substantially preclude Amateur communications" remain, the ARRL said, and along Dalmeny Road, interference is still at levels essentially unchanged from those measured last December and appear throughout the 20-meter band.

ARRL Laboratory staff members most recently visited Briarcliff Manor on March 11, and the League's filing to the FCC and Ambient March 17 included a summary of their measurements and observations. At one point, RF emission levels from the BPL system exceeded the FCC's Part 15 permitted levels by up to 20 dB, the League said.

Elsewhere, emissions along Dalmeny Road--which the FCC did not revisit earlier this year--"continue to contribute 14 dB of degradation of ambient noise" on 20 meters, the ARRL said. BPL interference also has been reported on 80 meters. The ARRL further faulted the FCC for not contacting the complainant, Westchester County ARES Emergency Coordinator Alan Crosswell, N2YGK, who routinely travels the roads in question and has experienced interference. Crosswell, who's also Westchester County RACES Officer, has documented BPL interference, complaints and related information on his "BPL in Briarcliff Manor" Web site <<http://www.columbia.edu/~alan/bpl/>>.

The League said the FCC's continued refusal to shut down the Ambient Corporation's BPL system in Briarcliff Manor "highlights the completely arbitrary and baseless findings in the Commission's Report and Order in Docket 04-37, adopted last October 14."

In early January, the ARRL questioned Ambient's veracity and technical competence and criticized the FCC for not shutting the system down. The League requested then that the FCC rescind Ambient's WD2XEQ Part 5 Experimental license for the BPL pilot project.

The latest League filing is on the ARRL Web site <<http://www.arrl.org/tis/info/HTML/plc/files/BPL-BCM-Reply2Franca031705.pdf>>

FCC ADOPTS RULE CHANGES FOR "SMART RADIOS"

The FCC has released a Report and Order (R&O) on cognitive or "smart radio" systems. In its 42-page R&O, "Facilitating Opportunities for Flexible, Efficient, and Reliable Spectrum Use Employing Cognitive Radio Technologies" (ET Docket 03-108),

the Commission declined to adopt any new regulations for Amateur Radio transceivers or for digital-to-analog (D/A) converters "at this time." The ARRL and the National Public Safety Telecommunications Council had commented earlier on the impracticality of incorporating hardware features to prevent out-of-band transmissions. The League, AMSAT-NA and TAPR also opposed regulating the marketing of high-speed D/A converters as burdensome, more costly to consumers and unnecessary because the devices don't pose a risk of interference.

"No parties have provided any information that shows that software programmable amateur transceivers or high-speed D/A converters present any significantly greater risk of interference to authorized radio services than hardware radios," the FCC concluded in its R&O. The Commission went on to note that "certain unauthorized modifications of amateur transmitters are unlawful" and that it may revisit the issues "if misuse of such devices results in significant interference to authorized spectrum users."

In its December 2003 Notice of Proposed Rule Making (NPRM) leading up to this month's R&O, the FCC had proposed exempting manufactured software defined radios (SDRs) designed to operate solely in amateur bands from any mandatory declaration and certification requirements, provided the equipment incorporated hardware features to prevent operation outside of amateur bands. The Commission also had sought comment on the need to restrict the mass marketing of D/A converters "that could be diverted for use as radio transmitters."

In its comments last May, the ARRL sympathized with the Commission's concerns about out-of-band operation and expressed its appreciation for the FCC's "sensitivity to the need to encourage, rather than discourage, amateur experimentation and innovation." But, the League characterized the FCC's fears as "overstated."

The Commission said its R&O, released March 11, is intended to "facilitate continued growth in the deployment of radio equipment employing cognitive radio technologies and make possible a full realization of their potential benefits." The hope is that cognitive radios will allow more-efficient use of the radio spectrum.

"Given their technical and operational flexibility, smart radios make possible the improved use of vacant spectrum channels--that is, spectrum that may be available in a specific frequency range at a particular geographic location or during a particular period of time--spectrum that would otherwise go unused," the FCC explained in a Public Notice. "Smart radios have the technical capability to adapt their use of spectrum in response to information external to the radio."

ARRL participates in international bodies that are currently working toward establishing standards for SDRs and cognitive radios. These include International Telecommunication Union (ITU) Working Parties 8A (Land Mobile Service, excluding IMT-2000; Amateur and Amateur-Satellite service) and 8F (IMT-2000 and systems beyond IMT-2000).

The R&O is available on the FCC Web site <http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-57A1.doc>

Packet Pieces

Downloaded from the packet network:

Date: 18 Feb 2004 09:06
From: W1GMF@W1GMF
To: HUMOR@USA
Subject: HUMOR FOR TODAY 0209

Two elderly sisters donated \$5 to a charity and, to their surprise, won tickets to a football game. Since they had never seen a live football game before, Madge thought the free tickets would provide an excellent opportunity for doing so.

"I think so, too," said Mabel. "Let's go!"

They soon found themselves high in a noisy stadium overlooking a large, grassy expanse. They watched the kickoff and the seemingly endless back-and-forth struggles that comprised the scoreless first half.

They enjoyed the band music and cheerleader performance that followed. Then came the second half. When the teams lined up for the second-half kickoff, Madge nudged her sister.

"I guess we can go home now, Mabel," she said. "This is where we came in."

Last Laugh

One day a Pirate and a bartender were talking to each other in a bar. The Bartender asked the pirate "Where did ya get that peg leg from?"

The Pirate responded " We were sailing the seas when a big ol' shark came up to me while I was swimmin' and bit off me leg."

Later the Bartender asked "Where did you get that hook then?"

The pirate responded "Well, me crew and I were in a battle and it got cut through the bone."

"Then where did ya get the eye patch from?" the bartender then asked.

The pirate said " In a harbor I looked at a gull flying over head and it pottied right in me eye."

The bartender was puzzled and asked the pirate, "How would that make you need an eye patch?"

"First day with the hook."

Date: 18 Feb 2004 09:07
From: W1GMF@W1GMF
To: HUMOR@USA
Subject: Mom's Dictionary

AIRPLANE: What Mom impersonates to get a one-year-old to eat strained beets.

ALIEN: What Mom would suspect had invaded her house if she spotted a child-sized creature cleaning up after itself.

APPLE: Nutritious lunch-time dessert which children will trade for cupcakes.

BATHROOM: a room used by the entire family, believed by all (except Mom) to be self-cleaning.

"BECAUSE": Mom's reason for having kids do things which can't be explained logically.

BED AND BREAKFAST: Two things the kids will never make for themselves.

CARPET: Expensive floor covering used to catch spills and clean mud off shoes.

CAR POOL: Complicated system of transportation where Mom always winds up going the furthest, with the biggest bunch of kids, who have had the most sugar.

CHINA: Legendary nation reportedly populated by children who love leftover vegetables.

COOK: 1) Act of preparing food for consumption. 2) Mom's other name.

COUCH POTATO: What Mom finds under the sofa cushions after the kids eat dinner.

DATE: Infrequent outings with Dad where Mom can enjoy worrying about the kids in a different setting.

DUST: Insidious interloping particles of evil that turn a home into a battle zone.

EAR: A place where kids store dirt.

EAT: What kids do between meals, but not at them.

ENERGY: Element of vitality kids always have an oversupply of until asked to do something.

"EXCUSE ME": One of Mom's favorite phrases, reportedly used in past times by children.

EYE: The highly susceptible optic nerve which, according to Mom, can be "put out" by anything from a suction-arrow to a carelessly handled butter knife.

FOOD: The response Mom usually gives in answer to the question "What's for dinner tonight?"

GARBAGE: A collection of refuse items, the taking out of which Mom assigns to a different family member each week, then winds up doing herself.

GENIUSES: Amazingly, all of Mom's kids.

GUM: Adhesive for the hair.

HAMPER: A wicker container with a lid, usually surrounded by, but not containing, dirty clothing.

HANDI-WIPES: Pants, shirt-sleeves, drapes, etc.

HANDS: Body appendages which must be scrubbed raw with volcanic soap and sterilized in boiling water immediately prior to consumption of the evening meal.

ICE: Cubes of frozen water which would be found in small plastic tray if kids or husbands ever filled the things instead of putting them back in the freezer empty.

INSIDE: That place that will suddenly look attractive to kids

once Mom has spent a minimum of half an hour getting them ready to go outside.

"I SAID SO": Reason enough, according to Mom.

JACKPOT: When all the kids stay at friends' homes for the night.

JOY RIDE: Going somewhere without the kids.

JUNK: Dad's stuff.

KETCHUP: The sea of tomato-based goop kids use to drown the dish that Mom spent hours cooking and years perfecting to get the seasoning just right.

KISS: Mom medicine.

Emergency operating/preparedness: WA6QYS
FM (VHF/UHF, repeaters): WA6VJY
HF operating techniques (SSB, CW): WB6EMR, K6PBQ
Classes/license upgrading: W6ACW
Legal/FCC rules: WB6YRU
SCCARA (club inner workings):
K6PBQ, WA6VJY, WB6YRU, WA6QYS
Children's Discovery Museum, volunteer operator:
K6PBQ
EchoLink: KK6MX

W6ACW, Ed Hajny, (408) 739-6105

WB6EMR, James D. Armstrong, Jr.,
evening & msg: (408) 945-1202

KD6FJI, Lloyd DeVaughns,
day: (408) 918-4635, evening: (408) 225-6769
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evening & msg: (408) 275-0735

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also (408) 269-2924
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e-mail: wb6yru@aenet.net

Date: 18 Feb 2004 09:07
From: W1GMF@W1GMF
To: HUMOR@USA
Subject: STORY FOR TODAY 0210

Today's Story - Freckles

A woman and her little grandson, whose face was sprinkled with bright freckles, spent the day at the zoo. Lots of children were waiting in line to get their cheeks painted by a local artist who was decorating them with tiger paws.

"You've got so many freckles, there's no place to paint!" a girl in the line said to the little fellow.

Embarrassed, the little boy dropped his head. His grandmother knelt down next to him. "I love your freckles. When I was a little girl I always wanted freckles," she said, while tracing her finger across the child's cheek. "Freckles are beautiful."

The boy looked up, "Really?"

"Of course," said the grandmother. "Why just name me one thing that's prettier than freckles."

The little boy thought for a moment, peered intensely into his grandma's face, and softly whispered, "Wrinkles."

Need Help?

Amateurs have a long history of helping each other. An experienced amateur who helps another is traditionally called an "Elmer." If you have a question or problem, you are encouraged to ask one of SCCARA's Elmers. Below is a list of topics including who to contact for each.

If you consider yourself to be reasonably competent in at least one area of amateur radio and would be willing help others, please fill out an Elmer form from the club secretary.

Antennas, feed-lines, tuners: WB6EMR, K6PBQ, WB6YRU
Lightning protection, grounding: WB6YRU
Station set-up, equipment: K6PBQ
TVI/RFI: WB6YRU
Homebrew projects, construction: KD6FJI, WB6YRU
Computers: KB6NP; IBM PC: WB6YRU
Packet Network (BBS, forwarding): WB6YRU
Code operating and installations: WB6EMR, K6PBQ
DX (long distance/propagation): WB6EMR

Newsletter Notes

This is the first *SCCARA-GRAM* to be published both normally (on paper) and electronically. A PDF version of this issue should be available on our web site (www.qsl.net/sccara) by the time you read this.

Eventually, we plan to have a list of members who elect to receive the newsletter electronically instead of by mail. At this point, it isn't clear whether we'll send a PDF version to each person on that list or simply send a note that a new PDF version is available on our web site, (and probably include a link).

Having an electronic version available on our web site will make it easier for members to get their hands on an extra *SCCARA-GRAM* issue to give to friends. They can simply direct people to our web site or download the PDF and print it themselves.

If anyone has any comments, let me know.

73, Gary WB6YRU, editor

S.C.C.A.R.A. Membership Form for 2005

(Fill in name and address if there is no mailing label below; make corrections if the label is incorrect)

Name: _____ Call: _____ Class: E A G T+ T N

Address: _____ Licensed since (yr): _____

City: _____ State: _____ Zip: _____ - Licence Expiration
Date (mo/yr): _____

Telephone: () _____ New Member I'm also an
 Renewal ARRL member

E-mail: _____ Packet: _____

For family memberships (at the same address), please fill out a separate form for each. Indicate the "primary member" for mailing purposes: _____

Annual membership dues are payable at the first of the year and expire the following December 31. New members joining on or after July 1, pay half the membership dues.

Annual Membership dues: \$15 Individual \$20 Family \$5 Student (under 18)

Please send the repeater Auto-Dial/Auto-Patch codes (no charge, circle): Yes
WE MUST BE ABLE TO VERIFY YOUR AMATEUR RADIO LICENSE
BEFORE ANY REPEATER CODES WILL BE SENT

Give this completed form (or copy) with payment to the Secretary or Treasurer at any meeting or mail to the return address below.

====> PLEASE DO NOT TEAR OR CUT FORM <====



SCCARA
Santa Clara County Amateur Radio Assn.
PO Box 6
SAN JOSE CA 95103-0006

Affiliate of the American Radio Relay League



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