

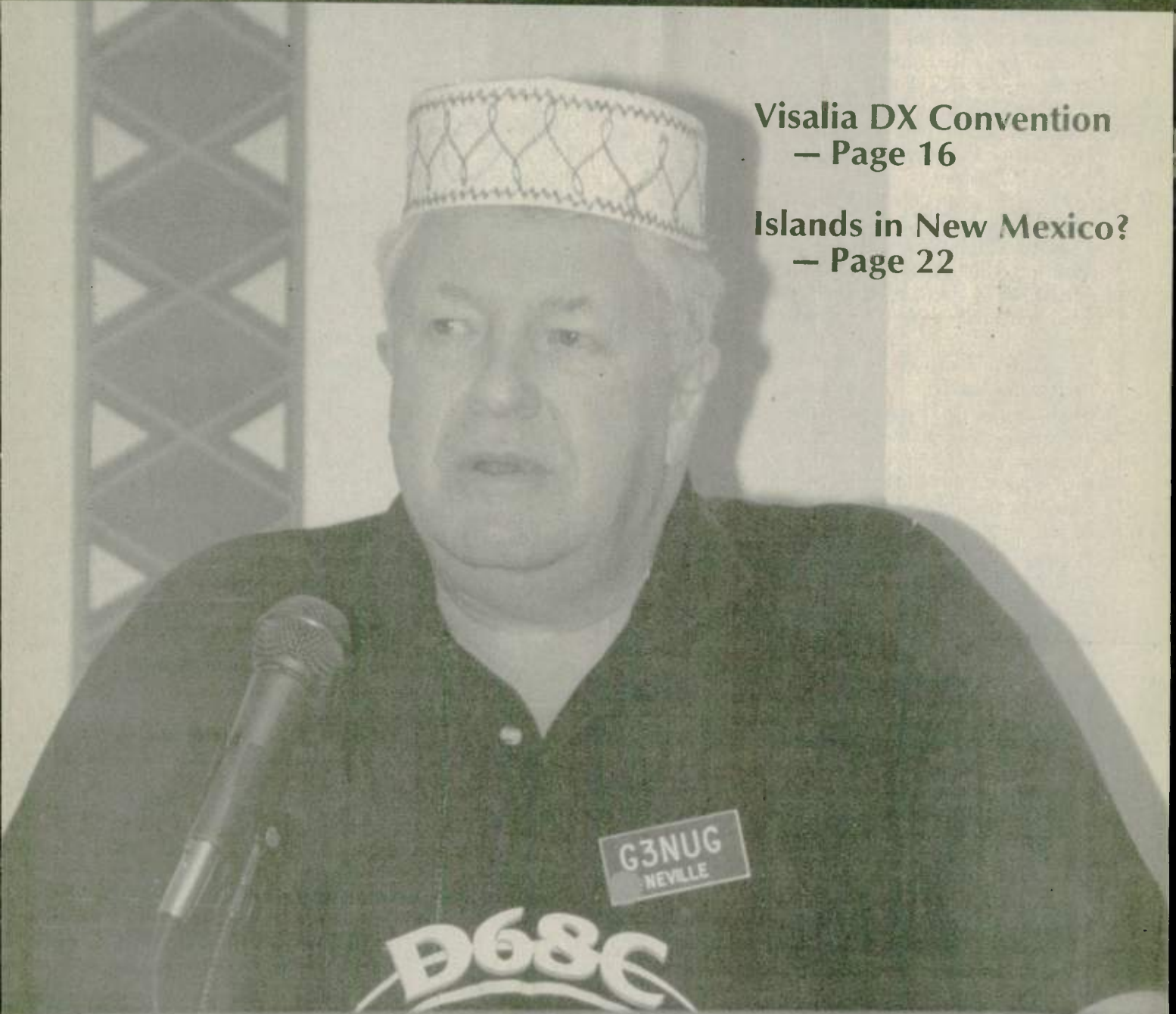
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WORLD RADIO

Year 30, Issue 12

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June 2001 • \$1.50



Visalia DX Convention
— Page 16

Islands in New Mexico?
— Page 22

Trinidad amateur provides new details of shooting

A Swedish sailboat skipper, shot when pirates accosted his vessel 20 March off the coast of Venezuela, remains hospitalized in Trinidad. The victim has been identified as Bo Altheden, SM7XBH. Hams on the Maritime Mobile Service Net assisted Altheden and his wife, ViVi-Maj Miren, after Miren put out a call for help on 20 Meters.

One of the amateurs who assisted in coordinating the rescue, Eric Mackie, 9Z4CP, of Trinidad, met late last week with Miren aboard the couple's vessel in Trinidad and was able to learn additional details about what happened. According to what Miren told Mackie, the couple was en route to Trinidad and Tobago and having lunch around 12:30 p.m. when their 44-foot-ketch *Lorna* was approached by six men in a fishing boat. "The vessel approached from behind, pulled alongside and Bo went out on deck to see what they wanted," Mackie related. "They asked for cigarettes, and Bo said he and his wife did not smoke."

Sensing trouble, Altheden started back toward the helm with the intention of pulling away from the other vessel. As he turned away, the intruders shot him once in the back. Miren told Mackie that the bullet wound caused considerable internal damage and bleeding. At that point, the pirates boarded the *Lorna* and helped themselves to what was on board.

According to Mackie, the pirates' booty amounted to less than \$20 in cash and a few miscellaneous items. Before leaving, the pirates destroyed

two VHF radios but missed the HF radio, an SGC SG-2020. Miren fired up the transceiver and found her way to 20 Meters, where she located the Maritime Mobile Service Net on 14.300 MHz. Her calls for help eventually were heard, although some on frequency later said they'd worried that her pleas might be overlooked. Mackie and others broke in to alert the Net to her calls, made nearly three hours after the shooting.

Mackie also was able to contact the Trinidad and Tobago Coast Guard, which came on frequency to speak with the *Lorna* directly, he said. As it worked out, vessels from the Venezuelan Navy and the Trinidadian Coast Guard arrived on scene at approximately the same time. While a medical team from Trinidad was able to board the *Lorna*, it was decided to wait until the vessel was in calmer waters before attempting to transfer Altheden to the Coast Guard vessel. Altheden remains in critical, but stable, condition at St. Clair Medical Center, a private hospital set up to deal with trauma cases. — ARRL Letter

Spectrum bill attracts cosponsors

The Amateur Radio Spectrum Protection Act of 2001 has begun attracting cosponsors in the U.S. House and Senate on both sides of the aisle. ARRL Legislative and Public Affairs Manager Steve Mansfield, N1MZA, reports that the House bill, H.R. 817, already has six cosponsors, including Representatives John Baldacci of Maine; Dan Burton of Indiana; Johnny Isakson of Georgia; Walter B. Jones Jr and Mike McIntyre of North Carolina, and Patrick J. Tiberi of Ohio. The identical Senate bill, S. 549, now has three cosponsors — Senators Daniel Akaka of Hawaii, Susan Collins of

Maine, and Jesse Helms of North Carolina. If approved by both chambers and signed by President George W. Bush, the Spectrum Protection Act would require the FCC to provide equivalent replacement spectrum should it ever reallocate primary Amateur Radio spectrum to another service. The same requirement would apply if the FCC acted to diminish any secondary amateur allocations or made additional allocations in Amateur Radio bands that diminish their utility. — ARRL Letter


Ham wins honorary Oscar

Screenwriter-producer-director Ernest Lehman, K6DXK, has received an honorary Oscar "in appreciation of a body of varied and enduring work" from the Academy of Motion Picture Arts and Sciences. The award was made during the 73rd Oscar awards ceremony 25 March in Los Angeles. "Ernest Lehman has written and produced some of the most memorable films ever made," Academy President Robert Rehme said in announcing the award. "He is not only a prolific screenwriter, but an accomplished novelist, journalist and motion picture producer, whose films rank as genuine classics." Lehman has been nominated six times for Academy Awards, four times in the category of Best Screenplay (*Sabrina*, *North by Northwest*, *West Side Story* and *Who's Afraid of Virginia Woolf?*) and twice in the category of Best Picture (*Who's Afraid of Virginia Woolf?* and *Hello, Dolly!*). Honorary awards, in the form of Oscar statuettes are given for "exceptional distinction in the making of motion pictures or for outstanding service to the Academy." — AMPAS, ARRL Letter



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WORLD RADIO

Year 30, Issue 12 • June 2001

On the cover: Neville Cheadham, G3NUG, was the featured speaker at the Sunday breakfast at the Visalia DX Convention 22 Paril 2001. His presentation on the D68C operation from the Comoros Islands was enthusiastically received, and acknowledged with a standing ovation. Bravo! Neville. — Photo by Rick McCusker, WF6O.

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Worldradio (USPS 947000) is an international conversation. You're invited to participate. Our goal is to be a valuable resource of ideas and experiences beneficial to the Amateur Radio community. We publicize and support the efforts of those who bring the flame of vitality to this avocation. As readers, you are participants in an alliance of active radio amateurs concerned with reality, using radio as a communications tool to develop the skill, quality and full potential of Amateur Radio. We emphasize the positive aspects of this great activity and desire your contributions dealing with dramatic, personal and humanitarian uses of Amateur Radio.

Articles for consideration may be submitted through the U.S. Postal Service or e-mail to articles@wr6wr.com.

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- 2 NEWSFRONT
- 4 Editor's Log
- 6 Skywarn puts nightmare to rest
- 7 EMCOMM 2001 a success
- 8 Amateur Radio Call Signs
- 8 Rules & Regs
- 9 Subscription Information
- 12 Eritrea, E3ØLA, E3ØMA
- 16 International DX Convention
- 22 The at-home island expedition niche
- 24 Awards
- 25 Special Events
- 25 Silent Keys
- 26 Station Appearance
- 26 Amateur Hi
- 28 Letters to the Editor
- 30 DX World
- 32 DX Prediction
- 34 QSL Managers
- 36 Search And Rescue
- 38 HF Mobile
- 40 Heil on Sound
- 42 Visit Your Local Radio Club
- 44 Amateur Satellites
- 46 10-10 International News
- 48 Traffic
- 50 Positively CW
- 52 QRP
- 57 Aerials
- 59 Contest Chart
- 60 Hamfests
- 62 New Products
- 63 VE Exams
- 64 The Mart
- 66 Worldradio Books
- 68 AO-40 transponder operation possible this summer

Next month: FM, Repeaters & VHF;
Old-time Radio; QCWA; and The Youth Forum

Editor's Log

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Thank you, one and all for becoming part of the *Worldradio* "family." (Just don't ask for an increase in your allowance!).

As you sit down in that cozy recliner to read this issue, take a moment to look at the cover. Up on the left side, just below the "W" in *Worldradio* — there it is! Year 30, issue 12. Yes, our next issue will be our 31st anniversary.

As the staff reflects on this issue, we have to wonder how we have managed to survive this long. It's all because of you, our readers. You are the ones who submit the stories, ideas, station appearance photographs and much, much more. Without your input we would not be here. Your stories have contributed to our success and serve as a wealth of information for your fellow Amateur Radio operators.

When Armond started this magazine, he did it on a wing and a prayer. The magazine was assembled in his bedroom with content being typed on an IBM Selectric typewriter. Now there's a blast from the past. When is the last time you heard the distinctive sound of one of those typewriters? The copy was taken to a printer who had

a copy machine that could reduce the type a little and print it. Armond called in a lot of favors to get this magazine off the ground, but I don't think he realized what he was getting into. He'd been in the news business for years, and wanted to share his skills with his fellow hobbyists.

So what's in the future at *Worldradio*? Who knows? It's your magazine — we just put it together for you. We are always open to suggestions from our readers, and would love to hear from you on what you like and don't like about *Worldradio*. Maybe your idea will be the one that results in a Nobel prize for literature for us. So feel free to let us know what you like, and don't like in *Worldradio*. Would you like to see something new or changes made? Without your input, we can't improve your favorite Amateur Radio publication. So, come on, send in your comments!

We just returned from the International DX convention. There were a lot of fellow amateurs who braved the elements (it was cold and wet on Friday and Saturday) to attend forums, meet the DX giants in the hobby, and generally have a really good time. The crowd was larger this year and makes me wonder if the venue will have to be moved to larger facilities within a couple of years.

Lots of interesting forums took place with some interesting displays and new stuff to look at. One new piece of gear that was previewed by a few of us was the new AOR TDF-370 Multi-media Terminal. All I can say is — WOW! It's at the FCC now for type approval, and they hope to have it available at Dayton. This is new DSP technology, and it's not the next step forward — it's a giant leap.

As you read this, we are about to depart for the biggest Hamfest in the world — Dayton. Lots of things to see, lots of new stuff to play with. You'll be getting a full report in the July and August issues. But one thing I can tell you for sure — if you haven't been to Dayton, you HAVE to get there, at least once. — *WF60*

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World Radio History

Skywarn puts nightmare to rest

José E. Guerra, KD5CZM

Summer, 1974. The sky to the north had that awful black color; thunder rumbled in the distance. The wind started picking up, both dusty and cool at the same time. Lightning sent moms and kids scurrying for cover. I kept watching the squall line climb higher and higher changing colors from black to purple to gray.

Dad was still at work 40 miles away in Corpus Christi, Texas. Fat raindrops started pounding the street; Mom raced about closing windows except one. She left a bedroom window cracked open. She read somewhere in *Reader's Digest* that doing so would equalize the pressure differences during a tornado. By this time, the rain came down hard. The lights went out on one lightning strike that made the fuse box crackle. At midafternoon, it was too dark for comfort. Mom covered all the mirrors with towels and bed sheets. The mere reflection of lightning, she said, would

doom a person.

Molly and Rick, my younger siblings covered on Mom's bed. When the rain intensified and the lightning crashed louder outside, Mom took the only drastic measure she knew in the face of a multi-cell squall line. She herded us to the floor on our knees to pray. Now, I was getting scared. I flinched with each thunderbolt. By the time we finished praying the rosary, the brunt of the storm had passed. Still, Mom kept the mirrors covered until the sun broke through the fading cumulus — about the time Dad came home for dinner.

I never forgot that summer storm of 27 years ago. The way the air smelled of impending rain, the harsh contrast of white lightning on gray cloud, the window-rattling thunder. Mostly, though, I never forgot the fear. Back in the 1970's we first heard of bad weather ahead when programming on TV was interrupted by an ominous bulletin. If you didn't have the radio on or busy playing outdoors the weather-beast would catch you off guard. The surprise was a big part of that childhood fear.

Today, I'm ahead of the game. The weather radio is on stand-by mode, cutting loose with its distinctive alert tone whenever it receives a bulletin. Someday, I'll upgrade to a unit with SAME (Specific Area Message Encoding) capability. When I surf the worldwide web, My Yahoo! will blink with a weather alert. Of course, there's The Weather Channel on cable.

Now that I've attended several Skywarn seminars, I've settled accounts with my boyhood bugbear. I now know tornado formation is not a random act that can occur regardless of existing conditions. I've learned about crucial

elements like rain-free base, wall cloud and strong surface-based inflow. Dark clouds to the north no longer means white-knuckle time.

Knowledge is power. It will not lessen the wrath of an F5 tornado like the one that struck Oklahoma City, Oklahoma in May 1999. Knowledge can educate and enable people to overcome fears. Two years after the half-mile wide twister ripped through town leaving 44 casualties and destroying 8,000 homes, therapists are seeing more cases of 'tornado anxiety' this season. Hardier souls cope by installing storm shelters. Others need serious professional intervention. My prayers for both these victims and the counselors who help them.

For many radio amateurs Skywarn is one facet of the same public service gemstone, a chance to put their time and talent to work helping others. Amateur Radio and storm spotting helps me help others to safety when bad weather strikes. The dual-band HT keeps me informed of other spotters' whereabouts and what they see now in "real-time" — bringing those Doppler radar images to life.

This year, I've taken an active role in promoting Skywarn. With the blessing of the National Weather Service's outreach coordinator, I've put up posters around town, faxed public service announcements to the media about upcoming seminars and set up meeting rooms for the smiling NWS representatives who make their annual presentations.

Tornado season runs from March to June in Texas and the southern U.S. (May to July in the northern half). When the word goes out, Skywarn volunteers become the eyes and ears of the National Weather Service. Their reports, relayed via Amateur Radio and telephone save lives and protect property. My hat is off to the weather service and the thousands of storm spotters nationwide; my personal thanks to Skywarn for putting a very old nightmare to rest.

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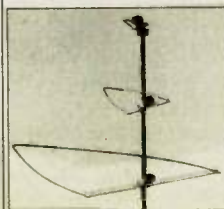
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EMCOMM 2001 a success



Jerry Boyd, K6BZ

For the second consecutive year, Bishop Quinn High School near Redding, California was the venue for EMMCOMM. EMMCOMM 2001 doubled in size compared to its inaugural year thanks, in part, to support from *Worldradio*.

This annual training conference focuses on current topics in emergency communications. Presenters represent many areas of Amateur Radio expertise. Subjects such as emergency power sources, psychological aspects of emergency response, message and traffic handling, a SKYWARN training class and portable emergency antennas were just a few of the subjects covered during the all-day event.

Over 100 Amateur Radio operators from all parts of California, Nevada, Oregon and Washington attended.

Displays included: Siskiyou County Sheriff's Search & Rescue command post, State of California Governor's Office of Emergency Services communications vehicles, California Department of Fire Protection communications van, American Red Cross Disaster Response vehicle and a California

Highway Patrol helicopter.

This event, which was covered by a news crew from the local ABC Television Network, was supported by *Worldradio*, the ARRL, and Ham Radio Outlet. Planning is already underway for EMMCOMM 2002, which may expand to a two-day event. Information regarding future EMMCOMM offerings may be obtained by e-mail from: k6soj@arrl.net or k6bz@arrl.org.

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FCC denies petitions for reconsideration

One thing the FCC can count on when it makes a decision on any issue is that someone will disagree and prolong the rulemaking process. It doesn't seem to matter that the FCC follows an open comment process (required under the federal Administrative Procedures Act), receiving hundreds and even thousands of comments that it must consider when fashioning its opinions and orders.

When the final decision was made, most of the amateur community accepted the compromises and final decisions presented by the FCC and went on with their restructured lives. But not everyone. Several individuals and organizations were not satisfied with the Restructuring Order and filed petitions for reconsideration.

I predicted that the FCC was unlikely to grant any of the requests, other than a possible retention of the Tech Plus database requested by several petitioners. That prediction was proven right on the mark on 6 April 2001, when the FCC dismissed all but the very minor Tech Plus database request.

ARRL gets a P-bone

The ARRL's "Petition for Partial Reconsideration of Report and Order 99-412" asked the FCC to maintain separate records on Technician licensees who passed the Element 1A 5 wpm

Morse code test. The ARRL and several other petitioners were concerned that "un-coded" Tech licensees were going to sneak onto the HF band segments reserved for Tech Plus (and "Techs with Code"), especially the 10-meter phone segment where Novices, Tech Pluses, and Techs with Code can do their verbal thing. The July 2000 Rules & Regs column accurately predicted "if the FCC is going to throw a bone to the Partial Reconsideration petitioners, this is a likely candidate." The FCC cast a bone to the ARRL by mentioning the current Universal Licensing System software had been modified to display a "P" (for Plus) in the "former license class" field to indicate that a Technician Plus class license has been renewed. The FCC calls this minor mod a "de facto Technician Plus licensee database." The ARRL was not satisfied with this and complained in the 6 April edi-

tion of *The ARRL Letter* that the "FCC did not address how its database will distinguish current Technician licensees who subsequently earn Morse code (Element 1) credit. Those licensees have only a Certificate of Completion of Examination (CSCE), which will never be reflected in the database, even upon license renewal." The ARRL is correct that the FCC database will not maintain a record of Techs with Code, but no one (including the FCC) much cares, other than the ARRL and the Frequency Police. The ARRL also wanted the FCC to give perpetual credit to anyone who ever passed the 5 wpm test, so General, Advanced, or Extra Class licensees who had let their licenses expire could rejoin the Ham radio community without re-taking any code test. Leaving aside the decidedly mixed messages the ARRL is sending about Morse code testing, I had actually opined in last July's column that

Amateur Radio Call Signs

The following shows the last call sign in each group to be assigned for each VE Region under the sequential call system as of 27 April 2001.




For more information about the sequential call sign system, see Fact Sheet PR5000 #206-S dated August 1996 or contact the Federal Communications Commission, Consumer Assistance Branch, 1270 Fairfield Road, Gettysburg, PA 17325-7245, toll free 888/225-5322

District	Group C Technician	Group B General	Group A Am Extra
Ø	KCØKJZ	++	ABØQT
1	KB1GSD	++	AA1ZZ
2	KC2HWZ	++	AB2LZ
3	KB3GNB	++	AA3WU
4	KG4NEA	++	AG4IL
5	KD5OFL	++	AD5DZ
6	KG6GFO	++	AD6WR
7	KD7MXN	++	AC7ZQ
8	KC8RGY	++	AB8KS
9	KB9ZLO	++	AB9BZ
N. Marianas	KHØMX	++	++
Guam	KH2VI	++	++
Hawaii	NH7FF	++	AH6QZ
American Samoa	WH8ABF	KH8DO	AH8U
Alaska	KL1CR	++	++
Virgin Island	WP2AIM	NP2LS	++
Puerto Rico	WP3KN	++	WP3T

++ All calls in this group have been assigned

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"this is a reasonable request" and suggested that the FCC might see fit to grant it regardless of the unfortunate fact that the ARRL petition told them they "must" do it.

FCC rejects others

Besides the ARRL, there were several other disappointed petitioners. Among those discussed in the July and August Rules & Regs columns were those filed by Millard Qualls, Fred Duran, Jr., and Stewart Teaze, as well as the joint petition filed by Alan J. Wormser, Frederick V. Adsit, and Michael J. Dinelli. The latter three gentlemen were highly offended by this columnist's feeble attempts at humor in trying to come up with an abbreviation for their petition, so this time I will just go with the FCC's space-saving acronym "WAD." Actually the trio filed two petitions, the latter of which included all the points made in the first effort, so I will join with the FCC and

"refer to both petitions as WAD II." Both the Qualls petition and WAD II objected to the FCC reducing the maximum code speed test to 5 wpm. WAD II wanted the FCC to reverse itself and reinstate the 20 wpm code test for the Extra Class. Rather than looking to the past, the FCC took a look at the future of Amateur Radio. The FCC noted many other countries have reduced or are considering reducing their telegraphy examination requirements to 5 wpm. As the ARRL has already noted on its web site, the Conference of Postal and Telecommunications Administrations (CEPT) has effectively lowered the Morse code test speed to 5 wpm for amateurs throughout Europe. But the real message is easy to overlook. It notes that these other countries are not just lowering the code test speed to 5 wpm, but are "looking toward eventual elimination of a mandatory telegraphy licensing requirement altogether."

5 wpm ... 4-3-2-1-0

The FCC also dismissed the Qualls petition claim that some Amateur Radio operating activities require the use of moderately high to high speed Morse code and reiterated the Commission's conclusion in the 1999 Report and Order that "an individual's operating preferences" are not "germane" to making rules about mandatory testing requirements. It also gave no credence to the WAD II arguments that 20 wpm "is only a barrier to unmotivated individuals" and that disabled individuals should be content with a General Class license. Look for the Morse code test to go the way of test questions on vacuum tube low power HF transceiver circuits in the not-too-distant future.

WAD II also asked the FCC to increase the number of questions for the written examination from 35 to 50 for the Technician and General Class operator licenses, and to raise the number of questions for the Amateur Extra Class written examination element from 50 to 100. The reason given by WAD II was that the proportion of technical questions on the written examination elements had been reduced and the cumulative number of questions needed for an applicant to obtain each license class has also been reduced, apparently somehow rendering new amateurs who passed those tests less worthy or capable. The FCC responded to WAD II that "the cumulative number of questions an applicant must answer correctly to obtain each license class is not a particularly relevant measure of whether an applicant is qualified to be an amateur service licensee," and added "the difficulty of an examination is determined by specific questions that appear on that examination, rather

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than simply the topics the examination covers," or, I would hasten to add, the sheer number of questions. The FCC suggested, "WAD II should address concerns about written examination element issues to the Question Pool Committee of the NCVEC."

The final issue addressed in the FCC order is the WAD II request that the FCC prohibit examinees from repeating failed examination elements at one examination session. The FCC says "decisions whether to allow an examinee a 'second chance' at the same examination session are well within the discretion of the VE's."

Other petitions dismissed

The FCC also dealt with several petitions that were not direct requests for reconsideration of the Restructuring Order, but were actually requesting the FCC to go forward with some spectrum reallocations that were not part of WT 98-143. Dennis Kippa and David J. Hill filed a petition for rulemaking, RM-9867, asking the FCC to reduce the CW frequency segments in the amateur bands. The petition states, "CW communications are archaic, "reminds the FCC that the CW mode has been abandoned by "all Federal agencies except Amateur Radio," and concludes, "the Commission can no longer justify the broad reservation of the radio spectrum for CW only." The FCC reminded the petitioners "the amateur service is not a Federal agency," and reminded us all that a band plan is not a regulation.

A somewhat related petition was filed last November by Joseph Speroni (RM-10018). The petition sought an increase of frequency privileges available to Novice and Technician Plus licensees. The petition somewhat logically reasoned that the elimination of the Novice license would reduce the number of Novice licensees and, as a result, those Novices remaining and their Tech Plus compadres would have "less opportunity to practice and develop their Morse code skills." The FCC dismissed both petitions by saying simply "the premise of these petitions is faulty and does not provide a basis to change our rules. For this reason, we will deny them."

But they know CW!

Two petitions attempted to summarily elevate some license holders to the Amateur Extra Class license without passing any further written exam. The first, filed by Fred A. Duran, noted that prior to 1951, there were three classes of Amateur Radio licenses — Class A, B, and C operator licenses. The 1951 License Structure Decision converted the Class A to the Advanced Class and intentionally did not convert or grandfather Class A operators to the new Amateur Extra Class. The Duran petition asks that the FCC correct this "unfair" oversight and restore Class A ops to their "previously earned top amateur license status." The FCC denied the request and made several cogent points. The FCC points out that all a former Class A (Advanced Class) operator needs to do is pass (by correctly answering at least 37 of 50 multiple-guess questions) a written test.

The Quarter Century Wireless Association (QCWA) filed a petition for rulemaking asking the FCC to elevate Ham operators who held a Conditional, General or Advanced Class license before 22 November 1968 to Amateur Extra Class status without passing the required written exam. The QCWA petition states that amateurs holding these classes of operator licenses lost significant frequency privileges as a result of the FCC's Incentive Licensing decision, and "that no useful purpose is served by continuing to deny the privileges withdrawn from these operators," which the QCWA declares was "unjust."

Well, that's pretty much the story. The FCC clears the decks of all of the Amateur Radio restructuring petitions and related issues pending before the FCC. For those of you who would like to read the full MOO (and have an Acrobat reader), it is available on the ARRL web site in pdf format at: www.arrl.org/announce/regulatory/wt98-143-recon.pdf.

— *David Splitt, KE3VV, our firing-from-the-hip columnist can be reached by snail-mail sent to: 6111 Utah Avenue., N.W. Washington, DC 20015 or by e-mail to: davidsplitt@erols.com.*

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Eritrea - E3ØLA, E3ØMA

Tom Bridges, W7LN

In the Spring of 1993, I traveled from my home, which was then in Pretoria, South Africa, to Asmara, in the newly independent country of Eritrea. I was planning to spend less than a week there on assignment at the U.S. Embassy. I had taken a Transworld TW-100 "fly away kit" with me in case I had a chance to operate. I contacted one of the officials at the embassy about my desire to obtain a license and he said he would talk to his government contacts. The answer came back that since the country was so new, there were many more important things to think about than Amateur Radio licenses. One night I tossed the wire antenna out of the window of the hotel to listen on the bands. To my surprise, there was a DXpedition operating from Eritrea! Since my remaining time in



E3ØLA

Eritrea

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the country was so short, I did not pursue getting a license any further.

In the Spring of 2000, there was an opportunity for someone to go to Asmara to install equipment at the embassy. Having recently read that Eritrea was on the top ten wanted list of countries, I volunteered to go TDY to do the work. Since I would have to hand carry my luggage and tools, I was limited in what I could take with me. I put my Icom IC-735, power supply and ancient Vibroplex bug in my suitcase and packed clothes all around them. I trusted that I would be able to find some type of antenna on site. My flight took me from Washington DC to Frankfurt, Jeddah, and then Asmara. I arrived late on the night of 31 July and spent the next few days working and looking for license information. On 4 August, one of the

local employees at the embassy told me about an office in the Ministry of Transport and Communications which issues licenses. That afternoon we went downtown and made arrangements for the license. It took a little while to get all of the forms in order and have them validated by the proper authorities. Finally they asked for the fee. Although it was far more than I had paid in any other country I had been licensed in, this was a chance of a lifetime to take Eritrea off the wanted list of many Ham operators. After they had received my money, I was issued the call E3ØLA. The following day was Saturday and I found a B&W trap dipole, which wasn't being used, strung between two poles, I connected my Icom to the coax, found some AC power and a step-down transformer, and turned on the radio. I had previously printed out some log sheets, so I was ready to go. At first I answered a CQ or two and dazzled the stations with my exotic call, but that didn't last long. Within minutes the pileups began. Interestingly enough, the phone portions of the bands quickly faded out, but not the CW portions. So

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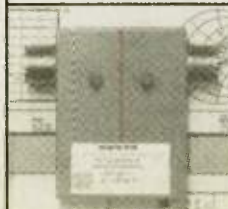
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the remainder of the day was devoted to CW operations, primarily on 15 Meters. Nearly all of the contacts were Europeans and Asians.

I don't operate on Sundays, but during the day Monday, I received a telephone call from the Ministry. The official told me that on Saturday, an Italian amateur had heard me operating, using a call that had been issued to him. Upon checking their records, they agreed that they had given me the wrong call letters, and asked me to return my license. I said that I would like to keep it as evidence that at least for the fifth of August, I was operating legally with that call. He agreed. Later in the day I returned to the Ministry and was issued the next call in sequence, E3ØMA. I have since found that it, too, was a reissue.

During that week I operated from about 6 p.m. until the band closed at about 9:30 p.m., and all day the following Saturday. On Monday, the 14th, I operated as long as I could prior to leaving for the airport. Just before my final QRT, I was surprised to work a station with the strange call SV9/WW2LST/MM. I found out later about this ship, an old World War II LST. I made contact with them just before they left on their voyage across the Atlantic Ocean to the U.S.

Although I stood by many times to make contacts with North American amateurs, I only worked three. All in all, I made 1,480 contacts during my Eritrean operation. I was pleased with the courtesy of the stations who were waiting to contact me. I found that my particular operating style when there

E3ØMA

Eritrea

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is a "pileup" is to call stations "by the numbers." Although this doesn't enable me to make quite as many contacts and it makes many stations wait, it does allow weak stations, who would otherwise be overwhelmed by more powerful stations, to make the contact. Nevertheless, there was only one incident of rudeness, which is very commendable, considering the great desire of many operators to contact an E3 station.

Asmara is a very pleasant city and although there was a border war with Ethiopia going on some distance away, the city was calm. I found it to be more of a Mediterranean than African style city, probably because it was the capital of the Italian colonies in Africa prior to World War I. As such, there were lots of wonderful Italian restaurants and architecture. At one time there was an American military communications site in Asmara, so many of the local people speak some English. Currently it isn't a big tourist destination, but there are some large, new, modern

hotels in town as well, as small, more "native" places to stay. One night I went to an annual outdoor celebration featuring singing and dancing by many tribal groups from Eritrea. It really added to my appreciation of the varied cultures of the country. The August climate in Asmara was very pleasant with a heavy, but brief rain nearly every day. All in all it was a great experience and I was pleased to have the opportunity to add another country to so many logbooks.

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HAM-IV, \$529.95. The heavy duty Ham-IV is the most popular rotator in the world! It is designed for medium size antenna arrays up to 15 square feet wind load area when mounted in-tower, or 7.5 square feet when mast mounted with an optional lower mast bracket. New alloy ring gear gives extra strength up to 100,000 PSI for maximum reliability. New low temperature grease permits normal operation down to -30 degrees Fahrenheit. New wire-wound potentiometer gives reliable and precision directional indication, new ferrite beads reduce RF susceptibility, new Cinch plug connector plus 8-pin plug at control box (no screwdriver needed). Dual 98 ball bearing race for load bearing strength. Strong electric locking steel wedge brake prevents wind induced antenna movement. Easy-to-use Control Box has illuminated directional meter with North or South center of rotation scale, separate snap-action brake and rotation switches. Uses low voltage control for safe operation. Accepts masts up to 2 1/8 inches diameter. Rotator size is 13 1/8 H x 8 D inches.

T-2X, \$619.95. Extra heavy duty Tailtwister antenna rotator! For large antennas up to 20 square feet wind load when mounted in-tower, or 10 square feet when mast mounted with optional support bracket. Triple 138 ball bearing race, strong electric locking steel wedge brake. Control Box has an illuminated directional indicator with North or South center of rotation scale, separate snap-action brake and rotation control switches. Accepts masts up to 2 1/8 inches diameter. Rotator size is 14 1/8 H x 9 1/8 D in.

CD-45II, \$369.95. Medium duty antenna rotator. Handles antenna arrays up to 8.5 square feet windload area when mounted in-tower, or 5 square feet when mast mounted with supplied lower support. Dual 48 ball bearing race, disc brake system. Control Box has an illuminated directional indicator with North or South center of rotation scale, separate snap-action brake and rotation control switches with disc brake release. Accepts mast sizes up to 2 1/8 diameter. Includes light duty lower mast support. Rotator size is 17 1/8 H x 8 D inches.

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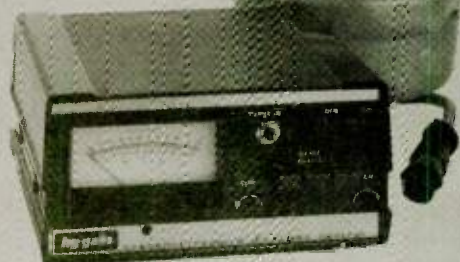
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Wind Load (with mast adapter)	10 sq. ft.	7.5 sq. ft.	5.0 sq. ft.	1.5 sq. ft.
Turning Power (in pounds)	1000	800	600	350
Brake Power (in pounds)	9000	5000	800	450
Brake Construction	Electric wedge	Electric wedge	Disc brake	Disc brake
Bearing Assembly/How many	Tripl race/138	Dual Race/98	Dual race/48	Dual race/12
Mounting Hardware	Clamp plate	Clamp plate	Clamp plate	Clamp plate
Control Cable/Conductors	8	8	8	5
Shipping Weight (pounds)	28	24	22	14
Effective Moment (in tower)	3400 ft/lbs.	2800 ft/lbs.	1200 ft/lbs.	300 ft/lbs.

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T-2X

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CD-45II

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International DX Convention

John F.W. Minke, III, N6JM

The deserving DXers of California have been gathering together for an annual DX convention since 1950. Originally held in Fresno in January the convention has since moved to Visalia and rescheduled to later in the spring. Thus, the gathering for the 52nd Annual International DX Convention was held the weekend of 20-22 April at the Holiday Inn and now includes more than just California DXers.

The affair begins on Friday afternoon, with the exception of a golf tournament in the morning for those who think they can out-golf Tiger Woods. The *Worldradio* crew arrived mid-afternoon and the socializing was already in full swing, one of the prime reasons for this highly successful DX convention.

In addition to the socializing, several exhibits and displays were available



Dick Norton, N6AA, asks Bob Cox, K3EST, Contest Editor for *CQ* Magazine, "Where's my certificates?"

to the attendees. Later that afternoon there was the usual Attitude Adjustment Hour, hosted by DX Publishing and Radiodan, later followed by various specialty dinners. The *Worldradio* crew attended the Contest Dinner, sponsored by the Northern California Contest Club, which attracted a large crowd of 127 persons. Other dinners going on at the same time included FOC and the 160-meter crowd. There was an unpublicized IOTA dinner that was offsite with about 25 attendees at Applebee's Restaurant, the same place as that of the topband bunch.

At the contest dinner there was a

special guest — Jim Haynie, W5JBP, the president of the American Radio Relay League. The MC for the event was Tom Schiller, N6BT, assisted by Dennis Motschenbacher, K7BV. A special presentation was given by Ward Silver, NØAX, of the Western Washington DX Club, with his provocative Hi Performance CW, variations on a theme.

Saturday began in full swing. It has been commented on in the past that attendees at these DX conventions appeal to the older set. Well, this isn't true. During one of our breaks we ran into Chris Hurlbut, KL9A, of

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Marcel Skinner, K7XV, swapping stories with Gary Stilwell, KI6T, recently heard as C6AGS.

Anchorage, presently attending the University of Idaho at Moscow. Chris was the recipient of *Worldradio's* initial CATZ award back in 1997, then signing with WL7KY. We also met our counterpart call, N6MJ the call held by Dan Craig, a young DXer from southern California.

DX Forum

The DX Forum was moderated by

Jack Troster, W6ISQ, which included several dignitaries, such as Wayne Mills, N7NG; Dick Moen, N7RO; Carl Smith, N4AA; and Bernie McClenny, W3UR. Each of these DXers were allowed three minutes to discuss their views. Jack issued a California acorn to each upon completion of their presentation.

Dick, N7RO, related his DX withdrawal blues after his part with the



Dave Bell, W6AQ, introduces his video filmed at WRTC 2000.

team in the recent YK9A DXpedition, which made some 28,000 contacts in seven days.

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Bruce Butler, W6OSP, explaining how the Northern California DX Foundation makes some DXpeditions possible.

At that point everyone who was an Honor Roll member was asked to standup, to find out who the youngest member was. The youngest was 38

years old.

Bernie, W3UR, of "How's DX," the DX column in *QST*, discussed the DX Survey 2001, which included responses from 1,400 DXers, of which 27 percent were on the Honor Roll. The survey results showed 69 percent of the DXers are in the 51 to 80 years age group, most of them starting in the game when they were teenagers. Ninety-four percent are involved with the Internet.

Wayne, N7NG, discussed how the DXCC Desk calculated the Top 100 List. This was done via the large database they have based on who has credit for these needed countries. Wayne said that it was interesting to note that the least needed DXCC

entity was Italy, and not the United States. The DXCC Desk is presently working on installing new software to help make this data more meaningful.

Carl, N4AA, discussed how he puts together the 100 Most Wanted Survey in his publication, *The DX Magazine*. Carl had acquired this publication from the late Chod Harris, VP2ML, and had no idea how he did it. He also said that the idea was that of Hugh Cassidy, WA6AUD, of the long defunct *West Coast DX Bulletin*. The list was initially biased, according to Roger Western, G3SXW, as it included only the United States needs. Roger did some research and enlarged the database to include some 1,000,000 calls from DXpeditions. What is needed



Chip Margelli, K7JA, shows off Yaesu's FT-817 all-mode HF, VHF/UHF QRP rig.

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in the survey is that one must have the QSL card, otherwise it counts as still needed.

Wayne, N7NG, was due for another acorn as he discussed Electronic QSLing. A study is presently being made at ARRL headquarters with Dave Sumner, K1ZZ, in charge. They hope to start testing this July with software tools eventually available.

Vince Thompson, K5VT, talked about getting licenses in Africa, such as Burundi, where Vince had taught surgery. He asked the Minister of Health if he would introduce him to the Minister of Licensing. However, the two ministers were not of the same tribe. Vince was visited by a woman with infertility problems, who just happened to be the wife of the Minister of the PTT. Although this was not Vince's field of expertise, he said he could help her with her problem. The couple now have three children and Vince received a letter for lifetime permission to operate — an acorn for Vince!

Some attendees were beginning to fall asleep as Bob Wolbert, K6XX, came up with this idea of having attendees shout out their calls where a team of about a half-dozen would try to pick out the calls. There was a catch, however, as calls were to be sent via CW for a period of 23 seconds. Out of the QRM we heard this screeching signal, W3UR.

Wayne, N7NG, was due for another acorn as he discussed the subject of remote control and said that this was addressed four years ago. The point of view at the DXCC Desk is that this must be done within the same entity and we really have to define our own rules.

The president of the Northern California DX Foundation, Len Geraldi, K6ANP, explained what the NCDXF was doing and said that they sponsored 20 DXpeditions during the past year, including A52A, D68BT, D68C, TS7N, and YK9A, to name a few.



Carl Cook, AI6V, (center) tells two convention visitors about his frequent operations from P4ØV.

Presently, the membership amounts to 780 domestic DXers plus about 300 international supporters.

Paolo Cortese, I2UIY, outlined the ARI QSL Bureau, which is divided into three sections; one outgoing bureau and two incoming bureaus. He said that membership in ARI is \$53 per year, that includes insurance and unlimited QSL service.

Paolo said they send out four shipments a year of QSL cards and receive six shipments per year for their membership. About 11,000 pounds of QSL cards were shipped in 2000.

Steve Frick, N6QEK, the new man-

ager of the 6th District Incoming QSL Bureau in San Diego for the past seven months talked briefly about the bureau. He assumed management duties from Archie Willis, W6LPJ, who for many years with his wife, had been in charge of the initial sort and distribution of the incoming shipments operating out of the Sun Valley post office.

Steve says that they desire #35 envelopes as standard. Do not send #10 business size envelopes. In lieu of providing envelopes you may provide funds for envelopes and postage, but please provide address labels. Also, if you have used one of those one by one

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calls, please let them know who the cards for that call goes to.

John Kanode, N4MM, talked briefly on licensing in Mexico. This evidently is a complex matter and John read the document that he received. This was an item that was discussed at last year's forum.

DXCC card checking

Two hours were allocated Saturday afternoon for attendees who wished to update their DXCC standings. There were 16 checkers to speed things along. And talk about organization, how about take a number. There was no need to stand in line. We arrived early and received number 93. Holy cow! A lot of DXers were checking cards today. We were a bit relieved when the numbers began with 71.

They also allowed field checking of QSL cards, 10 years and older plus 160-meter cards, as a representative from ARRL headquarters was present. Of course we had many of those, even back to 1966, qualifying for the Antique QSL Department. My checker through his hands up in despair



Vince Thompson, K5VT, contemplates his next move — to the U.S. Tower barbeque or to another forum.

and turned it over to Dan Henderson, N1ND, from ARRL headquarters. Dan told me that I couldn't submit a 20-meter QSL for a 10-meter contact. Frankly, I'm still trying to figure how I managed to do that. So, I still need a T9 card for 10 Meters.

The group in charge of coordinating this function need to be congratulated. Future DX conventions should take note of this procedure as it worked well here.

Journey in poverty

Paolo Cortese, I2UIY, gave his presentation about a group of Italian DXers for a low profile DXpedition

to Niger, one of the poorest nations in the world.

Introduced by Rusty Epps, W6OAT, he said that Paolo had been involved with one of the recent 1AØKM DXpeditions. He has been involved with Amateur Radio for 30 years and has held his present call for the past 20.

A journey in poverty, it was. Paolo said that the life expectancy in this country was 40 to 45 years of age. He said that there have been eight different operations from Niger in the last 15 years, beginning with I2VA/5U7 in 1986.

The three of them set up three stations and for the low bands and they used a Butternut vertical antenna. They were also visited by both the director and vice director of the PTT while there. They applied and received three different calls for their operations: 5U2K for SSB; 5U3T for CW; and 5U5A for the ARRL DX Contest.

When departure time came Air France decided to cancel their flight, so they went back and set up for some more operating, using the 5U5A call. In two weeks of operating, the little group collected some 29,600 contacts with 18,932 of those contacts on SSB. Forty-two percent of the contacts were with North America.

Saturday evening banquet

At the conclusion of the Cocktail Party, hosted by Ham Radio Outlet, DXers wandered into the banquet hall for an evening of socializing and other festivities. The evening's master of ceremonies was Tom Schiller, N6BT, who introduced the various ARRL directors, vice directors, section managers and overseas guests.

Jim Haynie, W5JBL, ARRL president spoke briefly saying that he was a salesman by profession and felt it his duty as president to sell Amateur Radio and asked the rest of us to do the same.

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of the year.

With that wrapped up it was time for the main event, The 2000 Kingman Reef DXpedition, narrated by Garry Shapiro, NI6T, and Ned Stearns, AA7A. Garry began the presentation by noting that their initial interest was to Central Kiribati (T31), but evidently this one was soon to be visited by another group. Both Palmyra Island and Kingman Reef are very close together. However, the former is administered by the Department of Interior and the latter is administered by the U.S. Navy, and Kingman Reef may soon disappear as an entity. Chuck Brady, N4BQW, had been presently operating from Palmyra Island, and, according to Garry, knew the family who owned Palmyra Island.

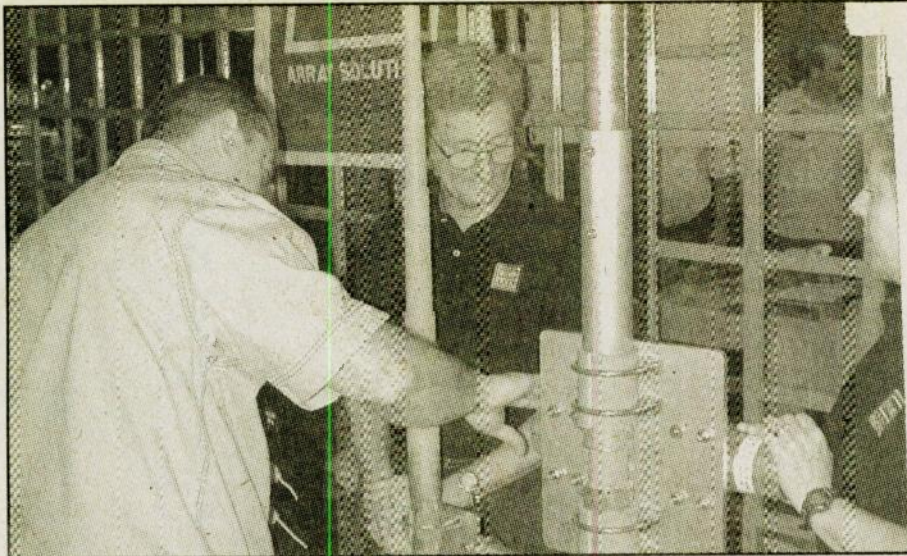
The team flew to Christmas Island where they set sail to Palmyra Island. Chuck was originally scheduled to go but was replaced by Joe Owen, KO4RR, as the medic.

Ned then began his portion of the presentation of the K5K DXpedition on Kingman Reef. This was a multi-national affair with 14 operators and collected some 81,000 contacts during their stay on the reef. The presentation was supported by computer generated audio/video clips.

At the conclusion of the presentation, the usual prize ticket numbers were drawn. Attendance at the banquet amounted to 572 persons.

Breakfast presentation

DXers are early risers, judging on the large number arriving at 8.30 a.m. for breakfast. After finishing a buffet breakfast and the awarding of



Several vendors were present, including Array Solutions — aka WXØB

a more operating awards, the breakfast presentation, the Five-Star DX Association D68C DXpedition to the Comoro Islands in February 2001 was given by Neville Cheadle, G3NUG. Neville mentioned that upon completing of his group's 9MØC DXpedition to the Spratly Islands (65,000 contacts were made by that group) he had given some 30 to 40 presentations to Amateur Radio clubs within the United Kingdom. He asked at each one how many worked them. Silence was the usual answer. He then asked how many heard them with a couple of responses that a few did

hear them. Neville said that this was disappointing and instructed them on the building of antennas, including much publicity as to where and when to find them on the Comoros DXpedition. His presentation was supported with a 40 minute video. At the conclusion they announced that the DXpedition was the first ever to break the 100,000 contact mark, with a total count of 168,731. The previous record was around 93,000 contacts. Of the D68C count there were 3,400 unique G calls. And, of the total amount there were 46,000 unique calls worldwide. From 80 to 168,000 the rate of unique calls being worked was 20 percent.

Just prior to the conclusion of the convention the final prizes were award with the grand prize, a Yaesu FT-1000 Mark V transceiver being won by Bill Heather, KC6WKT.

This event seems to grow every year, and we're looking forward to seeing you there in 2002.



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The at-home island expedition niche

Ralph H. Clark, NM5RC

It looked as if the snow level on the Sangre de Cristo Mountains would soon descend to the lake and I knew it would be dark before I got the radio back in the boat and the boat out of the water. Still, the continuing contacts kept me huddled over the rig and the table I'd lugged up from the boat. Being able to generate and fumble my way through a pileup finally made Amateur Radio the fun I'd expected. The United States Island Award (USIA) hunters were anxious to contact a new island and more than willing to provide on-the-air assistance in the best tradition of Ham radio. Even asking again and again for repeats on callsigns and exchange information when their good signals were being received didn't bother this group. They seemed to understand it takes some of us a while to develop the ear to brain to hand to paper log process. Wow! It was unlike most of what I'd previously heard fiddling with the radio for several years. Exchanging a few comments and information seemed acceptable.

Even as a kid, I'd wanted to get into



Keith Pfefferle, N5Z6M, hands out contacts while Marc Sanchez, KD5MSS, handles the log. Marc proudly wears his "island activation" Hawaiian shirt.

Ham radio. The discarded radios at the local shop often found their way into my little red wagon for dismantling at home. But, it wasn't until my daughter showed me a license study manual when I was 50 that the itch was scratched with a Technician ticket. A few months later the Tech Plus came along and the shack held a Kenwood TS-450 attached to a roof-mounted vertical antenna. I expected to soon be visiting with Hams around the country and world. Puzzled about what I could not hear and what I was doing, I occasionally attended a local club, but couldn't seem to generate mentoring, even when I passed out a written plea for help. After being licensed seven years, I made my first contact (thanks KF4GYI). My radio inactive, daughter (KC5MTI) and

her almost radio in-active husband John, KB5ENN, suggested I drop by Field Day in the adjacent county where they belonged to the Valencia County Amateur Radio Association. Being welcomed and having some of my questions asked re-perked my interest. Things began to fall into place and in early 2000 a few contest exchanges were made, I upgraded and got the New Mexico Five Ralph Clark call sign.

Reading a *Worldradio* column that mentioned USIA got me to the USIA web site for what has turned out to be an enjoyable Amateur Radio niche. Focusing on the activating islands end, rather than the collecting contacts with islands end of the challenge allowed me to combine my camping and fishing interests with being a Ham. It also allows me to maximize the contacts made for the limited time I spend on the bands.

A USIA island only needs to be 100 feet long and 50 feet from other shorelines. This has allowed me to answer the "Really, an island in New Mexico?" question with: "Here in the desert, if we have a puddle we

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call it a lake and, if a rock sticks out of it, we call it an island." USIA numbers the islands when they are first activated and lists them with the qualification activating station's callsign. Would you believe I've catalogued all New Mexico islands; there are nearly 80 (it would be interesting to see someone inventory Minnesota's islands). As of April 2001, fifteen of these have been activated. Being involved in eleven of those efforts has been an absolute joy as has visiting with Don, AA5AT, on all eleven. Although only 25 contacts, including at least one from outside the United States, are required to qualify an island for USIA listing, once the island hunters find you're on a new island, you would leave many disappointed folks in the pile-up if you quit at 25.

While I've painted a rosy picture, the first island (NM007L) in the summer of 2000 was not so easy. After a little coaxing, son-in-law John accompanied me. Would you believe it took us two trips to the lake and two days on the island to make the qualifying contacts? We even resorted to checking into nets to get contacts. We were so inexperienced that when someone said "QSL" to us meaning "Can you (or I) acknowledge receipt," we thought they were asking for a QSL card which created a lot of confusion on both ends. It was only near end of the second day that we discovered folks would find us if we stayed put on frequency and kept calling CQ. Unfortunately, after that quick glimpse of what could be, we had to pack up and head for shore to avoid a fast approaching thunderstorm. Travel and surgery kept me off islands until the December 2000 trip to Storrie Lake's Big Island mentioned at the beginning of this article. At an elevation of 6,400 feet, I was lucky to catch a day's break in the winter storms that spill across the lake from the adjacent Sangre de Cristos. While logging 161 contacts in six hours might not impress others, it sure made this old man happy to finally find an Amateur Radio home. As a bonus, the island expeditions have brought me QSL cards from 14 countries (still waiting

for three).

My portable field station consists of a Kenwood TS-450 and a short G5RV antenna that works well with the 450's automatic antenna tuner. The antenna is put up about 16-feet on three of *Worldradio's* telescoping fiberglass poles. Power comes from the fishing boat's trolling battery that's adequate for several days. Log sheets and a folding plastic picnic table complete the field station. While only one major component of the station must be on an island to meet USIA requirements, my small aluminum fishing boat and New Mexico's lake winds dictate the complete station being set-up on the island.

While not having the prestige of an expedition to a remote IOTA or a highly sought after country, island activation expeditions close to home are budget friendly and can be a ball in a limited amount of time. While I focus on inland islands that are only boat accessible, there are many islands across the U.S. (and even one in New Mexico) that are accessible by bridges. If either end of the USIA island program might appeal to you, check out their web site at <http://www.eng.mu.edu/~usi/>. You may also want to check out the Stars & Stripes Island Awards Program (SSIA) at <http://www.qsl.net/ab5eb/ssia/>. The new SSIA assigns islands recognized by the USGS into groups with any island in the group giving you credit for the group. Thus, SSIA has a finite number of island groups while the number of USIA islands is, for practical purposes, unlimited. In New Mexico for example, SSIA has eight islands divided into two groups. If you are into contests, you can get a jump-start on collecting islands by participating

in the USIA and CISA (Canadian islands) contest during the fourth weekend in August.

What's next for me? With a goal of participating in the activation of 100 new USIA islands, and with perhaps 30 of New Mexico's nearly 80 islands only meeting the criteria after a series of wet years, it looks like I'll have to sneak into the adjacent states to meet this goal. With about 100 "virgin," the 150-mile long Lake Powell in Northern Arizona/Southern Utah is tempting. Especially since the fishing is great. If you are interested in activating some Lake Powell islands, check out <http://www.qsl.net/nm5rc/>. If you are going to be in New Mexico and want to sit on a rock in a puddle, drop me a line. My other goal is to start dedicating some time on each island to bands other than 20 Meters to bounce signals into some new areas.

As a final thought, if the enthusiasm for your niche gets you to take others into the field, pick a time that will have good propagation and treat your team right. New Ham Marc Sanchez, KD5MSS, thought I'd played an April Fools' joke on him when contacts were few and far between on a three-day, six-island effort at the end of March/first of April 2001. This led to Marc's First HF Propagation Hypothesis: The size of the solar flares and how dead that will make the bands is directly proportional to the effort required to get to, and set up, your field station. My captaining of the team led Keith Pfeifferle, N5ZGM, to Keith's First Rule for Joining a Field Operation — Make sure you get a written contract that includes lunch breaks.

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2. The countries contacted must be on *Worldradio's* list of nations. No, you can't send in a list of DXCC countries. There are some similar countries, but

believe us, our list is different than the League's list.

3. Send us a list of your contacts, by callsign, date and time, and band. If you want to send some commentary along, we just might put it in the magazine. We trust our esteemed readers, so we aren't asking for verification from other amateurs, your letter carrier, the local CIA office or the IRS. Just send your list. That's it! We don't even want your hard-to-get QSL cards.

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New award a hit!

Realizing there was no award for the new PSK31 mode, *Worldradio* started to offer a brand new certificate for making 31 contacts with 31 different nations. It's been a popular award, and quite a few have been issued. Here's a list of the first 25 recipients of *Worldradio's* "31 on 31" award:

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3. Armond Noble, N6WR
4. Joel D. Goings, AA4P
5. Peter Jacobsen, K5LJ
6. Steve Byerly, W5AEP
7. Paul Oliver, KC3LE
8. Michael Di Persio, KC2Q
9. Stephen Melachrinis, W3HF
10. Bob Daniel, W9FIF
11. Pete Tiffany, KT4BW
12. Bob Boehm, K8YS
13. Bob Lindstaedt, W6PGK
14. Barry Johnson, W4WB
15. Richard Aducci, K9XU
16. Al Mecozzi, WA8LBZ
17. John Harvey, W9CY
18. Steven Dominguez, N6YIH/7
19. Paul Pareseau, W5RIB
20. Paul Miller, K7VO
21. Marvin Stern, W2AOC
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Old Dominion QCWA Chapter 202 and other area clubs (Bedford, VA), will operate special event station WW2DDM, commemorating the dedication of the National D-Day Memorial in Bedford, VA. Hours of operation are: 1700-2400UTC 6-10 June 2001. Suggested frequencies are: 7.050, 14.050, 21.050, 28.050 MHz (CW), 7.250, 14.230, 21.230, 28.350, 50.222 and 144.222 MHz (SSB). For a QSL or certificate, send a SASE to: Charlie Beckwith, K4BSF, 563 Buzzard Rock Lane, Rocky Mount, VA 24151-4844. Additional information is on the web site: www.usit.net/~pob.qcwa.

D-Day and electronics

The Historical Electronics Museum ARC will again have its special event station, W3GR, on the air 2/3 June. This event commemorates the role of electronics and radio communications in the D-Day invasion of Europe during World War II. Both days, W3GR will be on the air from 1400 - 2100Z. CW and SSB will be on the General/Novice portions of 40, 20, 15 and 10 Meters. The TBL-13 and BC-610 will be on CW. An 8 x 10 certificate will be mailed for QSL cards and two 55 cents in stamps sent to: HEMARC, P.O. Box 746, M.S. 4015, Baltimore, MD., 21203. E-mail: w3gr@arrl.net.

Silent Keys

George Thurston III, W4MLE

Broadcast journalism pioneer, Amateur Radio writer and ARRL field volunteer George Thurston III, W4MLE, of Tallahassee, Florida, died 20 March. Thurston was editor of the first ARRL Radio Amateur's Operating Manual, the author of *QST* "Public Service" columns and at least 10 other *QST* articles from 1951 to 1994. He also won a *QST* Cover Plaque award.

A Virginia native and a victim of tuberculosis as a teenager, Thurston was first licensed in 1947. He went on to become a respected broadcast news reporter and print journalist who covered stories of national and international interest during his career.

In the 1960s, Thurston and Andy Clark, W4IYT, now a Silent Key, who was then SEC of Southern Florida, put into place what is now the Amateur Radio Emergency Service in Florida and established close ties with the National Traffic System.

Thurston served as SEC of the Northern Florida Section, from July 1990 through November 1996, and is credited with helping to strengthen the ARES organization in the section. W4MLE also was an ARRL Official Relay Station and a past president of the Tallahassee ARS.

As a free-lance broadcast journalist, Thurston spent two decades in the state capital press corps, including many years as bureau chief for the Washington Post-owned stations in Florida.

In 1959, Thurston was the first broadcast journalist to cover the Florida Legislature full-time. He also inaugurated the first live television broadcasts from the legislative chambers. Thurston later covered the arrest, conviction and execution of serial killer Ted Bundy. He also worked as a correspondent for *Time*. — *ARRL Letter*

Edward R. Doubek, N9RF

ARRL Technical Advisor Ed Doubek, N9RF, of Naperville, Illinois, died 19 March at his home. Doubek had served as a Technical Advisor for 10 years and remained active in that capacity until his death, helping his fellow amateurs to resolve problems with interference as well as answering questions about digital topics, antennas, linear amplifiers, transceivers and a host of other technical questions. Doubek also regularly reviewed and supplied feedback for some ARRL publications, including *The ARRL Handbook for Radio Amateurs*. — *ARRL Letter*



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An XYL-friendly station

Jack McKenzie, N5MFG

We bought a brand new 2001 Airstream Motorhome and the first thing the XYL said was, "We are not going to crap it up

with all that radio equipment again!"

So, I set out to design a compact "now-you-see-it, now-you-don't" station. I chose (read was given) an overhead locker of exactly 12 X 24 inches and 14 inches deep. Not very big, but

I have crammed in a Kenwood 120 transceiver, an Ameritron AL-600 solid state amplifier, a Palomar Engineers M-840 SWR/Power Meter, a KO6YD SAMs screwdriver memory control module, an antenna erecting switch, a MFJ-1702C antenna switch, low pass filter and a MFJ-259B SWR Analyzer. The power supplies for the transceiver and the amplifier were remotely located under the couch after extending their cables an additional nine feet.

The screwdriver erecting device was, in an earlier life, the gear box and motor that raised and lowered an automobile window. To operate, I open the cabinet, raise the antenna, dial in the SAM memorized antenna setting, tune up the transceiver and sit on the couch and talk using the microphone hanging down from the cabinet.

Of course I use headphones early in the morning, I sure don't want to wake up the XYL — that will ruin the whole day!

Amateur Hi

Send *Worldradio* a funny story about your adventures in Amateur Radio and the staff will choose a winner among entries received. You could win a free one-year subscription to *Worldradio*! Amateur "HI" submissions are judged on the number of laughs emitted by the staff. Amateur "HI" submissions must be true stories. Any story starting with, "Once upon a time," or "I knew this guy who," probably won't make the cut!

"Green stamps"

Joseph M. Plesich, W8DYF

One night, at our local radio club meeting, some of us were sitting around discussing working DX. Mike, a new, enthusiastic Ham, who had become quite active in the short time he had been licensed, was asking one question after another.

In the course of the discussion, QSLing came up, and we tried to give him some pointers on this aspect of DXing. One point made was that sometimes, to obtain a QSL from some DX stations and DXpeditions, that one should enclose a "green stamp" or two when you send your QSL card. Mike left the meeting all fired up about working DX and getting QSL cards. A few days later, I was talking to Mike

on our local repeater. I asked Mike, who was mobile, where he was headed. Mike replied that he was on his way to

the post office to mail some QSL cards, and while he was there, he thought he'd also purchase a few "green stamps" for the QSL cards.

I guess I could have let him go to the post office and get embarrassed, but that is no way to treat a new Ham. So, I told him about "green stamps," and we had a good laugh. Perhaps, we should all be a bit more careful and helpful with new Hams until they learn our funny and sometimes strange "Ham language."

(Ed. — to non-Hams. The term "green stamp" refers to a \$1. bill — a denomination of United States currency that used to actually be worth more than it is today. Remember when gasoline was less than a dollar a gallon?)

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Letters to the Editor

The future of Amateur Radio...

Jim Wades, "The Future of Amateur Radio" in the April 01 issue of *Worldradio* is a masterpiece. It should be required reading of every Amateur Radio operator and all officers and board members of the ARRL. Unfortunately this type of advice never seems to be read by those who need it the most. I can just see the mountain of e-mail and letters pouring in from the narrow minded that still don't get it. For too long many of us have felt that our hobby was intended mostly as a fun experience for its members, and they also could use a few volunteers for service work.

Jim is correct. Hard choices need to be made especially when it comes to raising standards and demanding that every prospective Ham complete a well conducted learning course. Is it really necessary to have answers to all the questions provided? The quality of Amateur Radio needs to be raised several levels very soon, if it isn't too late already. Too many have been kidding themselves for a long time.

Dave Van Der Weele, WA3L
(via e-mail)

Me thinks James Wades, WB8SIW, in "The future of Amateur Radio?" speaks out of both sides of his mouth. On the one hand he says "We have spent so much time arguing about CW over the past ten years, we have lost a decade in the race to preserve our wonderful hobby." Then he fills his article with put-downs of the no-code folks and promoting a pro-code stance. Is he victim of the disease he himself diagnoses?

Jerry Marsh, AA7UF
(via e-mail)



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More on attitudes...

The letter from K8IHQ has blown all my self-control fuses: I have to wonder if Mr. Markle really appreciates what he is asking for. In addition to his obvious expertise in Morse code, he also must know how to read five-level punched paper tape without putting it through a printer, since RTTY is such a part of our heritage. He has, of course, re-taken the exam for Extra recently so he knows what is in the exams, plus of course adding to his credibility immeasurably. That would include all that tacky foolishness about "R = jX" and such that is so much a part of the CB world, right? And in line with that, he has built his own equipment for all bands, not just the limited HF that most amateurs call "all-band." How is he on FM ATV on 10 GHz? DSP — can he explain decimation? Digital TV on any legal band? Has he ever participated in a mass-casualty incident drill? Or a real wildfire? Has he ever legally operated on a commercial or emergency band?

Although I am an engineer by job title (and 25 years experience, plus 15 more as a technician) I got there through my own efforts — my original bachelor's degree is in Asian history. I am not a design engineer, just a poor dumb manufacturing quality engineer trying to make a bunch of widgets that work right when the customer gets them. Along the way I picked up a real first-class radiotelephone ticket from a real FCC office (in 1960, and they didn't ask for a demo of operating techniques then, either), as well as a certificate from the American Society for Quality as a certified quality engineer. But no double-E degree, sadly.

Despite that, I enjoy Amateur Radio so I work at it. I am a no-code tech, just coming up on 10 years, and my only reason for getting the ticket in the first place was that I had done a lot of things in electronics and I felt I probably ought to prove myself a little. RACES looked like fun and it has turned out to be the entry to a lot of very interesting activities. I have built some of my own equipment in VHF and UHF, I have participated in

a mass-casualty drill and a very scary Columbine High School simulation with a couple of hundred SWAT team officers, I have successfully worked with the city professional emergency dispatchers on their frequencies and business, I have worked a serious wildfire as the shadow for a battalion chief, and yes, I did memorize the Baudot code for paper tape once. I have worked on ATV (though not digital yet), I have a half-understanding of DSP (ask me about my decimation!), and my next step is into microwaves. I have also picked up a lovely collection of CSCE's for elements 3a, 3b, 4a, 4b, and now just elements 3 and 4, all expired.

So I say to you, Mr. Markle, enjoy yourself on 40-meter CW with the rest of the special amateurs like yourself — my grandfather would stand in awe of your prowess. You won't be hearing from the rest of us CB-Hams with the no-brainer tickets. We're busy doing interesting technical things.

John A. Amos, KC6TVM
San Jose, CA

P.S. What kind of a military officer were you? Last time I checked, officers got either commissions or warrants, but no one could be both at the same time.

In the "Letters to the Editor" section of the April 2001 issue of *Worldradio*, Carl Markle, K8IHQ, expressed his opinions of the whining and whimpering of the "latecomers: to Amateur Radio."

You then followed up Mr. Markle's letter and opinion and, because you have the liberty and freedom to do so, penned a bashing retort to Mr. Markle, and then close with a typical editorial remark about the "attitude" of Mr. Markle.

Be advised that there are a lot of us across this country whom agree with Mr. Markle. Having been licensed some 27 years, I share his feelings about the "CB'er" amateurs and the lowering of the Amateur Radio testing standards. I also see a younger generation coming up who want everything given to them and sadly, not work for anything.

I see it six days a week when I check into a long established traffic net and having to listen as a roundtable group moves in within 2 kHz due to a recent FCC ruling that traffic nets are not entitled to a clear frequency. By the way, these QRM'ers who don't care are mostly newer licensed amateurs — the same "late comer" class of amateur that Mr. Markle wrote about.

In closing Mr. Editor, I would strongly encourage you to keep your editorial

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comments to yourself and not bash someone who has a different opinion than yours.

Ever thought about moving to Russia? *Pravda* is looking for editors, too.

**Richard "Dale" Dishon, KR5Z
Tennessee Colony, TX**

For convenience, we humans tend to generalize everything. If we happen to belong to a particular group and one of its members makes slurs on the soap-box, the tendency is for others to assume that he, (or she) reflects the feelings of all of the members of that group. This greatly disturbs me.

We were all beginners at one time and learned from our mistakes. Having been in Amateur Radio when transmitters were built on bread boards with 210 tubes and copper tubing tank coils, I think I qualify as an old-timer. The old-timers of that period had been spark operators. They may have had a laugh at my expense when I made a mistake, but they were always helpful and kind to me. Grateful for their guidance, I always respected and looked up to them. How things have changed.

Judging from what I read in the "Letters to the Editor" page, all of us old-timers today are likely to be pre-judged as being a bitter bunch living in the past, that instead of being helpful, would rather make derogatory slurs about newcomers to the hobby. I can not deny being an old-timer, but do deny being associated with them or that they speak for me. I have always enjoyed helping newcomers. It seems to me that some folks have either forgotten that there was a time when they knew little and someone helped them or else they never heard of the Golden Rule.

**Burt Syverson, K5CW
Plano, TX**

For your information, Carl is not far off the mark. We SHOULD help newcomers and encourage technical proficiency, BUT I've been licensed for over 40 years now. I'm not active, don't have a piece of radio gear, and likely never will again. When I listen to all the crud on the bands today, 80M with all the racist, regional, stupid ranting, LIDS not listening in DX pileups, HAMS who can't copy code, HAMS who would never dream of taking the cover off a radio to trouble shoot it, blah, blah. All this is a result of what you and the ARRL and all the other entities who make a living off Amateur Radio have encouraged and sought after.

You have been directly responsible for the dumbing down of license examinations, elimination of CW, and the encouragement of those whose only interest is to gab on a radio. Well, you've got it now. The reason Amateur Radio is not attractive to many is because of the constant whining and discord among factions and the fact that there are few if any challenges. Just memorize some questions, get a 70% on the exam, and presto!, you are a radio expert. When eight year old kids with no, repeat no, experience in electronics can pass the Extra Class exam, something stinks and it ain't in Denmark. I'm not sure why I am even bothering with this e-mail. It won't change anything and you and the others who live off Amateur Radio will keep on doing whatever you can to milk a few more dollars out of what used to be a grand, prideful, challenging avocation.

**Jim Brassell, K4ZMV
(via e-mail)**

(Ed. — All of the opinions about my reply to Mr. Markle are duly noted, and I thank you for your letters.

Here's the problem as I see it. I have printed letters in the past bemoaning the treatment of recently licensed Amateur Radio operators by our senior members of the service. When you go to your club meeting, does everyone stand and state their name and callsign? When a new Ham gives his/her name and callsign does anyone in the group reach over and shake hands and welcome them to the group? Probably not. That brand new Ham is seeking acceptance from the group. How many members pay absolutely no attention to the new member or visitor? By being ignored and shunned by those who have been around for a long time, the impression given is that no one cares if the new member is a part of the club or not. That new Ham is there because they want to be accepted as a Ham, and they're usually willing to learn everything they can about the hobby.

Some of our 'seasoned' Amateur Radio operators have taken the attitude that the new Hams are dumber than tree stumps and don't have the capabilities to be a 'proper'

Amateur Radio operator. How are they going to learn anything if the 'seasoned' amateurs are unwilling to teach them everything they know about Amateur Radio?

There is one thing I would like the 'seasoned' operators to consider. Think back to the time you were becoming interested in Amateur Radio. Did someone offer to show you the ropes? Or were your inquiries ignored? Did you have the chance to take a class in electronics or radio theory in school? Call your local high school, and ask to speak to the electronics teacher. I'd bet the reply will be, "I'm sorry, we don't teach electronics at this school." The kids today just don't have the opportunities some of us had. Times have changed, folks!

Bad attitudes about new licensees are infectious — but so are good attitudes. I have always been willing to share what I know with others, and I think it's about time we stop this 'us against them' attitude and do all we can to promote this fabulous hobby to anyone showing an interest.

Now, I may be wrong (that's nothing new!), but I'm one of those who want to promote this hobby any way possible.

Let me ask all of the 'seasoned' amateurs one final question, then I will remain silent on this issue — if your grandson or granddaughter surprised you with an on-the-air contact and announcement that they had obtained a license by studying and memorizing the exam questions, would you have the same attitude with them as you do with the so-called "CB-Hams" that obtained their licenses in the same exact fashion? Or would you be proud as a peacock and offer to help them advance their knowledge in any way you could? I'll bet you are going to offer a guiding hand! Now what is the difference between your grandkids and the others?)

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W-100-N

The following DXers submitted successful applications for *Worldradio's* Worked 100 Nations Award during the month of March 2001.

597. Ira N. Sacher KB2DJJ
 598. Timothy A. Hunt WA6TNW (All CW)
 599. William B. Kephart WD8RTW (All 10M CW)

CATZ

In addition to our W-100-N award the following two DXers completed the necessary requirements for our kitty award, Contact All Time Zones:

39. Kenton A. Dean HB9DOT (All CW)
 40. Dennis A. Russell, Sr. W7RUS

Monaco (3A)

Stefano Mannelli, IW5BZQ, tells us of an upcoming DXpedition to Monaco, 1-3 June 2001. Activity will be mainly on 6 Meters (grid square JN33RR) but will also include 2 Meters and the HF bands. The operators include:

Fabrizio, 3A/IK5GQK; Giuseppe, 3A/IK5YOJ; Stefano, 3A/IW5BZQ; and Virginio, 3A/IW5EDQ.

Activity on 6 Meters will be at 50.210, 50.600, and 50.620 MHz, for SSB, RTTY, and PSK31, respectively. On 2 Meters look near 144.290 MHz SSB. They didn't mention operating frequencies for HF, but plan activity on SB, RTTY, PSK31, and SSTV.

You can send e-mail to 3a@mannelli.com for schedules and when they will be on the air as they will be checking their e-mail on the hour. See their website at: <http://www.mannelli.com/3a>. QSL requests go via IW5BZQ (6 and 2 Meters), and

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Comoros Islands (D6)

That big DXpedition to the Comoros Islands (AF-007) in February broke all records with a total of 168,722 contacts. For more information on this D68C operation log onto <http://www.dxbands.com/comoros>.

Palestine (E4)

According to *425 DX News* Gunter, OE1GZA, plans to be active on Saturdays from Ramallah. He is presently active 10 through 30 Meters and soon will be on 40 and 80. Gunter should be available as E4/OE1GZA through the end of 2002.

Saudi Arabia (HZ)

According to *The Daily DX*, Joe Musachia, W5FJG, (formerly KA5ZMK), is working for the U.S. State Department as a communications technician currently assigned to the American Consulate in Jeddah, Saudi Arabia. He has received permission from the Saudi Government to operate from the Consulate using the call 7Z1AC. He will be operating for the next two years. Refer to his web page at <http://sites.netscape.net/joeyjeep99usa/homepage>, which will have logs and operating updates. QSL requests should be sent via WA4JTK and include the courtesy SASE.

St. Peter & St. Paul Rocks (PYØS)

The PWØS DXpedition to St. Peter

and St. Paul Rocks (SA-014) is now history. I discussed this item in last month's column and this one deserves further mention. According to Bill Smith, W9VA, the PWØS coordinator, there is a reason for PYØS being number 26 on the *The DX Magazine* "most needed" list. Bill says that under optimum conditions it is difficult to get to, difficult to land on, difficult to find a level area to set up a station, just plain difficult. The risk of damage to equipment and bodies is not insignificant.

One dedicated group of Brazilian DXers, Jim, PY7XC, Ciro PY7ZY, and Eli, PT7BZ, started out from Recife on 3 February for the rocks stopping briefly at Fernando de Noronha for a rest and minor repairs. While there, Andre, PYØFF, decided to join the group. They arrived at The Rocks on the morning of 9 February and found the sea much too rough to even consider landing. This was rather frustrating at arriving one of the rarest DX sites in the world with a boat full of equipment and being unable to land. The bobbing around in this small boat for three more days while waiting for a break in the weather made it worse.

The seas subsided enough on the morning of 12 February to attempt a landing, and they were able to get some equipment ashore and operating by 2100 UTC. The bad weather continued with high winds, lightning and rain, frequently interrupting operations. Because of the three-day delay in landing, by 16 February the group was already way overdue getting home to their families and jobs and supplies were running out. The weather was such that they could safely get themselves and equipment off the Rocks, and the sensible decision was made to leave. Their bad luck continued as the boat encountered problems on the way home, and it was necessary for three operators to fly from Fernando de Noronha to Recife, further adding to the expense.

The final count was around 7,800, well below expectations, but still 7,800 contacts that would have not been made at all without incredible courage and devotion to our hobby.

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Cambodia (XU)

The Daily DX reports the German group going to Cambodia in late July plan to operate from Angkor Wat, 16-19 July for a small, limited, high band operation. They will then relocate to Sihanoukville where they will put in a full effort on all bands from 6 to 160 Meters with an emphasis on the low bands. The 4-man team will be active on SSB, CW, RTTY and PSK31. Team members include Frank, DL4KQ (low bands, CW); Siegfried, DL8KBJ (SSB); Angelo, DC9KZ (SSB, RTTY, PSK31); and Bernd, DL5OAB (CW). QSL via DL4KQ either via the bureau or direct to Frank Rosenkranz, Blumenstr. 25, D-50126 Bergheim, GERMANY. For direct requests send SASE and green stamps. \$2 will get a QSL back via airmail or \$1 will get QSL via normal mail. QSLs without SAE will go via the bureau. Those needing Cambodia on any bands or modes should check out their web page at <http://www.DL4KQ.de/> and place your votes!

IOTA

Roger Balister, G3KMA, releases the following list of IOTA operations that had provided acceptable validation material to the IOTA Committee:

AS-062 RUØLM/Ø	Shikotan Island (November 2000)
EU-063 JW5RIA	Hopen Is. (May 2000 - January 2001)
OC-046 FOØKUN	Tahiti Island (January 2001)
OC-067 FOØKUN	Bora Bora Island (January 2001)
OC-202 DX4RIG	Tinaga Is., Calagua Is. (April 2000)
OC-243 VK6BSI	Breaksea Island (January 2001)
SA-088 PV5IOTA	Santana De Fora Island (August 2000)
SA-088 PV5L	Santana De Fora Island (August 2000)

If you have internet access you may look at Roger's website at <http://www.eo19.dial.pipex.com/index.shtml>.

According to 425 DX News a Belgian group of DXers, known as "The Minkies Boys" will activate Sein Island (EU-068) from 25 to 30 July, including the IOTA Contest. Look for them signing with TM5CK and F/ON6CK/P.

From 23 to 27 May Santo Stefano Island (EU-045) will be on with the special call of IBØS. I assume they will participate in the CQ Worldwide WPX Contest that weekend.

Rick Kaplan, KL7AK, will activate Sitkinak Island, part of the Trinity Islands (NA-053) this summer. Rick says they hope to be on the island



Even DX editors need to get their cards checked. One of the popular features at the Visalia DX convention was DXCC card checking. John F.W. Minke, III, N6JM, is having his cards checked by the ARRL's contest official, Dan Henderson, N1ND.

starting 9 August until approximately 14 August.

They will be signing with Rick's home call with a Yaesu FT-900 HF transceiver with an Ameritron AL-80A amp, using a Hy-Gain TH2Mk3 (10-15-20) Yagi on a 30-foot mast. The backup antenna system will be two G5RV antennas mounted as inverted-V's atop the 40-foot mast facing East/West and North/South. The backup radio will be a Kenwood TS-50S.

Plans are to mainly operate on or near the IOTA frequency of 14.260 MHz. CW contacts will be made upon request (pileup permitting). QSL

requests to Fred Stenger, N6AWD.

And here is the monthly selection of IOTA activity found during the month of March. With the approach of warmer months notice that this activity is increasing.

AF-083 3V8DJ	Djerba Island	27-31 Mar
AN-006 EM1HO	Galindez Island	10-21 Mar
AS-005 RAØBX	Dickson Island	10 Mar
AS-008 JA1CKE/1	North Izu Islands	17 Mar
AS-012 JI3DST/6	Kyushu Coastal Is	31 Mar
AS-015 9M2/J11ETU	Penang Island	23-31 Mar
AS-015 9M2KT	Penang Island	31 Mar
AS-015 9M8DX/2	Penang Island	14-15 Mar
AS-017 JS6PXB	Okinawa Island	14 Mar
AS-025 UAØ1A/Ø	Kuril Islands	07-25 Mar
AS-025 UAØZAL/Ø	Paramushir Island	04-17 Mar
AS-026 HL4HLD	Cheju Island	23-31 Mar
AS-028 UAØQBA	Kotelny Island	01-24 Mar
AS-032 JA6CTW	Yaku Island	01-27 Mar
AS-040 JH6TYD	Goto Island	09-21 Mar

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DX Prediction — June 2001

Maximum usable frequency from West Coast, Central U.S. and East Coast (courtesy of Engineering Systems Inc., Box 1934, Middleburg, VA 20118). The numbers listed in each section are the average maximum usable frequencies (MUF) in MHz for contacting five major areas of the world centered on Africa—Kenya/Nairobi, Asia—Japan/Tokyo, Oceania—Australia/Melbourne, Europe—Germany/Frankfurt, and South America—Brazil/Rio de Janeiro. Smoothed sunspot number = 108. Chance of contact as determined by path loss is indicated as bold *MUF for good, plain MUF for fair, and in (parentheses) for poor. UTC in hours.

CENTRAL U.S.A.

UTC	AFRI	ASIA	OCEA	EURO	SO
8	(20)	*21	*22	*19	*19
10	23	19	*20	*21	*21
12	27	21	*18	*24	*28
14	30	*23	*17	*26	*33
16	33	(17)	17	*27	*37
18	*34	(17)	16	*28	*39
20	*34	22	32	*26	*41
22	*28	25	*39	*22	*38
24	24	*27	*41	*20	*34
2	*21	*27	*41	*17	*28
4	*23	*26	*39	*15	*24
6	*24	*25	*33	*19	*21

WEST COAST

UTC	AFRI	ASIA	OCEA	EURO	SO
10	23	*20	*20	21	*24
12	26	*17	*18	22	21
14	29	*19	*17	24	*29
16	31	*20	17	*26	*34
18	*33	*23	16	*26	*37
20	*34	*27	*33	23	*40
22	*28	*28	*39	19	*37
24	24	*29	*41	16	*33
2	21	*29	*41	14	*27
4	*23	*28	*39	19	*23
6	28	*27	*34	23	*21
8	23	*25	*22	21	*19

EAST COAST

UTC	AFRI	ASIA	OCEA	EURO	SO
7	23	19	*25	18	*20
9	26	19	*21	*21	*20
11	*32	22	*19	*24	*28
13	*37	*24	(18)	*26	*33
15	*40	*21	(17)	*28	*37
17	*41	18	(16)	*28	*39
19	*37	21	(22)	*27	*42
21	*30	24	36	*25	*39
23	*26	26	*40	*22	*35
1	*22	*27	*41	*20	*29
3	*19	25	*40	*15	*25
5	*27	23	*34	*19	*22

EU-129 DJ5AA/P	Usedom Island	30-31 Mar
EU-129 DL8DZL/P	Usedom Island	30 Mar
EU-131 IK3PQH	Lido Island	18-24 Mar
EU-133 R1ASP	Kotlin Island	26 Mar
EU-133 RZ1AK/P	Verperluda Island	07-09 Mar
EU-133 UA1C10/P	Verperluda Island	07-08 Mar
EU-151 EA5KB	Moro Island	10-11 Mar
EU-170 9A4A	Pag Island	12-30 Mar
EU-171 OZ2ZB	Nordjylland Island	11 Mar
EU-171 OZ2BB	Mors Island	04-27 Mar
EU-171 OZ11IT	Mors Island	26 Mar
EU-188 UE1RCV/1	Sengeyskij Island	27-30 Mar
NA-034 W8INA	Santa Maria Island	14 Mar
NA-035 HR6SI	Swan Island	18 Mar
NA-036 VA7DJ	Vancouver Island	27 Mar
NA-036 VE7IM	Vancouver Island	15 Mar
NA-055 AK1L	Vinalhaven Island	02-26 Mar
NA-059 KL7/NO7F	Unalaska Island	22-26 Mar
NA-062 WQ4J	Key Largo	27 Mar
NA-062 W2SF/P	Lower Matecumbe Island	07-30 Mar

NA-065 W7OG	Whidbey Island	08 Mar
NA-080 C6AKK	Treasure Cay	29 Mar
NA-085 WA4ET	St George Island	09-10 Mar
NA-085 K9PPY/4	St George Island	27-28 Mar
NA-110 AA4V	Isle of Palms	10 Mar
NA-110 K9JWV/P	Morris Island	31 Mar
NA-116 T15BX/8	Chira Island	12 Mar
NA-116 TE8AA	Chira Island	18-29 Mar
NA-128 VE2DDK	Ile d'Orleans	18-25 Mar
NA-142 K9PPY/4	Santa Rosa Island	24-27 Mar
NA-143 AB5EB	Galveston Island	09-27 Mar
NA-180 V31GI	Glovers Reef	12-16 Mar
OC-004 VK9EHH	Lord Howe Island	10-22 Mar
OC-011 V63TN	Truk Island	14-21 Mar
OC-027 FO5QG	Nuka Hiva Island	28 Mar
OC-033 EK8HZ	Lifou Island	08-30 Mar
OC-050 FO/DDL7FT	Ruruto Island	30-31 Mar
OC-067 FO5QS	Huahine Island	08-11 Mar
OC-075 YC5YAS	Batam Island	27 Mar
OC-075 YC5NOF/P	Batam Island	01-15 Mar
OC-095 3D2SC	Naitaubu Island	21 Mar
OC-100 Y4ORW	Lara Island	22-29 Mar
OC-129 KB2FB/DU7	Panglao Island	22-31 Mar
OC-130 DU8ROF	Mindanao Island	25 Mar
OC-130 DU8DJ	Mindanao Island	15-30 Mar
OC-131 FOØARE	Manihi Island	05 Mar
OC-137 VK4CY	Lamb Island	16 Mar
OC-139 VK5IO/M	Kangaroo Island	20 Mar
OC-144 YC4FIJ	Balitung Island	01-28 Mar
OC-147 YC8BJK/9	Biak Island	02-05 Mar
OC-149 H44NC	New Georgia Is.	16-30 Mar
OC-162 H44MS	Shortland Islands	07-10 Mar
OC-195 VK7KP	Flinders Island	10 Mar
OC-195 VK7WR	Flinders Island	27 Mar
OC-201 ZL1DD	Waiheke Island	10-27 Mar
OC-245 YC6PLG/P	Mursala Island	15-18 Mar
OC-245 YC6LVS/P	Mursala Island	15-18 Mar
OC-245 YC6JKV/P	Mursala Island	15-18 Mar
OC-245 YC6LAY/P	Mursala Island	15-17 Mar
SA-008 LU8XW	Terra del Fuego	22 Mar
SA-008 CA8VOW	Terra del Fuego	21 Mar
SA-012 YV7QP	Isla Margarita	14 Mar
SA-028 PY1NEW/2	Sao Sebastiao Island	15-17 Mar
SA-028 PY1NEZ/2	Sao Sebastiao Island	15-18 Mar
SA-029 PY1XP/P	Itacurua Island	01-30 Mar
SA-030 CWØZ	Flores Island	04-08 Mar
SA-035 YV5/NESZ	Los Roques Islands	31 Mar
SA-068 8R1AK/P	Wakenaam Island	04-07 Mar

AS-043 7K3EOP	Hachijo Island	14-15 Mar
AS-045 HL5FUA	Ullang Island	01-10 Mar
AS-051 9MØC	Spratly Islands	01 Mar
AS-051 9MØM	Spratly Islands	01-08 Mar
AS-053 HSØ/IK4MRH	Phuket Island	05-31 Mar
AS-056 JA6GXX	Meshima	02-05 Mar
AS-062 RUØLM/Ø	Shikotan Island	01-30 Mar
AS-103 BV9AYA	Penghu Island	28-29 Mar
AS-103 BNØW	Penghu Island	23-26 Mar
AS-117 JH4TEW/4	Honsu Coastal Is	02-17 Mar
AS-155 BV9L	Liuchiu Yu	02 Mar
AS-155 BV9O	Orchid Is. (Lan Yu)	15-19 Mar
EU-008 GMØEWX	Isle of Skye	10-21 Mar
EU-009 GM3IBU	Orkney Islands	14 Mar
EU-010 GMØEEY	Benbecula Island	08 Mar
EU-012 GM4CHX/P	Shetland Islands	31 Mar
EU-016 9A4KF	Hvar Island	13-30 Mar
EU-016 9A2GF	Brac Island	13-26 Mar

EU-016 9A2VQ	Brac Island	21-22 Mar
EU-029 OZ7AD	Falster Island	16 Mar
EU-031 IC8WIC	Isle of Capri	08 Mar
EU-034 ESØIC	Kassari Island	18 Mar
EU-036 LA2FKA/M	Averoy Island	18 Mar
EU-036 LA8LA	Hitra Island	30 Mar
EU-042 DK8OL	Isle of Sylt	04-18 Mar
EU-046 LA5QFA	Vanna Island	15 Mar
EU-047 DJ9IN	Norderney Island	22 Mar
EU-049 SV8DCY	Lesvos Island	19 Mar
EU-055 LA2BKA	Reksteren Island	08-26 Mar
EU-057 DL5KUD	Reugen Island	27 Mar
EU-060 SV2FPU/8	Skyros Island	15-31 Mar
EU-063 JW3FL	Hopen Island	01-29 Mar
EU-064 TM2A	Noirmoutier Island	31 Mar
EU-082 UTZAA	Barents Sea Coast West	14-26 Mar
EU-126 OH9AR/P	Kuusiluoto Island	07-09 Mar

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Well deserved!

Floyd Gerald, N5FG, announces, "On behalf of DXers world-wide, the Magnolia DX Association (www.mdxa.org) has sent an appreciation plaque to Chuck Brady, N4BQW for his one-man operation as 3YØC.

"We just wanted Chuck to know how much the DX community appreciated his one-man operation from Bouvet

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REMARKS
many thanks
QSO at QSO
best result

manager for 5A1A and other activities by Abubaker. Alex requests that QSL requests be sent direct him at: Schoener 85, 2991JK Barendrecht, THE NETHERLANDS.

Hugh Phillips, K7XM, says, "DXers, I'm receiving QSLs

Low Band Monitor (KØCS), *The Daily DX* (W3UR), and QRZ DX (N4AA).

Near the end of March I received a QSL for a contact with RKØFWL/P (AS-149) along with cards for four other DXers in California. It wasn't so much the extra postage I had to come up with but the effort to look up the four calls and address the envelopes. This apparently is a growing trend among DX operators to cut postage costs, but at another's expense.

However, I felt it my duty as a fellow DXer to forward the cards. If this ever happens to you I, hope you will do the same and not throw the cards in the trash! Don't assume that SASEs were not provided. 73 de John N6JM.

—John F.W. Minke, III, N6JM, can be reached by mail sent to: 6230 Rio Bonito Dr. Carmichael, CA 95608 or by e-mail to: n6jm@pacbell.net.

Island. Chuck endured many hardships and much improvising to allow many thousands of DXers world-wide to make a contact with the VERY rare DXCC entity. "A 'hearty GOOD JOB Chuck' from all the deserving!"

Antique QSL department

We shall continue this month with old QSL cards from the collection of Don Leslie, W6FMX. All date from the final years of the 1930's when Don was signing W3EGS in southern New Jersey.

When Don worked ZB1E of Malta on 21 March 1939 it was still controlled by the British. Robert F. Galea was the operator for this 20-meter CW contact and the card was mailed direct with a Maltese stamp.

Many QSL cards were a work of art, such as that for the one of ON4AW from Antwerp. The date of this contact was 3 June 1938. The card is printed in brown with red call letters.

Herbert Osborne of London was the operator of British Amateur Radio Transmitting Station G5NC, who Don worked back on the 7th of June 1939. This card is printed in red and blue.

QSL information

Bob Schenck, N2OO, says that all contacts with 9M6AAC must be confirmed through him, regardless of what you hear otherwise.

Alex van Hengel, PA1AW, says that although he is the QSL Manager for 5A24PA, he is NOT the QSL

To RADIO W3EGS
UR SIGS RST 577K
ON 3.6.1938
IN 20 mtr band
AT 18.00 GHT

Belgium
ON4AW
MMI TNX FR FE QSO
MPE CUAGN ES BEST
73'S ES DX DR OB!

W.A.C.

XTER ODFOPA 50 W
RVER SUPER 8 VALVES
PSE QSL VIA R.B. OR VIA QRA.
JAN SIMONS-NEIR 65

for 9MØM. The correct route is K7XN, not K7XM." I'm sure other DXers have had this problem. When recording QSL managers it is a good idea to double check before continuing.

Thanks go to the following contributors for this month's column: G3XYP, IW5BZQ, KL7AK, PA1AW, N2OO, N5FG, K7XM, Western Washington DX Club (WAØRJY), Northern Arizona DX Association (W7ST), WebCluster (OH2AQ), 425 DX News (I1JQI), The OPDX Bulletin (KB8NW), DX-News (NJDXA), The

British Amateur Radio Transmitting Station

G5NC

TO RADIO W3EGS Confirming CW/Fone QSO
on Mc at GMT on 7th June 1939
Your CW signals were RST 577K 9
Your fone was Q R Mod
Thanks for the QSO and 73 from
HERBERT OSBORNE,
R.S.G.B. BERU.
77 BARRETT ROAD, WALTHAMSTOW, LONDON, E. 17

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3A2DX pirate	D70IAF HL1IWD	JW9GY LA9GY	VP5/K5CM K5CM	YO/DJ6OI DJ6OI	LU4FMRadio Club Rosario, Zeballos 811/817, 2000 Rosario, Argentina
3D2AG/P 3D2AG	DL2AAZ/6Y5	JW9IY LA9IY	VP5/W5AO W5AO	YS1JR DJ9ZB	LU5FCJesus Rubio, San Juan 2694, Rosario 2000, Santa Fe, Argentina
3E500ACHP1RCP	DL2AAZ	JX8XM LA8XM	VP8SGK GM0HCQ	Y77A YU7GMN	N200Bob Schenck, P.O. Box 345, Tuckerton, NJ 08087, USA
3E500BYSHP1RCP	DL7DF/HI9 DL7DF	JY9NX JH7FQK	VU2TS 1Y1RL	YV5/NE8Z NE8Z	N4AACarl Smith, P.O. Box 249, Leicester, NC 28748-0279 USA
3E500CTM	DU1/DL4OCMDJ6OI	KH0/JM1LRQ	XV3AA JA6UHG	YW6AZ EA5KB	NE8ZRick Dorsch, P.O. Box 616, Hamburg, MI 48139, USA
HP1RCP	DU1/DL4OCM/7	JM1LRQ	XV3JAA JA1TAA	YW4M W4SO	OH1BVTeuvo Kaistila, Ahventie 5B1, 25410 Suomensarvi, Finland
3E500EHP1RCP	DJ6OI	KH2/KD6CJF	XV3MRC JA1TAA	YZ1V YU1AAV	OH8TAOulun Teekkarien Radiokerhory, Yliopistokatu 40, FIN-90570 Oulu, Finland
3G0Y DK7YY	DU3NXE W3HNK	JH5OXF	XV3TAA JA1TAA	ZB2JS/M G4SOK	OH9RJAaro Hyvarinen, PL 53, 85401 Tornio, Finland
3V8DJ I5JHW	DU67RWV DJ6OI	KH2VF JE1HJA	XV9TH SK7AX	ZC4BS G4KIV	PA1AWAlex van Hengel, Schoener 85, 2991JK Barendrecht, The Netherlands
3V8SM DL1BDF	E20HHK E21EIC	L40F LU4FM	YB0ABB M0CMK	ZC4DW G0DEZ	PA3GIOBert vd Berg, Parklaan 38, NL-3931 KK Woudenberg, The Netherlands
3V8SQ DL1BDF	E20RRW E21EIC	LP1F LU5FC	YB0ECT K5ZE	ZD7K GW0ANA	PP5QMario Marquardt, P.O. Box 212, 89201-972 Joinville - SC, Brazil
3V8ST DL1BDF	E21EIC/8 E21EIC	LR0N LU2NI	YB1AQQ N2KFC	ZD8K GW0ANA	PS7JNJoachim das Virgens, Rua Carlos Serrano 1969, 59076-740 Natal - RN, Brazil
3V8SZ IK5JAN	E21EJC HS1CHB	LR7DX LU8FDZ	YC0LCF W4JS	ZF2MV W8MM	PZ1DVRon E. Hoepel, P.O. Box 9006, Paramaribo-South, Suriname
4F1RWW DJ6OI	EA3TE ex EA3AXD	LX/DL4OCM DJ6OI	YCOLND IZ8CCW	ZL4CC G3PJT	RA0FYUuri M. Burykh, P.O. Box 12, Yuzhno-Sakhalinsk 693023, Russia
4F7RWW DJ6OI	EA3URT EA3TE	LX6GDH LX1NO	YC1WAE K5ZE	ZX0F W3HC	RZ10AVladimir Sadakov, P.O. Box 48, Arhangelsk-40, 163040 Russia
4K6GF TA2ZV	EA8AH OH1RY	OD5/OK1MUOK1TN	YC3OX IZ8CCW	ZX5J VE3HO	TA3YJNilay Mine Aydogmus, P.O. Box 876, 35214 Izmir, Turkey
4O1J YU1JW	EA9LZ EA7JB	OD5IU LX1NO	Y04FIJ YC9BU	ZX5X PP5MQ	UA6MFvan A. Gudima, P.O.Box 4102, Rostov-on-Don-103, 344103, Russia
4O7A YU7AV	ED1RRL EA1CA	OH8T OH8TA	YCAABQ I6BQI	ZY0SAT PS7JN	UY5ZZVladimir Latyshenko, P.O. Box 4850, Zaporozhye, 69118, Ukraine
4O7M YU7GMN	ED1URS EA1URS	OI3AY OH1BV	YL6W YL2GD		VK2QFNeville Mattick, Hargraves, N.S.W. 2850, Australia
4W/VK2QF VK2QF	ED4MAD EA4RCU	OT1A ON7LR			VK7TSTrevor Spargo, 1 Roebourne Rd, Otago, Tasmania, Australia 7017
5A24PA PA1AW	EK8ZZ F5LQG	OT1H ON4ACT			W3URBernie McClenny, 3025 Hobbs Road, Glenwood, MD 21738, USA
5N3NDP/1 IK5JAN	EM10UCC UY5ZZ	OY3QN OZ1ACB			W4CKMark Clark, 1853 Dunroamin' Lane, Fayetteville, TN 37334, USA
5R8GT DK8ZD	EM1HO I2PJA	P3A W3HNNK			YB8HZP.O. Box 105, Pangkep 90600, Indonesia
5X1GS WB2YQH	EM7Q UY5ZZ	P41E P43E			YU1AAV Radio Sekcija Kozara, Jurija Gagarina 210, YU-11070 Novi Beograd, Serbia, Yugoslavia
8Q7DD W4WET	EW8AM DL8KAC	P49MR VE3MR			YU7GMN Radio Club Muzlja, P.O. Box 5, 23206 Muzlja, Yugoslavia
8R1RPN OH0XX	EX2M W3HNNK	PJ2MI W2CQ			Z39ARadio Amateur Society of Macedonia, P.O. Box 14, Skopje 1000, Macedonia
9G1AA PA3ERA	EY1HQ DJ1MM	PJ2WI W19WI			ZA5GFlorjan Gjonej, P.O. Box 210, Shkoder, Albania
9G5MD F5VIGR	EY8MM K1BV	PJ6/PA3GIOPA3GIO			ZK1CGVictor Rivera, P.O. Box 618, Rarotonga, Cook Islands, via New Zealand
9J2BO W6ORD	FO/DL7FT DL7FT	PY0FM JA1VOK			ZK1JJim Ditchburn, P.O. Box 491, Rarotonga, Cook Islands, via New Zealand
9M2XA JF4WPQ	FO0CLA F6CTL	R1FJL UA3AGS			ZL3CWJacky Calvo, P.O.Box 593, Pukekohe 1800, New Zealand
9M6A N2OO	FY5FU F5PAC	R3ARES RW3AH			ZS1Bbud Voortman, 17 Tudor Rd, Tokai, 7945, South Africa
9M6BAA G4SHF	G3MRC/C9G3MRC	R73A RZ3AA			
9N7RB W4FOA	GM7V ZS5BBO	RA3GS IK3PQG			
9V1GA JA4BJO	GU/DL4OCMDJ6OI	RQ4L UA4LCC			
9Y4SF WA4JTK	H40RW ZL1AMO	RT9W RZ9WVH			
A35RK W7TSQ	HA/DJ6OI DJ6OI	S21YV KX7YT			
A41MO A47RS	HB0/DL4OCMDJ6OI	S79MX HB9MX			
A61AF W4CK	HS0/OZ1HET	S79WB DL4HBB			
A61AJ W3UR	OZ1ACB	SN2B SP2FAX			
AH7X/NH2JP1NWZ	HS4BPQ E21EIC	SO8ZZ UY5ZZ			
AM3ALV EA3ALV	I19F I79FYX	SV9/DL6QT DL6QT			
AM4YK EA4YK	IO4I IK4QIB	T30ED 3D2ST			
AM7AN EA7ANM	IO9K I79KWF	T88MW WN7T			
AM8CI EA8AKN	IR0MA I0MWI	TA2DS WA3HUP			
AN1HS EA1HS	IR4B IK4AUU	TG7/W9AEBW9AEB			
AN6AEQ EA6AEQ	IR8A I8ACB	TK5XN F2YT			
AN9IB EA9IB	IR8J IK8WEJ	TL8CK F6EWM			
AY8A LU8ADX	IR9A I79RZR	TM0S F5KEF			
BN0W BV2KI	IU4CG I4GSS	TM2A F5BJW			
BV5BG IK7JTF	IU9S I79BLB	TM7Z F5CWU			
BV9AYA BV2KI	J28LP F8UNF	TO5T FM5BH			
C6AKK A47X	J28NH F5IPW	TT8FC EA4AHK			
C6ASM DL2RMM	J28VS F4DBF	TX5CW ZL3CW			
CC4A CE4USW	J3/W1HEO W1HEO	TX8G LA9GY			
CE0Y/W7XUW7XU	J3/W5PF W5PF	UE1RCV/1 UA1RJ			
CM6YD EA5KB	J37LR VE3EBN	UK8FF W3HNNK			
CN2R W7EJ	J41K SV1DPI	US0Q UY5ZZ			
CN8KD EA5XX	JK1UWY/5NO	US4IXQ WB7QXU			
CO8CY EA5KB	JH8BKL	V47KP K2SB			
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CQ0M CT1RVM	JW2PA LA2PA	V73GT WF5T			
CT3AS DJ8FW	JW3FL LA3FL	VK6KVP SP9EVP			
CW6V W3HNNK	JW4WJ LA4WJ	VK7TS/p VK7TS			
CX3HF EA5XX	JW7QIA LA7QIA	VK9KCP SP9EVP			
D2BB W3HNNK	JW8G LA8G	VK9KXP SP9EVP			

3D2AGAntoine de Ramon N'Yeurt, P.O. Box 14633, Suva, Fiji Islands
 BX4AFP.O. Box 11-12, Miaoli 366, Taiwan
 BY6HYAmateur Radio Club of The Hua Dong College of Metallurgy, Ma An Shan City, An Hui Province 243002, China
 DJ6OI (ex DL4OCM) Thomas Steinmann, Carl-Siebert-Str. 15, D-37170 Uslar, Germany
 DJ8FWBen Muller, P.O. Box 6, D-29387 Bad Bodenteich, Germany
 DL7FTFrank Turek, P.O. Box 1421, D-14004 Berlin, Germany
 E21EIC Champ C. Muangamphun, P.O. Box 1090, Kasetsart, Bangkok 10903, Thailand
 E4/OE1GZAGunter Zwickl, c/o SICT, P.O.Box 1133, Ramallah, Palestine
 EA5KBJose F. Ardid Arlandis, Apartado 5013, 46080 Valencia, Spain
 EA6AEQP.O. Box 10180, Palma de Mallorca, 07080 Balearic Islands, Spain
 F5JPWJoel Ricaud, 32 Avenue de la Vallee du Lys, 37260 Artannes-sur-Indre, France
 G3PJTBob Whelan, 36 Green End, Comberton, Cambridge CB3 7DY, UK
 HP1RCP Radio Club de Panama, P.O. Box 10745, Panama 4, Panama
 I0MWWStefano Cipriani, Via Taranto 60, 00055 Ladispoli - RM, Italy
 I5JHWGiovanni Bini, Via Santini 30, 51031 Agliana - PT, Italy
 I6BQIAngelo Brandolini, Contrada Colle di Giogo 36/A, 65010 Moscufo - PE, Italy
 JA1TAA Hiroshi Hotta, 4-12-53 Kameino, Fujisawa, 252-0813, Japan
 JH5OXF Mitsuhiro Takehira, 1656 Kominato, Iyo City, Ehime 799-3113, Japan
 JI3DSTakeshi Funaki, 2-18-26 Hannan-cho, Abeno-ku, Osaka-city, Osaka 545-0021, Japan
 JS1DLC Ken Arakawa 1-17-2 Hachimandai, Sakura City, Chiba 285-0867, Japan
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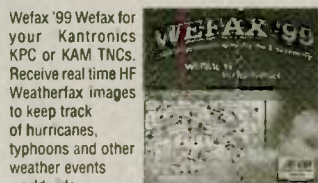


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Staying active — being involved

A friend passed away this past week, and in her passing perhaps I could pass along an observation. Alta Miller had just turned 97. She had never married, with speculation being that she could not find anyone that was able to keep up with her busy schedule. She was a life-long educator and earned her Master's degree at Columbia University way back when it was unusual for a woman to even attend college. I won't attest to her driving abilities, but she continued to drive until she was almost 96. She was tireless and had more energy at 95 than most of us have at 35.

About a month ago, Alta fell in her home and broke several bones in her neck. Following surgery, she was confined to a bed with a "halo" device that would keep her head and neck from moving to ensure proper healing of the bones. While she would joke and make light of the restraint, it was clear that she was in pain possibly more so because of her energetic personality. While the official cause of death was listed as natural causes incident to age, it is very possible her death was due to her being unable to be up and about. With Alta, being 30 minutes early to an event was, to her, "on time." I don't believe I ever heard of her sitting still for any length of time. She either outlived or wore out everyone she grew up with, yet the church was filled with friends for her funeral.

I cannot recall Alta ever complaining, but in the times she felt life wasn't going her way, her solution was to be of service to someone else. She would go and be a friend to someone. Isn't that the essence of Amateur Radio and public service to forget one's own challenges in life as we find ways to serve others? Over the past few days, I've been thinking — when disasters strike, some of the first to volunteer are Amateur Radio operators. Whether it is an earthquake, power outage, hurricane, tornado, flood, etc., one can with almost certainty find information via Amateur Radio.

It is my belief (your choice whether simply physical, mental, or religious) that through service, we are renewed. We are energized. We are healthier. We are happier. It is a good thing to be anxiously engaged in a good cause.

"They didn't call us!"

One often heard complaint, if you will, is that an agency didn't call out a volunteer group to assist with some particular emergency or public event. My return is a question: "Of what value would your group have been?" Often, the response is "I don't know." With some discussion, we arrive at the conclusion that the agency simply didn't need the group's services.

I sometimes find the attitude that as a volunteer, we're somehow entitled to be on the "A" list of responders, no matter what the event. In a broad perspective, you can always argue that a group could contribute something, but in reality, often the contribution is unneeded due to the nature of the event.

It's even been apparent that an attitude exists among a group that if they have a radio, an ID badge, and some type of a uniform, they should be on the front line. To understand if your group suffers from this type of thinking, take time at your next gathering to play a case study game. Over the next few weeks (or months), clip articles from your local newspaper concerning various events emergency and non-emergency. I would include items such as sports events, weather events, natural hazards, accidents of all types, and perhaps even public disturbances such as demonstrations and riots.

Now you role play. Ask various members of your group to be the mayor, or the governor, fire chief, police chief, or rescue leader. List elements of the event on a chalk board and then pose questions of the "dignitaries" as to how your group would be able to assist in the particular event. Now modify the event and reconsider your questions. Let me give you an example.

Consider a train derailment. Let's say it's a freight train with 50 cars and it's happened in a remote area. You might ask the "sheriff" and the "railroad official" how you could be of assistance. Would they need communications to the site? What types of volunteers would they need? You don't need to have any "derailment" expertise, just use your imagination and ponder what you might do with these few details.

Then change the scenario. The train was carrying hazardous materials. The train has contaminated water supplies. The train was carrying explosive materials. Then change the location and put it closer to a population center. Then make it a passenger train with minor injuries. Make the injuries more serious and increase the number of passengers. Put some hazardous materials in the baggage car. Do you get the concept? Use the discussion to focus on whether or not your group could be of value in the given situation.

What I predict you'll discover is that you're prepared and would be of some value in some situations and that others would pose serious risk to you and your group because your capabilities would not be of value under those conditions. For example, would you want to be on the front lines of a hazardous chemical spill? I don't think so, but would you be of value relaying weather reports from perimeter areas to the command center? If there were people evacuated, could you assist a group such as the Red Cross in keeping track of shelter capacity and relaying requests from relatives as to the location of those relocated?

In any given event, your group may or may not be of value. As you explore the various scenarios you've clipped from the paper, you'll come to a better understanding of your value as you place yourself in the "decision maker role" such as a mayor or police chief. We often fail to grasp the whole picture, and I'll also make the statement, officials also fail to understand what value our group might be to them. It's

much better to approach an agency prior to an event and pose your value to them under various circumstances.

Telephone information

I received quite a few messages concerning telephone line simulators. One of the best simulators around is the "Party-Line" available from Digital Products Company, 134 Windstar Circle, Folsom, California 95630 USA (Tel:916/985-7219). You can find them on the Internet as well. This simulator allows six analog phones to be connected and each has its own unique phone number. The only drawback is that it requires 14 volts AC to operate, but you can find a DC to AC converter that will make it play in the field as it needs less than half an amp current.

From the number of messages, there is certainly interest in such a field device and I was also impressed with the ways many of you told me you'd put it to use and under various circumstances. Bravo! You're using your brain for more than a hat rack. Isn't it neat to discover some goodie and then apply it to a problem that makes things work smoothly!

One additional note. The Party-line simulator comes as a kit which is great for Amateur Radio operators who don't get the chance to assemble a rather complex item such as this. The instruction manual is great, it goes together in one or two evenings. If you take your time, it will work first time! I didn't purchase the enclosure, as I wanted to make mine customized for a particular application and also wanted

it in a weather-proof box. That too, is part of the challenge as you take this simulator and customize it for your own needs.

A final thought

If you get the chance, teach your group how to solder. It's becoming a lost art. There are so many projects and kits on the market that I'm sure you can find something of interest as a group project to build. Even something such as a regulated power supply to charge your stand-by battery pack (you do have one don't you?) is a commendable undertaking.

One of the most fun things my son Zach and I built was a 10-minute ID timer. It sits on the table at eye level and every 10 minutes a small light comes on to remind me it's time to identify my station during a contact. He and I found the schematic, purchased the parts, built an enclosure, and had a great time soldering it and testing it. It has some count-down LEDs that indicate one-minute intervals and not only is it useful, the goodie looks impressive.

I'm often sad when someone calls me to fix a microphone connector or solder a power connector. It's not difficult, but for some reason it's intimidating to many operators. Soldering irons are not expensive and with one or two basic projects under your belt, you'll be able to tackle your own minor repairs. I might also add that a co-worker asked me if I knew a good plumber to replace a section of line on his hot water heater inlet. Apparently the pipe

was defective and had a pin-hole leak. The commercial shops he called were somewhat expensive in their "over the phone" estimates, so he thought I might know a friend who wasn't as pricey.

As you might suspect, I volunteered to help him. My expertise? Not plumbing, but building copper pipe j-pole antennas. Having learned how to solder pipes (using silver solder) for antennas, I had the tools and expertise to attempt this minor plumbing task. I even had scraps of pipe and various fittings and was glad to be of service and clean out some of my experimenter parts. There is value in Amateur Radio construction (and having an active imagination) to be of practical benefit around the house.


— Jerry Wellman, W7SAR, our doodad wearin' SAR columnist can be reached by sending snail mail to: P.O. Box 11445, Salt Lake City, UT 84147 or by sending e-mail to: jw@desnews.com.


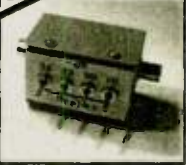

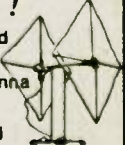

Alaska PRB-1 bill passes Senate

Alaska's Amateur Radio antenna bill, Senate Bill 78, was approved by the Alaska Senate this week in a 20-0 vote. Last week, SB 78 got approval from the Senate Community and Regional Affairs Committee. The measure now goes to the Alaska House for consideration. ARRL Alaska Section Manager Kent Petty, KL5T, encouraged amateurs in his section to thank the Senate lawmakers for their votes. "They certainly listened to our requests, and

deserve our thanks," he said. "The next challenge will be to convince our representatives in the House to take the same important action, and to send this bill to Gov Knowles to sign into law." House members' names and contact information are available on Alaska's legislative Web site, <http://www.legis.state.ak.us/>. More information on PRB-1 and Amateur Radio antenna regulation, is on the ARRL Web site, www.arrl.org/FandES/field/regulations/#local. — ARRL Letter

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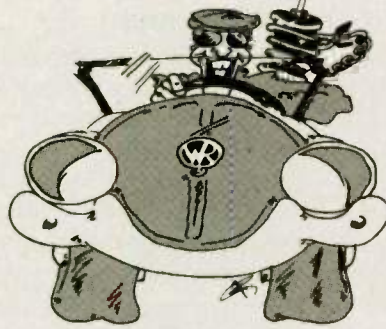
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Amateur Radio in a hybrid vehicle

An interesting noise question was posed in our last column by Gordon Lange, N7GCA, about his new Toyota Prius hybrid car. Bill Powell, WB1GOT, sent us the following report on several Ham aspects of this leading edge vehicle:

"I am also a proud (and happy) Prius owner and have been digging for some authoritative information on HF/VHF radio in the Prius too. The Toyota Prius is a Gas/Electric Hybrid car that offers almost zero emissions, great gas mileage and is a real blast to drive. Unfortunately, It has over 17 computers and 3 LANs in use to control the THS (Toyota Hybrid System) — a potential RF nightmare...

"I am an active participant in several Prius message boards (see below) and, to date, there are about six or seven self-identified Hams active as well. One has reported success (the Prius continues to run) with a VHF radio, 100 watt amp and a mag-mount. Another has/is considering an HF install. I believe it's possible and practical and intend to install in the spring, IF (big IF) one is VERY careful to isolate the COMPLETE install to the maximum practical extent. As time permits, I'll be updating my web page (<http://whp.home.att.net/>) to cover



Prius Ham-specific issues, including some correspondence received from Toyota concerning radio operation and the Prius."

Drop me an e-mail (address at the end of the column) if you would like a copy of Bill's listing of Toyota Prius message boards.

Tire/wheel noise

Jack Fisher, K2JX, responded to the tire noise question: "Here is a suggestion for John, KC5MH, if his '94 Buick has alloy wheels. When the wheel is removed from the hub, which is cast iron, there is usually a rust build up between the two mating surfaces. Before the wheel is replaced it is recommended that the rust be

removed from the hub and no lubricants be used on the mounting studs. It may be possible that there is no electrical contact between wheel and hub. I would also check to make sure that any brake or suspension sensor cables are seated on their respective sockets. These cables carry logic level signals to the vehicle's computer if equipped with GM's electronic suspension or anti-lock brakes."

Noise-free vehicle

With all the bad news we hear about vehicle noise, I thought you would be interested in the following good news from Quent Galbraith, K5TVC: "I have been operating HF mobile since 1965 in various vehicles. The vehicle I am now using is so void of noise it's unbelievable. After installing my Icom 707 and Hustler with the short mast and turning the radio on, I could not believe there was absolutely no ignition noise, with the NB off. I had done NO bonding, etc of any kind. It's actually quieter than my home station, even at 75 mph. The vehicle has a GM 2.3L Code D engine. This engine is unique in that there is no exposed distributor, coil, spark plug wires, or spark plugs. All of these components are "inside" the engine, covered with a thick aluminum housing. I am assuming this is the reason there is no ignition noise. Also there is no hint of any computer noise. When I trade cars, I will certainly give this engine style my first choice."

Amateur Radio and RV'ing

The second most mentioned subject in my e-mail, behind noise, is RV'ing. I've reported on the Sam's Radio Hams several times. They are a Chapter of the Good Sam RV Owners Club. Imagine my surprise when the April Good Sam "Highways" magazine had an article on Ham radio. The article talked about the public service operations of Hams within a Chapter in Arkansas. At the end of the article was a listing of Amateur Radio Chapters in Arizona, Florida, Ohio, and Texas, as well as the Sam's Radio Hams in California. I

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was only able to come up with a valid e-mail address for the Ohio President, "Nick" Luttmann, AA8NK, but I would also like to get in touch with all the others. Are you out there?

Nick said their group is approaching three years in existence. They started at a statewide campout. Several amateurs had their call letter badges on and spotted each other. So they organized a Good Sam Chapter where at least one spouse must be a Ham. They live all over Ohio, but meet three times a year at the Ohio Samborees. Even though they meet infrequently, they support charity donations and provide public service communications.

Guestbook comments

I got this note in my web guestbook from Armand Lambert, K1FLD, the ARRL Rhode Island Section Manager: "Greetings from Rhode Island. Thanks for the great job on the column in *Worldradio*, I learn something every time the column comes out. Some day hope to be there for one of those shootouts." Armand, we could have used you at the last one at Quartzsite!

Which reminds me, I get a lot of generic questions and comments about mobile antennas. Everyone seems to

know that antennas can be critical in mobile operation because of the amount of loading necessary on some bands. But you cannot say that the better antennas are superior on all bands. Most antenna reputations are made on 75 Meters, where losses can be a real problem. Never feel guilty about compromising on a smaller, lighter antenna if that is all that will fit your vehicle. Don't be concerned about the higher bands where the differences are slight, if any.

On the road again!

As I write this, I am about to leave on the annual desert trip of the Mt. Vaca Radio Club. I don't mention this club often in this column because we have little HF mobile operation. There are two other amateurs with HF mobile rigs among those on this trip, but for one reason or another I don't expect them on HF. But I will be on, keeping an example going. Be an example to your Ham club!

Let me hear from you on any HF mobile subject! Send e-mail to w6tee@qsl.net, or write: Les Cobb, 4114 Horgan Way, Sacramento CA 95821. On the Web at <http://home.pacbell.net/lcobb/>.



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Equalize that microphone!

Back in the AM days, it seemed as if everyone was conscious of their transmitted audio quality. Many of those signals had better response than the local broadcast stations. Good solid lows, crisp highs and very articulate midrange — just good clean balanced audio. Then came SSB and for years sounded very restricted as the transmitter bandwidths were set around 2.1 kHz — hardly enough for any high quality audio, either on transmit or receive.

The last few years has seen a movement on the SSB portions of the Amateur Radio bands to bring back higher quality SSB audio. Through major design efforts of the major manufacturers of transceivers as well as designers of microphones and onboard audio equipment we are able to put much higher quality signals on the air with little effort and low cost — in some cases, NO cost.

Choose the right equipment

Just as with anything else, you must choose the right equipment to do the job you are wanting to perform. Several of the major transceivers are now capable, through their DSP sections, to set the bandwidths at 100 Hz on the low end and 3,000 Hz on the top end. Still within the parameters of the regulations but absolutely what is needed to produce beautiful AM quality audio. It is extremely important to choose the right microphone that has a bandwidth from around 50 Hz on the low end through at least 12 kHz on the top end. The reason you will want a wider response microphone than your filters is so the rolloff of the filters is at least an octave from the roll-off of the microphone outer limit hinges. Anything narrower will not sound as smooth.

Equalization

Another important factor in selecting the equipment is to choose a transceiver with great variable DSP as

well as variable transmit equalization and several of the latest generations of transceivers have built-in microphone EQ sections. If you don't have on board EQ there still is hope through the W2IHY 2-band or 8-band equalizer. With active equalization, you are able to adjust the amount of high and low frequency response, depending on the voice, the microphone element as well as the room ambiance. Active EQ allows you to balance the audio response exactly to the sound you are wanting to put on the air.

Recording studios and broadcast studios as well as every telephone, PA system and car radio uses some form of equalization to flatten the response curve and equalize it so you hear the voice in a natural balanced response. Bell Labs studied the human hearing responses for years and discovered the incredible lack of midrange sound the ear hears. The balance of highs and lows vary drastically with level and this is important to understand when trying to achieve clear, articulate, well balanced audio. As Bell concludes, our hearing is very sensitive in the mid-range and needs some help in the upper regions, while being very

deficient in the lower extremes. Trying to copy the weak signals that do not have much midrange or high responses is much more difficult than copying those that are weighted in the mids and high regions.

Proper microphone techniques


It is so important to use proper microphone techniques so as to avoid extraneous background noises such as blower fans, TV sets in the next room, etc. Haven't you tuned across this big loud signal where the fan is louder than the stations voice? His explanation for the situation is usually that he is "running a lot of power" is certainly not the correct explanation of the situation. The problem is that he is usually speaking about a foot from the microphone with the un-equalized processor and mic gain cranked up — causing the background noise to be louder than his voice.

Microphones for communications transmitters were designed and meant to be within two to three inches of the user's mouth — no further away. It is NOT proper to sit back away from a microphone and expect to have that commanding signal. The important mid-range frequencies are lost, the highs are diminished and there is very little dynamic range. What is left is the room resonance that overrides just about any audio present.

To correct this and insure that your signal has that terrific mid-range punch, free from extraneous background noise, run the microphone gain as low as possible to achieve full ALC action and speak no more than two to three inches from your microphone. It is the accepted practice in professional communications and is the only way to achieve good solid transmit audio.

One of the major culprits that allow the operator to stay away from the microphone are the usual 'desk stands'. The best fix for this is to use a microphone boom as used in commercial broadcast stations as well as recording

HYBRID-QUAD ANTENNA



MINI HF BEAM

Most Antennas are large, heavy structures requiring heavy-duty towers, rotors and require extra muscle during installation and lots of extra dollars before the job is done.

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6, 10, 15, 20 Meters

Element Length.....11 Ft	Wind Loading.....1.5 Sq Ft
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MQ-2 Six-Band Antenna.....\$369.95
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<http://www3.sympatico.ca/tgmc/index.html>

NEW From Patcomm

studios. The boom allows you to place the microphone two to three inches from your mouth and at the same time give you back the desktop that was taken up by that silly little desk stand! Using a footswitch to control the push to talk line of your transmitter in conjunction with the microphone and boom set up gives your station that terrific hands free operation and with great articulation into the microphone.

Paying attention to and practicing the simple science of audio at your Amateur Radio station will give you results you had thought not possible without spending lots of money when in fact great improvements can be achieved by simply applying the science.

Listen to your signal

Most of the transceivers have a 'monitor' section in their feature list but it is simply not the complete answer to exactly how you sound to the outside world. The only way that you know how you sound is to transmit into a dummy load and listen to a nearby receiver through a pair of quality headphones. Be certain that the receiver you listen to your transmitted signal on is listening in the same bandwidth of the transmitter. Remove the antenna, reduce the RF gain and set the receiver to a comfortable listening level as you step through the various bandwidth controls, mic gain settings and the all important equalization adjustments.

This is the only way you will really know how you sound to the outside world.

Have fun and keep all of those signals **IN PHASE!**

— *Bob Heil, K9EID, our frequency response lovin' columnist can be reached by sending snail mail to: 5800 N. Illinois, Fairview Heights, IL., 62208-3505, or by e-mail to: bob@heilsound.com.*

New web site

There's a new website for those with interest in the 1.25 meter band. Featuring an equipment sale area, a general interest message board, a meteor scatter message board and a beacon list. It's at: <http://6mt.com/222.htm> — *VHF REflector, Newsline*



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Visit Your Local RADIO CLUB

ALABAMA

Tuscaloosa ARC. Meets 2nd Mon./monthly, 7 p.m., Red Cross Bldg., 15th St., Tuscaloosa, AL. For info: David Drummond, W4MD, (205) 339-7915, trustee for W4KCQ, 146.82(-) (118.8) 4/02

ARIZONA

Arizona Repeater Association, Inc. Operates 24 VHF-UHF rpters. in AZ. Meets 4th Thurs./monthly, 7:30 p.m., 2124 W. Cheryl Dr., Phoenix, AZ, North entrance. Info: D. Baize (602) 542-7950 or www.arizonarepeaterassociation.org 2/02

Cochise Amateur Radio Assn., (CARA). Meets 1st Mon./monthly, 7:30 p.m. at club facility on Moson Rd., Sierra Vista, AZ. K7RDG/R 146.76(-) rptr. PL162.2. 6/01

CALIFORNIA

Contra Costa Communications Club, Inc., WD6EZR/R. P.O. Box 20661, El Sobrante, CA 94820-0661. Meets 2nd Sun./monthly (except May & Dec.), 08:00, Denny's, El Cerrito, CA. 145.110 PL 82.5 Info: S. Clark, KB6SEI, (510) 724-0158. 7/02

Cupertino ARES (CARES). Meets 1st Thurs./monthly, 7:30 p.m., Cupertino City Hall, CA. Net each. Tues. 7:45 p.m. on 147.57 simplex. EC - Jim Oberhofer, KN6PE. www.zoy.net/CARES 6/01

Downey Amateur Radio Club Inc., W6TOI. Meets 1st Thurs./monthly, 7:30 p.m., So. Middle Sch. cafeteria, 12500 S. Birchdale, Downey, CA. VHF net W6GNS rptr. 146.175(+). Thurs., 7:30 p.m. <http://www.downeyarc.org>. Info L. Vaughn, kd6nzw at kd6nzw@downeyarc.org 6/01

East Bay Amateur Radio Club, Inc. Meets 2nd Fri./monthly, 7:30 p.m., Salvation Army, 4600 Appian Way, El Sobrante, CA. Info: (510) 233-7509, w6cus1@juno.com, 145.11(-) MHz. 9/01

El Dorado County Amateur Radio Club. P.O. Box 451, Placerville, CA 95667. Meets 4th Tues./monthly, 7:15 p.m., Federated Church, 1031 Thompson Way, Placerville. Web: <http://edcarc.tripod.com>. Net: Thurs., 7:30 p.m. 147.825(-) PL 82.5 6/01

Fresno Amateur Radio Club. Meets 2nd Fri./monthly, 7:30 p.m., Ernie Pyle School, 4140 N. Augusta, Fresno, CA. 146.94(-) 223.94(-). 1/02

Golden Triangle Amateur Radio Club. P.O. Box 1335, Wildomar, CA 92595. Meets 4th Mon./monthly, 7:30 p.m., Rancho Water Dist., 42135 Winchester Rd., Temecula, CA. Rptr: W6GTR 146.805 (-) PL 100. Info: H. Wijma, AC6VN, (909) 693-2383. E-mail: ac6vn@cs.com. Web: <http://www.qsl.net/gtarc> 9/01

Livermore Amateur Radio Klub, (LARK). Meets 3rd Sat./monthly, 9:30 a.m., City Council Chamber, 3575 Pacific Ave., Livermore, CA. Net Mon. 1900 on 147.12(+). Info: LARK Sec., P.O. Box 3190, Livermore, CA 94551-3190. (925) 373-1386. 2/02

Los Banos Amateur Radio Club. Meets 2nd Sat./monthly, 7 p.m., Los Banos Police Admin. Annex Bldg., 535 J St. Info: M. Germino, AD6AA, (209) 826-0903, E-mail: AD6AA@arrl.net. Net 147.060(+)/PL 107.2 every Thur. 7 p.m. Rpt. KB6NMP 147.06(+)/PL 107.2 & 444.00(+)/PL 241.8. <http://www.qsl.net/lbarc/> 6/01

Marin Amateur Radio Club. Box 6423, San Rafael, CA 94903. Meets 1st Fri./monthly, 7:30 p.m., also every Sun., 8 a.m. to 11 a.m. at Alto Clubhouse, 27 Shell Rd., Mill Valley, CA. Website: W6SG.Net 7/02

Mount Diablo Amateur Radio Club. P.O. Box 23222, Pleasant Hill, CA 94523. Meets 3rd Fri./monthly, 7:30 p.m., Our Savior's Lutheran Ch., 1035 Carol Ln, Lafayette, CA. Net Thurs. 7:30 p.m. on 147.06(+)/PL 100Hz. Info: (510) 932-6125. 8/01

Nevada County ARC. Meets 2nd Mon./monthly, 7 p.m., Salvation Army Bldg., 10725 Alta St., Grass Valley, CA. Net Tues. 7 p.m. 147.015. Info: George, KQ6SA, (503) 447-2295, www.NCARC.org 4/02

North Hills Radio Club. Meets 3rd Tue./monthly, 6:30 p.m., Arcade Lib., Marconi near Fulton, Sacramento, CA. Nets 8 p.m. Tue., (except 3rd Tue.) & Thur., 145.19- PL 162.2, 224.40-. Info: (916) 944-1464. nhrcc@k6is.org, <http://www.k6is.org> 4/02

Orange County ARC. Meets 3rd Fri./monthly, 7:30 p.m., Orange County Red Cross, 601 N. Golden Circle, Santa Ana, CA. Talk-in 146.550 (S). Contact Bob Buss, KD6BWH, (714) 534-2995, www.w6ze.org 4/02

Poinsettia ARC. Meets 1st Thurs./monthly, 7:30 p.m., First Christian Ch., Telegraph Rd. & Teloma Dr., Ventura, CA. Info: J. Casper, N6PIQ, (805) 649-1445. 6/01

River City A.R.C.S. Meets 1st Tues./monthly, 7:30 p.m., Sacramento Society for the Blind, 2750 24th St., Sacramento, CA. License classes offered. Info: (916) 492-6115. 10/01

Sacramento ARC. Meets 2nd Wed./monthly, 7 p.m. Sac. Blood Ctr., 32nd St. & Stockton Blvd., Sacramento, CA. Info net, noon on rptr. W6AK/R 146.91(-). T. Preston, KQ6EO, (916) 722-9358 or L. Bailing, WA6EQQ, (916) 393-4775. <http://w6ak.home.sprynet.com/> 6/01

Sierra Foothills ARC. P.O. Box 1005, Newcastle, CA 95658. Meets 2nd Fri./monthly, 7:30 p.m., Auburn Library (Beecher Rm.), 350 Nevada St. Thurs. nets 7:30 p.m. 145.430(-) PL 162.2. Info: M. Diridoni, mdiridoni@rsvl.net 6/01

Sonoma County Radio Amateur, Inc. W6LFIJ. P.O. Box 116, Santa Rosa, CA 95402. (707) 579-9608. Meets 1st Wed./monthly, 7:30 p.m., Agilent Tech., 1400 Fountain Grove Pkwy, Santa Rosa. Net each Tues. 7 p.m., W6SON. Rptr. 146.73(-) PL 88.5. www.cds1.net/sra 2/02

South Bay ARC. P.O. Box 536, Torrance, CA 90508. Meets 3rd Thurs./monthly, 7:30 p.m., Torrance Memorial Hosp., 3330 Lomita Blvd., Torrance, CA. Talk-in on WB6MYD rpt. 244.38(-). Info: (310) 328-0817. 8/01

Stanislaus Amateur Radio Assoc., Inc. (SARA). P.O. Box 4601, Modesto, CA 95352. Meets 3rd Tues./monthly, 7:30 p.m., Modesto Police N/E area Substation, 3705 Oakdale Rd. Modesto. Net 1.2+4 Tues. 7:30 p.m. 145.390(-) PL136.5 2/02

Tehachapi-Southern Sierra ARS. Meets 2nd Thurs./monthly, 7 p.m., except July, 125 East F St., Tehachapi, CA (Veteran's Hall). Info: KD6KMN, (661) 822-5995. www.ssars.net, 147.06(+), 224.42(-) PL 156.7. Pkt 145.090(S) connect to W6PVG-7. ARES nets 7 p.m. 147.51(S) Mon. 1/02

Tri-County Amateur Radio Assoc. P.O. Box 75, Claremont, CA 91711-0075. Meets: 2nd Mon./monthly, 7:30 p.m., Brackett Airport, Pilot's Lounge in Adm. Bldg., La Verne, CA. Info: Alvin, W6EKZ at w6ekz@arrl.net or (909) 622-9930. 2/02

Trinity County ARC. P.O. Box 2283, Weaverville, CA 96093. Meets 2nd Wed./monthly, County School. Adm. Building, Weaverville, 7:30 p.m. Rptrs: WA6BXN 146.73(-) PL 85.4, W6HOR 146.925(-) PL 85.4. <http://www.tcoe.trinity.k12.ca.us/~tcarc> 2/02

United Radio Amateur Club, K6AA. L.A. Maritime Museum, Berth 84, Foot of 6th, San Pedro, CA 90731. Meets 3rd Fri./monthly (except Dec.), 7:00 p.m. Monitors 145.52 Simplex 10 a.m.-5 p.m. 8/01

Vaca Valley Radio Club. Meets 2nd Wed./monthly, 7:30 p.m. (Board mtg., 7 p.m.) Vaca Fire Dist. Stn., Vine St., Vacaville, CA. Rptr. WD6BUS 145.47(-) PL 127.3. J. Bullington, (707) 446-4347. 8/01

West Coast Amateur Radio Club, (WCARC). P.O. Box 2617, Costa Mesa, CA 92628. Meets 3rd Thurs./monthly, 7 p.m., Fountain Valley Sch. Dist. Office, 17210 Oak St., Fountain Valley, CA. Info: Jane, KD6ODV, (714) 531-6707 4/02

Westside Amateur Radio Club - Los Angeles. P.O. Box 11092, Marina del Rey, CA 90295. Meets 4th Tues./monthly, 7:30 p.m., ARC Bldg., 11355 Ohio Ave., W. L.A., CA (VA Cntr. grounds). Net Tues., 8 p.m. 147.195+ PL100, except mtg. night. Website: <http://www.qsl.net/wa6rc> Messages: (310) 848-1354 11/01

Willits Amateur Radio Society, (WARS). P.O. Box 73, Willits, CA 95490. Meets 4th Mon./monthly, 7 p.m., Brooktrails Fire Dept. 2 NW Willits <http://www.saber.net/wars>. Talk-in: 145.13(-), PL 103.5. 12/01

COLORADO

Boulder Amateur Radio Club (BARC). Meets 3rd Tues./monthly, 7:00 p.m., NIST room 1107, 325 So. Broadway, Boulder, CO. Talk-in: 146.70(-). Information: (303) 380-6540, e-mail: BARC5@arrl.net or www.thisistrue.com/barc.html 8/01

CONNECTICUT

Tri-City Amateur Radio Club. P.O. Box 686, Groton, CT 06340-0686. Meets 2nd Tue./monthly, 7:30 p.m., Red Cross Bldg., 150 Eugene O'Neill Dr., New London, CT. Info: B. Dargel, KA1BB, (860) 739-8016. 8/01

FLORIDA

Gulf Coast ARC. P.O. Box 595, New Port Richey, FL 34656. Meets 4th Mon./monthly, 7:30 p.m., Marchman Tech. Ed. Cntr., 7825 Campus Dr., Bldg. C, Rm C122, New Port Richey. WA4GDN rptrs. 146.67(-) & 145.33(-), serving all of Pasco County. 1/02

Highlands County ARC, Inc. Meets 3rd Mon./monthly 7 p.m., Agri Civic Cntr. (HWY 27 So.) Sebring, FL. Rptrs: KK4LI 147.045 & KE4WU 442.350. Club Net: every Wed. on 147.045, 8 p.m. ARES Net: every Wed., 147.27 at 7:30. Web page: www.strato.net/~hamradio 7/02

Port St. Lucie ARC. P.O. Box 7461, Port St. Lucie, FL 34985. Meets 2nd Fri./monthly, St. Andrews Lutheran Church, 295 Prima Vista Blvd. Contact: Roy Cox, (561) 340-4319. www.qsl.net/pslara or 146.955-. 2/02

GEORGIA

Cherokee Capital ARS Meets 3rd Thurs./monthly 7 p.m. Trinity Baptist Church, 1170 Rome Road, SW (GA Hwy 53) Calhoun, GA. 146.745(-) Info: Felton Floyd, AF4DN, (706) 629-0369. www.qsl.net/k4woc 1/02

Dalton Amateur Radio Club, Inc., (DARC). P.O. Box 143, Dalton, GA 30722-0143. Meets 4th Mon./monthly, 7:30 p.m., Magistrate Court Bldg., corner of Waugh St. & Thornton Ave., Dalton, GA. Info: Harold Jones, N4BD, 706/673-2291. 6/01

Gwinnett Amateur Radio Society, (GARS). P.O. Box 88, Lilburn, GA 30048. Meets 3rd Thurs./monthly, 7:30 p.m., Gwinnett Central Baptist Church on Gwinnett Dr., Lawrenceville, GA. 147.075+ PL 82.5. Contact: Mike Swiderski, K4HBI, (770) 449-0369. 8/01

HAWAII

Big Island Amateur Radio Club. P.O. Box 1938, Hilo, HI 96721. Meets 2nd Sat./monthly, 2 p.m., Keaau Community Ctr., behind Fire Station on Old Volcano Rd., Keaau. Talk-in on 146.88(-). Lunch, 11 a.m. Fridays, Hilo Hawaiian Hotel - Queen's Court Rest. 11/01

Koolau Amateur Radio Club, (KARC). 45-145 Mikihilina St., Kaneohe, HI 96744. Meets 2nd Sat./monthly, 9:30 a.m., Hoomaluhia Botanical Garden., Kaneohe, Hawaii. Information: (808) 235-3042. <http://www.chem.hawaii.edu/karc/> 8/01

Hawaii QRP Club. Meets daily at World Headquarters, 8-10 a.m., Jack In The Box Restaurant, mile 2, Volcano Highway, Hilo. Contact: via e-mail: kh6b@juno.com for info. 3/02

ILLINOIS

Chicago FM Club Inc., (CFMC). P.O. Box 1532, Evanston, IL 60204. 146.76(-) PL 107.2/224.10/224.18/443.75 PL 114.8. Ham help line: (773) 262-6773. Info net Tues., 9 p.m. on 146.76(-). Meets 3rd Wed./monthly, 8 p.m. 8/01

Dupage Amateur Radio Club. (DARC). P.O. Box 71, Clarendon Hills, IL 60514. Meets 4th Mon./monthly, 7:30 p.m., Fire Stn. #3, 6015 S. Cass Ave, Westmont, IL. Net Sun., 9 p.m. on 145.25, W9DUP rptrs., 145.25(-) 107.2PL, 442.55(+), 114.8PL, 224.68(-). www.w9dup.org 11/01

Fox River Radio League. P.O. Box 673, Batavia, IL 60510-0673. Meets 2nd Tue./monthly, 7:30 p.m., Old Bank Bldg., 900 No. Lake St., lower level, Northgate Shopping Ctr. & Rt. 31, Aurora, IL. 8/01

Hamfesters Radio Club, W9AA. P.O. Box 42792, Evergreen Park, IL 60805. Meets 1st Fri./monthly, 7:30 p.m., Crestwood Civ. Ctr., 139th & Kostner, Crestwood, IL. Nets: Sun. (local) 0100 UTC, 28.410 MHz; Mon. 9 p.m. 146.43 S., Packet Mailbox 145.65 MHz. Info: (708) 226-1570. 10/01

Peoria Area Amateur Radio Club, (PAARC). P.O. Box 3508, Peoria, IL 61612. Meets 2nd Fri./monthly, Red Cross Chapter House, 311 W. John Gwynn Jr. Ave., Peoria, IL. Voice mail: (309) 692-3378. Rptrs: 147.075(+) & 146.85(-). 8/01

Schaumburg ARC. P.O. Box 68251, Schaumburg, IL. Meets 3rd Thurs./monthly, 7 p.m., Rec. Center, Bode and Springinguth Roads. (847) 798-5248. <http://members.aol.com/sarcradio11/01>

The Starved Rock Radio Club, W9MKS. P.O. Box 198, Tabor St., Leonore, IL 61332. Meets 1st Mon./monthly, 7 p.m. Rptr. net 7 p.m. Wed./weekly, 147.12(+) PL 103.5. Web: <http://www.qsl.net/w9mks> E-mail: w9mks@qsl.net 6/01

LOUISIANA

Baton Rouge ARC. Meets last Tue./monthly, 7 p.m., Catholic High School, 855 Hearstone Dr., Baton Rouge, LA. Net: 146.79MHz, 8:30 p.m. Sun. www.brarc.org. E-mail: W5GIX@aol.com. 2/02

MAINE

Androscoggin Amateur Radio Club. Meets 1st Wed./monthly, 7 p.m., Auburn Police Station, 1 Minot Ave., Auburn, ME. Info: (207) 782-8699. 7/01

MARYLAND

Maryland Mobileers ARC (MMARC). P.O. Box 935, Severn, MD 21144. Meets 1st Fri./monthly, 7:30 p.m., Baldwin Hall, Generals HWY, Millersville. Info net ea. Mon. 8:30 p.m. on 146.805(-), tone 107.2 Hz. <http://www.qth.com/mobileers> 7/01

MASSACHUSETTS

Genesis Amateur Radio Society. P.O. Box 1234 Plymouth, MA 02362. Meets last Mon./monthly, 7:30 p.m. at Plymouth Airport, So. Meadow Rd. Tues. net: 146.685, W1LM, 8 p.m. 7/01

Quannapowitt Radio Assoc., (QRA) Meets 3rd Thur./monthly, 7:00-9:00 p.m. at Wakefield MA Public Library, 345 Main St., Wakefield, MA, Sept. to June. Info: Jeffrey S. Hollis, W1CKH, (781) 944-6218. 3/02

MICHIGAN

Chelsea Amateur Radio Club, Inc., WD8IEL Meets 4th Tues./monthly, 7 p.m., Key Bank, 1478 Old Chelsea-Manchester Rd., Chelsea. Info: Bill Altenberndt, WB8HSN, (734) 475-7938 Rpt: 145.450(-). 5/02

Hiawatha Amateur Radio Assoc. of Marquette Co. P.O. Box 1183, Marquette, MI 49855. Meets 1st Thurs./monthly, 7:30 p.m., 108 Stratford, K.I. Sawyer AFB, MI. For info contact: Richard Schwenke, N8GBA, (906) 249-3837. www.qsl.net/k8lod 11/01

MINNESOTA

St. Cloud Amateur Radio Club. Meets 3rd Thurs./monthly, 7 p.m., Radio Club Bldg., 401 4th St. N., Waite Park, MN 56387. Info: (320) 255-1410, 146.94 or 147.015 or www.w0sv.org/2/02

MISSOURI

Macon County ARC. P.O. Box 13, Macon, MO 63552. Meets last Thurs./monthly, 7 p.m., Macon R-I High Sch., rm.167. Net every Wed., 8:30 p.m. 146.805. E-mail: nopr@arrl.net 3/02

NEBRASKA

Ak-Sar-Ben ARC of Omaha. P.O. Box 24551, Omaha, NE 68124-1551. Meets 2nd Fri./monthly, 7:30 p.m., Red Cross, 81st & Spring Sreet. <http://www.qsl.net/k0usa> 7/01

NEVADA

Carson Valley Radio Club (CVRC). Meets: 3rd Sat./monthly, 10 a.m. (Feb., Apr., Jun., Aug., & Oct.), Hilltop Com. Church, 3616 No. Sunridge Drive, Carson City, NV. Rptr.: 147.270(+). <http://www.cvrc.net>. For information: Dick Flanagan, W6OLD, (775) 267-4900, or w6old@arrl.net 4/02

Frontier Amateur Radio Society, (FARS). Meets: 2nd Sat./monthly, bkfst. mtg. 9 a.m., Country Inn, 1990 West Sunset, corner of Valle Verde, Henderson, NV. Info: J. Frye, NW7O, (702) 456-5396 or B. Scan-borough, WA6ASI, (702) 269-9551 8/01

Sierra Intermountain Emergency Radio Assoc., (SIERA). Meets 2nd Thurs./monthly, 7:30 p.m., Minden Med. Cntr, Hwy 395 & Ironwood Dr., Minden, NV. Info: George Uebele, WW7E, (775) 265-4278, ww7e@arrl.net, Rpt. 147.330 MHz. 1/02

NEW HAMPSHIRE

Port City ARC, (PCARC), W1WQM. P.O. Box 1587, Portsmouth, NH 03802. Meets 1st Wed./monthly (Sept.-June), The Edgewood Ctr., 928 So. St., Portsmouth. Rptr. 146.805(-) PL 127.3, 110.9, 88.5. 2/02

NEW JERSEY

Bergen Amateur Radio Association, (BARA). P.O. Box 304, Hackensack, NJ 07601. Meets 1st Sun./monthly, New Milford Elks Lodge, Patrolman Ray Woods Dr., New Milford, NJ 07646. Nets: 28.350 Mon. 9 p.m., 146.79(-) 9 p.m. Wed. 6/01

Jersey Coast DX Assoc. (JCDXA). P.O. Box 357, Bradley Beach, NJ 07720. Meets 4th Wed./monthly, 7:30 p.m., MARS Station on Ft. Monmouth, Rt. 35 & Tinton Ave., Eatontown, NJ. Info: Mike, KC2Q (732) 774-1095 kc2q@arrl.net 3/02

The Garden State Amateur Radio Assoc., (GSARA). Meets 1st & 3rd Wed./monthly, 8 p.m., MARS Bldg., Fort Monmouth, NJ. Info: B. Buus, W2OD, (732) 946-8615. 2/02

South Jersey Radio Assoc., (SJRA), K2AA. Meets Jan.-Oct., 4th Wed./monthly, 7:30 p.m. (Nov.-Dec. 3rd Wed), Bloomfield Fire Hall, Pennsauken, NJ. Talk-in: 145.29(-) rptr. 8/01

NEW YORK

Amateur Radio Association of the Tonawandas, (ARATS). P.O. Box 430, No. Tonawanda, NY 14120. Meets 3rd Tues./monthly (except July & Aug.), 7:30 p.m., Sweeney Hose Co., 499 Zimmerman St., No. Tonawanda, NY. Talk-in: 146.955(-) rptr. W2SEX. 2/02

Genesee Radio Amateurs, (GRAM). P.O. Box 572, Batavia, NY 14021-0572. Meets 3rd Thurs./monthly, 7:30 p.m. (except Jul Aug Dec), Salvation Army Com. Cntr, 529 East Main St., Batavia, NY. URL: <http://hamgate.sunyerie.edu/~gram> 6/01

Hall of Science ARC. P.O. Box 150131, Kew Gardens, NY 11415. Meets 2nd Tue./monthly, Hall of Science Bldg., 47-01 111 St., Flushing Meadow Park, 7:30 p.m. Info: Voice mail (718) 760-2022. 3/02

PROS, Pioneer Radio Operators Society. Meets 1st Wed./monthly, 7 p.m., Sardinia Town Hall, Savage Rd., Sardinia, NY. K. Moon, N2IFG, (716) 652-0923. 6/01

South Towns Amateur Radio Soc. (STARS). Meets 1st Thurs./monthly, 7 p.m., Hamburg Youth Cntr, Prospect Ave. Hamburg, NY (exc. Jul, Aug @ NIKE Base). Info: N2TEZ, 120 University Ave., Depew, NY 14043. Rpt: WB2ELW 147.090 (+) PL107.2 www.WB2ELW.com. 2/02

Suffolk County Radio Club, (SCRC). Meets 3rd Tues./monthly, 8 p.m., Bohemia Rec Ctr., Ruzicka Way, Bohemia, NY. Talk-in: 145.21(-) rpt. Info: W. Black, KB2YAP, (631) 289-5587. 7/01

Westchester Emergency Comm. Assoc., (WECA). Meets 2nd Mon./monthly, 7:30 p.m., Westchester County Ctr., White Plains, NY. Contact WECA INFO LINE (914) 741-6606 for details. Talk-in WB2ZII/R 147.06(+) PL 114.8/2A. 11/01

Westchester FM Repeater Ass'n. K2JQB Rptr. 146.91 MHz. Meets 3rd Thurs./monthly, 7-9 p.m., Yonkers Pub. Lib., 1500 Central Pk. Ave., Yonkers, NY, near S.E. corner of Tuckahoe Rd. Free Parking. Info: M. Grossman, K2CON at (718) 544-2370 or E-mail: K2CON@hotmail.com 6/01

Yonkers Amateur Radio Club, (YARC). Meets 2nd Sun./monthly, 10 a.m., 1st Pct., Yonkers Police Station, E. Grassy Sprain Rd., Yonkers, NY. Info: P.O. Box 378, Centuck Sta., Yonkers, NY 10710. (914) 963-1021. 146.865(-), 440.150(+). 2/02

OHIO

Ashtabula County ARC. Ken Stenback, W8KS (964-7316). County Vo-Ed School, Jefferson, OH. Meets 3rd Tue./monthly, 7:30 p.m., County rptr., 146.715(-). 2/02

Clyde Amateur Radio Society (CARS). Meets 2nd Tue./monthly, 7:30 p.m., Municipal Bldg., Clyde, OH 43410. NF8E rptr. 145.35(-) and 442.625(+) MHz. Net Sun. 9 p.m. Info: E. Remaley, KA8CAS. 1/02

Van Wert Amateur Radio Club, Inc. Meets 1st & 3rd Sat./monthly, 8 p.m., Van Wert County EMA Office, 1220 Ridge Rd., Van Wert, OH 45891. Call-in: 146.25/85. www.redrival.com/w8fy 7/02

OREGON

Central Oregon Coast ARC. P.O. Box 254, Florence, OR 97439. Meets 2nd Sat./monthly, at Bliss' Route 66 Restaurant at Hwy 101 & 12th St. Net Wed. 7 p.m., 146.80(-). Info: 997-2323 or 997-4074. 6/01

Umpqua Valley Amateur Radio Club, Inc. P.O. Box 925, Roseburg, OR 97470. Meets 3rd Thurs./monthly, 7:30 p.m., Douglas County Court House, Rm. 310, Roseburg, OR. Info: K6AZW/R 146.90(-) (PL100) or (541) 784-3621. 8/01

PENNSYLVANIA

Merger County ARC, W3LIF. P.O. Box 996, Sharon, PA 16146. Meets 4th Tue./monthly, 7:30 p.m., Shenago Valley Med. Ctr, Farrell, PA. Net, Thurs. 9 p.m. on 145.35(-) W3LIF, Digi. 145.05. 6/01

TEXAS

Tri-County ARC for Parker, Tarrant & Wise Counties, (WC5C). Meets 1st Sat./monthly, 6:30 p.m., El Paseo Restaurant, Stewart St. at Main, Azle, TX. Info: kb5ylg@yahoo.com or (817) 291-5816 2/02

VIRGINIA

Mt. Vernon ARC, (MVARC). Meets 2nd Thur./monthly (except Dec.), 7:30 p.m., INOVA Mount Vernon Hospital, 2nd floor, ENG Conference Cntr. Rm. Info: Bob, KT4KS, (703) 765-2313. E-mail: mvarc@juno.com. Web: www.mvarc.org/. Net: Tue., 8:30 p.m. 146.655-. 10/01

Ole Virginia Hams ARC, (OVH). Meets 3rd Mon./monthly, 8 p.m., Northern Virginia Electric Coop. Tech Cntr., 5399 Wellington Rd., Gainesville, VA. Info: Mary Lu, KB4EFP, (703) 369-2877. <http://www.qsl.net/olevahams> 3/02

Portsmouth ARC. Meets 4th Thur./monthly, 7:30 p.m., Am. Red Cross Chapter house, 700 London Blvd., Portsmouth, VA. Talk-in 146.850. Info: C.I. Clements, Pres. (757) 484-0569. <http://www.series.2000.com/users/w4nvi/parc/htm> 6/01

Virginia Beach ARC. Meets 1st Thurs./monthly, 7:30 p.m., Virginia Wesleyan College, Wesleyan Drive off North Hampton, Village 2 Commons, Graybeale Bldg., Virginia Beach, VA. 2/02

Woodbridge Wireless, Inc. (WWI). Meets 2nd Tues./monthly, 7:30 p.m., Canterbury Woods Comm. Cntr. (corner of Springwoods & Chaucer), Lake Rige, VA. Talk-in 147.24(+). For info: <http://www.pwcweb.com/wwi/> 7/01

WEST VIRGINIA

Jackson County ARC Meets 1st Thurs./monthly 7:30 p.m. St John Episcopal Church of Ripley. Net Mon. 9 p.m. on 146.67(-) Info: Valerie Hunter, WB8ZOC. P.O. Box 62 Cottageville, WV 25239. 7/01

Tri-State Amateur Radio Association. Meets 3rd Tues./monthly, 7 p.m., Museum of Radio & Tech., 1640 Florence Ave., Huntington, WV 25701. (304) 525-8890. 6/01

WYOMING

Sheridan ARC. Meets every Sat. at Bubba's, 7:30 a.m. exit 23 off HWY I-90, Sheridan, WY. Club call: W7GUX, 146.22/82. Info: G. Roelfsem, K7GR 8/01

University ARC. Meets 1st Tues./monthly, 7:30 p.m., Univ. of WY, Engineering Bldg., rm. 2100, Laramie, WY. 146.01/61. 12/01

What's new in Amateur Radio satellites

It's June, and hopefully summer is nearly upon us. In terms of satellite operation, it's a good time — especially with the latest news concerning AO-40 (or Phase 3D). More and more is being learned about the bird, what happened in December with the engine misfiring, and how to bring it back under control.

A detailed analysis of the problems of 13 December 2000 were given by both AMSAT-NA and AMSAT-DL in March. As I stated in my last column, it was due to a helium pressure problem that caused the 400N Motor to burn too long. Consequently, the satellite moved into an unexpected orbit. This was followed by a full shutdown of the bird's transmitters. The control operators were able to bring telemetry back online Christmas Day. The following items have been found to be working; the 2-meter, 70cm, and 1.2 GHz receivers, the S-2 (2.4 GHz) transmitter, the magnetorquing system, the YACE camera, IHU-2 and the high-gain antennas. The following items are believed not to be working; the 2-meter and 70cm transmitters and the omni-directional antennas.

Many systems still need to be tested. We still do not know the status of the arcjet motor, an important item, needed to position the satellite for future use. It is known that the satellite has lost mass, and it has been attributed

this to the loss of bi-propellant fuel from the 400N motor. The satellite spin rate had increased as the overall weight decreased, but by using the magnetorquing system the spin rate is now nearly down to a usable 5 rpm. In addition, the heat pipe system (which became unusable at the higher spin rates) has now become effective again.

It was planned to move the satellite into an orientation that pointed the directional antennas toward Earth, but to do the move as originally planned using magnetorquing alone would take a very long time. It is also noted that there appears to be an atmospheric drag on the bird at perigee of the orbit (its lowest point). This phenomenon, in conjunction with magnetorquing, will be used to move the bird into a position for testing the other systems. It is hoped that this will allow some

limited use of the bird for a period sometime this summer. Stay tuned to the AMSAT News Service or your favorite magazine (*Worldradio*, of course!) for current information.

End of Mir

In other news, Mir came down safely — and I didn't get my taco! As you may have heard, reports were circling all around about whether the Russian controllers could really bring the aging space station down safely. They took out an insurance policy just in case, and this really brought the skeptics out in droves. Taco Bell went so far as to have a "target" floating near the expected re-entry site, and stated that if the main body of Mir hit directly on the target, everyone in the U.S. would be eligible for a free taco! It was a great publicity stunt — but all went very well, and the orbiter went harmlessly into the Pacific. CNN had some great coverage of the event, and even showed screen shots from W9IP's popular NOVA tracking software!

ISS

In terms of space stations, ISS Alpha is continuing to operate flawlessly. Current inhabitants include Commander Yuri Usachev, UA9AD/R3MIR, and astronauts Susan Helms, KC7NHZ, and Jim Voss. Susan has been quite active since her arrival aboard the station, and she can be found calling CQ when you least expect it. Additionally, the packet system should be up and running for general public use now. As always, for additional current operational information, check out the ARISS web site at <http://ariss.gsfc.nasa.gov/>.

The following frequencies have been announced for ARISS general QSOs: voice and packet downlink
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voice uplink
144.49 Regions 2 and 3
voice uplink
145.20 Region 1
packet uplink
145.99 (worldwide)
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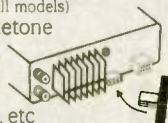
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A self-addressed, stamped envelope is required to get a QSL in return. The ARISS international group has not yet finalized a QSL card design, so it could be a few months before cards become available.

AMSAT-NA Board of Directors' meeting

The Board of Directors of AMSAT-NA met 24-25 February 2001 in Orlando, Florida to consider a number of items, specifically the format and nature of the next AMSAT satellite project(s).

During the meeting it was recognized that it will be some time before a full evaluation of AO-40 will be completed and that all of the designed functions of that satellite may not be available. It was also recognized that it takes several years from initial concept to launch for any new satellite project, and that the year 2001 is the right time to start the planning and design process for the next series of satellites.

They approved the following three projects:

First, a new satellite to be placed into a geostationary transfer orbit. The proposed satellite project would feature communications at 2 Meters, 70 centimeters, 1.2, 2.4, and 5.4 GHz, with actual uplink/downlink frequencies to be determined. The satellite would weigh a maximum of 100 kg in mass and would have a power consumption of about 100 watts. Stabilization would be provided by spinning the spacecraft.

Second, the Directors approved the idea of designing, building and testing a new Internal Housekeeping

Unit (IHU) for use in future AMSAT satellites. The existing design, although very stable, uses components which are very hard to find. A new unit design would use improved techniques and more readily available components.

Third, the Board approved design, construction and demonstration of a new mode using digital modulation techniques. This would improve communications under very poor conditions or, alternatively, permit the use of lower power and/or simple antennas.

It is anticipated that both the second and third projects would be ready to be a part of the main satellite project, with both a digital modulation system along with traditional SSB/CW modulation techniques.

There has been a great deal of discussion over these projects on AMSAT-bb of late, and most of the comments have been favorable. Obviously, there will be costs involved, and the membership will have to be aware of the fact that our

days of "free" launches have basically ended. As with all past AMSAT work, much of it will be volunteered, but there will still be a need for donations to the cause to help us to have new satellites to use in the future. I'll present more on this topic as it develops.

In other news, the 2001 AMSAT-NA Annual Symposium is scheduled for 5-6 October 2001 in Atlanta, Georgia. If you are interested in attending this year, check out the AMSAT-NA web site at <http://www.amsat.org> for more information.

Well, as always, I'm running a bit long this month, so I'd better sign off for now. If you need additional information, feel free to drop me a line via snail mail or at n8ki@amsat.org. Hope to hear you soon on the birds!

— Terry Douds, N8KI, our out-of-this-world satellite columnist can be reached by sending snail mail to: 344 E. 5th Ave., Lancaster, OH 43130-3143, or by e-mail sent to: n8ki@amsat.org.

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A rough time

This may be the hardest column I have written since the beginning some 10 years ago. As I sit here now, early in April, it seems like an eon ago that it all happened. On 14 February I received a call from Morrie Goldman's (W6EHM #4189) daughter that her dad, our Scholarship Manager, had become an SK on 12 February. Needless to say this was quite a shock to me as Morrie and I had been good friends for almost 50 years. We worked together at North American Aviation during WWII and were Ham buddies and 10-10 members since the 1950s. We would see each other not only at the office, but at the quarterly 10-10 Brunch and Business Meeting. A quarterly brunch and business meeting was the way 10-10 was run in those days. The officers, members and their wives would gather once each quarter for a social good time and conduct the business of 10-10.

After receiving the call about Morrie, I immediately called President Tom and gave him the sad news. That was early afternoon. Early the next morning we received a call from Tom's wife, Jean, telling me Tom had a major heart attack late the night before and was in a coma. This was only some 10 hours after Tom and I talked about Morrie and other 10-10 business. This was a double shock — Morrie, and now,

Tom with a severe major heart attack. Jean keep me informed on a daily basis, and I posted Tom's medical updates regularly on the 10-10 list. Tom hung in there for almost three weeks but on 4 March the dreaded call came that Tom had become an SK.

The call came about 9:45 p.m. local time. I was working one of my shifts for the Sun City West Posse. I received a call on my cell phone from the XYL, Esther, KB6HW #23331, advising me that Tom had died. Although it was somewhat expected, it was still a shock. About 10:30 p.m., I began having some chest pains, which I believed to be indigestion. By about midnight, at the end of my shift, the pains were more severe and I decided to go the Emergency Room at our local hospital. After spending some time in Emergency, I was admitted to a room for observation. On Monday evening it was determined that I had had a heart attack and needed an emergency cardiac catheterization during which they inserted two stints. The procedure was deemed a success and I went home on Wednesday afternoon and the rest is history. As I write this, early April, I feel as good as new.

Tom had some strong ideas about how 10-10 should be run and how our volunteers should perform their jobs. He and I would talk regularly and "talk out" many of the 10-10 problems. Tom

was a strong supporter of the 10-10 Scholarship Fund and each year at the Board of Directors' meetings, he would propose to increase the scholarship fund from the previous year to a new level, now five (5) \$1000.00 scholarships each year from an early beginning of one (1) \$500.00 scholarship a year.

Tom and Jean had become personal friends of ours, and he will be dearly missed by both of us as well as the many, many friends he had in 10-10 and all of Amateur Radio. In accordance with the Bylaws, I have succeeded to the office of President. I know how much 10-10 meant to Tom, and I hope to carry on in a way that would make him proud.

New appointments

The following new appointments have been made to fill the vacancies left by Tom and Morrie. Mike Elliott, K7BOI #54625, has been appointed to the office of Vice President. Mike has been around 10-10 since 1989, recently serving as a Director. Mike has taken over some of the responsibilities that Tom had been doing such as the maintenance of the 10-10 Procedures and Operations Manual.

Serving as the new Scholarship Manager will be Larry Berger. Larry has also been around 10-10 for a long time, as noted by his low 10-10 number, #00407. That's right #407! Larry is a Director and has agreed to take on the added responsibility of Scholarship Manager. With some new things we have coming up in the near future, it will be desirable, if not necessary, for the Scholarship Manager to be an Officer in 10-10. I am looking forward to working with Larry and carrying on work that Morrie handled for so many years.

Our new Worked all States Manager is Cliff Taylor, WB4FBS #48461. All WAS award applications should be sent to Cliff effective immediately. Cliff has been licensed since 1967 and has been active ever since. He was actively pursuing counties, when on

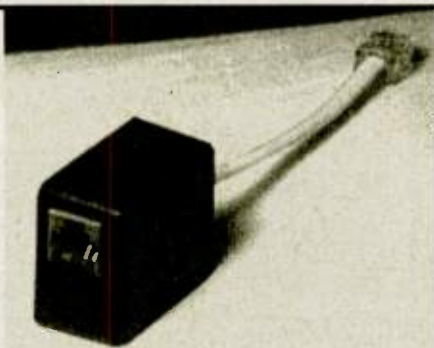
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Christmas Day of 1995, he came up on 10M looking for them, discovered 10-10 and has been on 10M ever since. Even though Cliff obtained his 10-10 number in 1988, he did not participate in 10-10 activities to any extent until that Christmas Day in 1995.

The Countries Award Manager is now Mike Davidson, N5MT #24949. Mike is a natural for this position as he not only holds the record for the most countries worked with a 10-10 number, but tracks all 10-10 DX members accurately. He is up and running as the new Countries Award Manager. Mike became a 10-10 member in 1979, soon after getting his general license. He received his first DXCC award in 1982 about the time he got his Extra Class License. He worked up to Number One on the Honor Roll by working all of the approved countries list just before North Korea was added to the list. North Korea remains his only missing country.

The last new appointment is Jack Moore, K5CC #50708, as the new W6OI club station trustee. Contact Jack if you wish to use the club station call and VP number, W6OI #109, as a special event station. The station call is available to all current paid-up members. Many know of Jack and his "Hill Country Picnic" which has been a highlight of the summer for many years. Jack hosts this picnic each June at his home in the beautiful Texas Hill Country.

10-10 at Dayton

Again this year 10-10 will man a booth at the Dayton Hamvention. If you go, we hope you have a chance to visit with us. More on the Dayton activities next issue.

Work the Numbers Challenge for 2001

The new "Work the Numbers" challenge for 2001 is in progress, but I have not heard from anyone as to how they are doing. Just make a contact with as many of the 10-10 numbers who are between 28000 and 29700 as possible from 01 January 2001 through 31 December 2001. That's

right, contact any of the 1700 10-10 numbers between the 10-meter band edges (28000 and 29700) once during the year. Log the contact and submit your log by 15 January 2001. Let me know how you are doing via the address at the end of this column.

10-10 Convention

Plans for the 8th Biennial 10-10[®] Convention in Worcester, MA on 12-14 July 2001 are complete. A great program of activities has been planned with Chapter Tables, manned by Chapter Members, to discuss chapter activities, a Board of Directors' Question and Answer forum, Saturday forums and a Gala Banquet on Saturday night. A full day trip for the ladies to tour the area, which is rich in historic significance, has been completely sold out. Check the April issue of the 10-10 NEWS for details and a reservation form.

10-10 website

The 10-10 website at www.ten-ten.org is continuously being updated with new information. Check it out.

Information about 10-10?

If you would like information about 10-10, and how you can become a member and receive your very own unique 10-10 number, send \$2.00 and an address label for the return of your information package to: 10-10 International Net, Inc., Attention: Information Package, 643 N. 98th Street - PMB #142, Omaha, NE 68114-2342. No SASE please, as the information package requires a 9x12 envelope. You will receive a copy of the 10-10 Information Brochure, which contains everything you want to know about the 10-10 organization, a listing of all 10-10 Chapters, their day, time, and frequency of net operation and an application form. Also enclosed will be a copy of the QSO Party Information Brochure and a copy of the latest issue of the *10-10 International News*, the 32 page 10-10 quarterly magazine. You can also find just about anything that you need to know about 10-10 on the 10-10 web site. The address is www.ten-ten.org

If your membership in 10-10 has

expired and you would like to renew your dues, send your dues (\$10.00/year or \$25.00 for three years) to: 10-10 International Net, Inc., Attention: Dues Renewal, PMB #142, 643 N. 98th Street, Omaha, NE 68114-2342. You will become an "ACTIVE" member again and receive all of the benefits of 10-10 including the quarterly *10-10 International News*. And, please do not forget to include a donation to the Scholarship Fund along with your due renewal.

Remember 10-10 numbers are issued for life and your originally issued number is always yours. If you have lost, or forgotten, your 10-10 number, send a #10 SASE to the above address marked to: Attention: 10-10 Number, and your original 10-10 number will be sent back to you.

— Chuck Imsande, W6YLJ #19636,
10-10 President, 20815 Desert Sands Drive, Sun City AZ 85375-5443 or e-mail at: w6ylj@arrl.net

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We're LOST!

Kalamazoo County, Michigan ARES/RACES members have developed an excellent program, called "LOST," that could be adapted by those active in NTS activities. During the warm-weather months, they set up portable stations throughout the County in advance of the weekly ARES net. This activity has resulted in a much-improved level of preparedness as well as some excellent community relations and publicity.

When an emergency communications situation occurs, there is little doubt these individuals will be better prepared to set up portable stations wherever they are needed. Not only are they developing skills that will be "automatic" when needed in time of emergency, but they are also having a good time.

A similar exercise could involve NTS nets. An enterprising group of ARES or NTS operators could combine such an exercise with a traffic-handling activity. Several messages could be obtained in advance from one or more served agencies to be originated during a regularly scheduled NTS net. Add a "get together" at a local restaurant or perhaps a barbecue afterwards and everyone has a good time while preparing for an emergency activation.

Over the years, I have had the opportunity to observe radio amateurs in action during a variety of emergency-situations. Amateurs often arrive at key facilities (e.g. shelters, Incident Command Posts, etc.) without such necessities as spare batteries, portable antennas, extra coax, or useful message forms and radio logs. Combining regular "LOST" type activities with traffic origination would do much to prevent these problems and prepare any group of ARES operators for emergency deployment.

For more information, check the LOST Web Page at: <http://www.net-link.net/wmat/werelost.htm>

Layered nets

The human being is a creature of habit. As a result, many ARPS

organizations think in terms of a single VHF repeater when responding to an emergency, much as they would do for a normal club activity or casual public service event. Unfortunately, a single net is typically inadequate for the quantity of traffic generated in time of emergency.

"Club stations can serve a valuable roll..."

Consider just a few of these emergency response functions common to many disasters:

- Initial check-in and deployment
- General tactical communications (vehicle movement, personnel/supplies requests, etc.)
- Damage Assessment
- Incident Command/Emergency Operations Center Interface
- Health and Welfare Inquiry
- Shelter Operations and other American Red Cross (or Salvation Army) functions.

Reporting of weather conditions (Skywarn, flood water levels, etc.).

The simple fact is, most two-meter FM nets will not be able to support all of these functions. There simply is not enough circuit capacity. As a result, it is often wise to layer nets by assigning a unique system or frequency to a specific emergency management function.

For example, an ARES group may plan to have a separate frequency or repeater set aside for initial check-in

and deployment. Amateurs reporting for initial deployment can be directed to staging areas or otherwise informed of what steps are necessary to support the emergency operation without interfering with on-going tactical communications.

Another frequency or repeater may be used for general tactical communications. This might best be described as the "primary emergency net" frequency. This circuit may be utilized for directing the movement of personnel and vehicles throughout the overall disaster area, or general tactical messages not specific to a particular emergency response function.

Point to point circuits may be set up between various Incident Command Posts and Emergency Operations Centers. Portable packet radio capability is often an ideal resource for IC/EOC Interface functions. This mode offers a degree of security as well as reasonable circuit capacity for such critical applications.

UHF simplex or repeater circuits are often useful for communications between Red Cross shelters and similar facilities. The 440 MHz band offers significantly improved building penetration when one must operate from inside a steel-reinforced concrete buildings such as those often preferred by mass care personnel!

Coordination of Damage Assessment activities may take place on simplex or alternate repeater frequencies/bands depending on the nature of the emergency. This is often a stand-alone function, which requires minimal interface with other emergency management functions.

Health and Welfare messages, coordination with state or regional Emergency Operations Centers may take place on a High Frequency circuit via NTS nets.

Of course, each emergency is different. However, the main points are:

1. A single net frequency often lacks the necessary circuit capacity needed for effective emergency response.
2. Several nets, each serving a specific emergency management function are

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often more effective than a single net serving a diverse set of functions.

3. Each mode has unique advantages and disadvantages that may lend themselves to a particular function.

This flexibility to meet the changing demands of emergency response is just one of many advantages that Amateur Radio offers over other radio services, including cellular phones and single-frequency/net two-way radio systems.

Club stations

How often have you monitored a Skywarn Net, or similar emergency operation during which a single operator, often at home, provides liaison between two or more radio circuits. For example, the operator may be attempting to monitor a weather-observing network on the local repeater while simultaneously attempting to monitor an inter-county net serving the National Weather Service office. It seems quite likely that the efficiency of this operator is diminished by the need for multi-tasking.

Club stations can serve a valuable roll during a public service communications activity by providing the facilities for co-locating several operators, each dedicated to a specific radio circuit. This arrangement makes the exchange of traffic between circuits much easier, since messages transcribed on one net can simply be passed to the relevant operator on another net. The result is often less confusion and less "radio time." Each operator can devote his full attention to a specific net, thereby minimizing the possibility of missed calls or lost traffic.

One way to insure that a club station will be staffed and fully prepared for emergency communications is simply by activating it on a regular basis. For example, a club or EOC station could be staffed for weekly ARES nets. In addition, operators could check-in to a Section NTS Net that same evening in order to originate or accept traffic for delivery. This would provide a basic simulation of actual emergency operation by placing the equipment on-air, handling messages, completing radio logs, and processing traffic.

Like the LOST team concept, an Emergency Coordinator could put together a team responsible for maintaining and activating the key station(s) on a regular basis. This will insure that a group of operators is fully familiar with the facility and available to operate it in time of emergency.

Emergency plans

ARPSC programs should insure that an emergency plan is in place. Like a football "play-book," the emergency plan should serve as the primary guide for those responding to an emergency. In the ideal world, an ARPSC organization could respond to an emergency, based on the general guidelines outlined in the emergency plan, even in the absence of key leadership officials.

Recently, I had the opportunity to review a very nice looking communications plan for a public safety agency. During the review process, I asked, "who was involved in the process of drafting this plan?" The answer was "two of our staff members." Much to my surprise, the same plan was not distributed to operations personnel, but rather sat in a locked office at an Emergency Operations Center.

There is a basic truth in emergency management: An emergency plan written in a vacuum will not be used. This is so because those that will be expected to follow it have had no voice in its creation. In other words, they are not invested in the process. Not only was the staff not invested in this particular plan, but they also had no access to it. The simple fact is; this organization has no emergency plan.

It is not always practical for an entire ARES or NTS membership to be involved in the creation of an emergency communications plan, however, they should at least have access to it. With today's electronic mail and Internet capability, most members should be able to obtain a copy (in advance of an emergency) at little or no cost through a web page or similar service.

In our next "Traffic" column, we will go over some details on how to create an effective emergency plan for an ARES organization.

— Jim Wades, our traffic-passin' columnist can be reached by mail sent to: 945 Freeman Ave., SW, Grand Rapids, MI, 49503, or by e-mail sent to: wb8siw@aol.com.

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Women as "Sparks"

Stories about professional and military Morse code operators fascinate me. Imagine, being able to earn a living sending Morse code! I am sure most of the telegraphers did not think of themselves as being particularly lucky, other than being lucky to have steady employment. Perhaps if I had to copy code all day long it would lose some of its charm, but it seems like it would be The Perfect Job. To be an operator on a ship, with a title of "Sparks," would be even more exciting. Not only would you work with the code, but you could travel to exotic ports-of-call and see the world. I was born a generation too late to know whether I would have followed the call of the sea, so I live vicariously through books.

One of my favorite books is "Deep Sea Sparks; A Canadian Girl in the Norwegian Merchant Navy" by Olive J. Carroll. Women were definitely in the minority among the ranks of "Sparks," but their contribution was an important one. Not only did they break the traditional gender barriers, but the service they performed as wireless operators was vital. Records show that the first woman served as "Sparks" in the year 1910. By 1940, at least

thirteen other women had operated on board shipping vessels on the oceans or Great Lakes.

In the Prologue of Olive Carroll's book, she explains that with the outbreak of World War II, ship losses meant losses of wireless operators as well. A dozen or so Canadian women were recruited by the Norwegian Merchant Marine to go to sea as "Sparks." Canadian regulations did not allow women to serve aboard Canadian ships, but Norway had no such restrictions and welcomed the Canadian women who applied.

This book is different from the other historical accounts I have read in that it goes into detail about things other than the technical aspects of the radio room. She writes about the every day life on the ship; their living quarters, the food they ate, their clothing, how they spent their shore leave time, even how they celebrated Christmas. Her experience comes to life as the author shares the emotional toll of being aboard a ship far from home, in addition to the satisfaction derived from the responsibility of being a ship's "Sparks."

One thing that surprised me about Ms. Carroll's experience was how

gallant and receptive the men were of having a woman in their traditionally male territory. I was a ground breaker of sorts, too, in that I was the first woman to be hired as an electronic technician by Chevrolet Engineering back in the early 1970s. The hazing I endured is not fit for print in a family magazine! But in Ms. Carroll's experience, the men took her under their wing and treated her like a sister.

I highly recommend this book, not only to Hams who are interested in maritime operating and the merchant marines, but to anyone who would like an delightful account of a pioneering young woman's adventures. The book is available through Cordillera Publishing Company. For a list of their books send an SASE to Box 46, 8415 Granville Street, Vancouver, B.C. Canada V6P 4Z9.

The Internet is another source for maritime CW history stories. One of the best sites on the Internet is by the Maritime Radio Historical Society (MRHS). The URL, or web page address, is <http://radiomarine.org>.

This site has dozens of photographs of restored equipment including a Radiomarine 4U console from a WWII Victory ship, which is now in a replica

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of a ship's radio room at the San Francisco Maritime Museum.

Be sure to click on The KPH Project link and read the account of what it was like to "be there" when the last commercial messages in Morse code were sent from KFS, their master station. I bet you will have a lump in your throat by the time you finish reading it! And don't miss the "Incredible Radio Tales" link, which will take you to true, first-hand reports of radio adventures and some tall tales.

The most interesting link is to Jeffery Herman's first hand account of what it was like to work in the radio room. He describes the radio operations in detail, complete with observations of what it is like to be monitoring the 500kc frequency at night. Also discussed in length are explanations of proper procedures to be followed on 500kc, and his first SOS. There is also an hour extract of the ships log. See if you can decipher the shorthand they use for their communications!

If you enjoy or operate old military radios and would like a place to communicate with other with the same interest, consider joining the Old Military Radio Net (OMRN). They meet at 9 p.m. EST on Sunday nights on 3.570 and run slow speed CW. Everyone is welcome, but be sure to QRS, or send slowly. "The speed of the fleet is the speed of the slowest ship," as I have heard said.

Keys wanted

Bob Lackey, W4QBE, writes that he is looking for a specific key. He says, "I

was in the Navy back in the 1950's and flew in the old PBY seaplane. I have a transmitter from a PBY, a GØ-Ø, strictly CW. I have been looking for a key like we used in the PBY but have been unable to find one. A lot of Navy aircraft used them so I don't think they are rare, I just haven't been able to find one yet. I think it is called a 'flame proof' key." If you have one of these keys that you want to sell, please contact Bob at his callbook address.

This request for keys is from Bill Bowman, W1HQW. His father owned A. W. Bowman & Co. Bowman & Co. manufactured radios which ranged from crystal sets to the five tube, battery operated Newtrodine B.C. receivers. In addition to radios, they produced two models of telegraph keys.

Both of the keys will have the Bowman company name plate on them. One is a very heavy key with a marble base, chrome plated parts and a navy knob. The other is a light key, oval shaped metal black base, standard knob and a shorting bar. There is also a bug that Bill's father made in his home work shop which closely resembles a Vibroplex bug of the 1930's. It will also have his company name plate on it.

Bill had all three at one time, but in moving from place to place after World War II, they were lost. He admits it's a long shot, but just maybe they will show up somewhere. If you can help Bill out, please contact him at his

callbook address.

I have received several requests to identify keys for people, and I am sorry, but I just do not have the time nor the expertise to help with most of them. If it is something I know, or can find easily, I am happy to help out. But in most cases, I would do the same research that you would. In the upcoming months, I will be writing about how I identify keys.

Field Day

Field Day is just around the corner. Sadly, the ARRL is discontinuing the tradition of the Novice Tent after this year. I hope your club will take advantage of having a Novice Tent one last time. Not only for the "free" points, but for a chance to be an Elmer to Novices and Techs, and show them the joys of putting up their own station and getting on the air. Send me your Field Day stories and I'll share as many of them as I can in an upcoming Positively CW.

The FISTS Spring Sprint is 1700Z-2100Z, the second Saturday in May. For rules and entry application, look on the FISTS Web page <http://www.fists.org>. Hope to work you then! 73 88 Nancy WZ8C



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Dual range power meter for the QRPer

This is one of those projects that in the beginning you wouldn't have thought would be worth writing home about — let alone writing for publication in *Worldradio*.

Devices for measuring QRP output power are many and varied — a dime a dozen! Just thumb through virtually any technical manual, journal or magazine devoted to low power operation. Power meters are everywhere, and have been so for years.

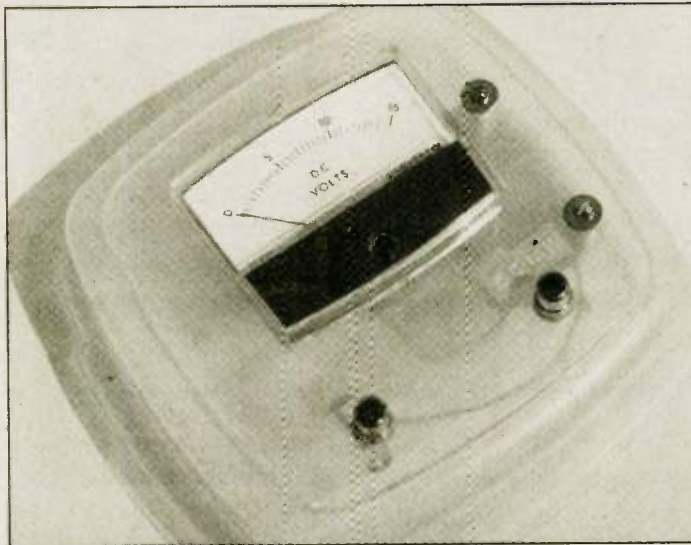
My foray into building the dual range unit you see in the accompanying schematic and photographs began quietly as a preparatory step to construction of a QRP transceiver featured in *QST* magazine last July.

In "The Micromountaineer Revisited," Wes Hayward, W7ZOI, recommended that while building, the homebrewer use a small power meter for testing and peaking stages during construction of his lightweight CW transceiver.

The deeper we got into homebrewing the 'ZOI power meter at KI6SN, the more the plot thickened on several levels — technically, physically, educationally and on the satisfaction index.

Wes is the first to point out that the circuitry creating two range measurements in this device have been around for a long, long time. "It's hardly unique or profound," he wrote in an e-mail. The 'ZOI branding comes in the use of the two range options in one measuring device.

One side accepts up to 1-watt input; the other, up to 50 mW (milliwatts). For QRPer these ranges are extremely useful. Obviously, the 1-watt range is



A plastic Rubbermaid food container serves as the housing for the dual-range power meter.

valuable for measuring transmit output in the single watt region and below. The 50 mW range can come into play in measuring milliwatt transmitter output, of course. But it also has tremendous application when testing intermediate stages of transmitter or transceiver circuitry where power levels are often paltry at best.

In 'ZOI's *QST* article, his power meter uses a 0-1 millimeter for readouts. Wes suggests, though, that a 0-15 volt DC panel mount voltmeter available from RadioShack (RS 22-410) is a fitting substitution for the millimeter. That's the path I chose.

Examination of the schematic reveals that in both the low and high-power ranges, the input is greeted by a 50-ohm load. In the 1-watt range this is achieved by placing two 100 ohm, two-watt resistors in parallel to ground.

In each range circuitry, the input voltage is rectified through a diode and applied through a resistor to the RadioShack voltmeter. To get a full 15-volt reading on the 1-watt range setting with the RadioShack meter, it's necessary to feed the input voltage through a 15K resistor (unlike Wes' published schematic in which a 10K resistor is used with the 0-1 millimeter).

A 1N914 diode is used in the 1-watt range. For more sensitive milliwatt readings, a 1N34A germanium diode is used in the 50 mW range, feeding the meter through a 1.5K resistor.

As life goes, I wanted to get going on homebrewing this power meter but wasn't particularly excited about wrestling with drilling, filing and deburring a metal chassis — especially when a full-sized panel-mount meter is involved.

I happened to be passing through the kitchen during this lament when a small, plastic food container caught my eye. Hey, why not mount the 'ZOI

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power meter in a Tupperware-style container? It would be a piece of cake to drill (pardon the pun) and the snap-on lid could serve as the plane on which the whole lash-up would sit on the operating table.

A cruise down the housewares aisle at the local supermarket provided a dizzying array of choices. I settled on a Rubbermaid Servin' Saver 2-cup container that was about the right size and shape for mounting the RadioShack DC voltmeter and power meter circuitry.

I'd use the bottom of the container (measuring about 4.5 X 4.5 inches) as the top plane of the power meter. As if by some celestial intervention, the molding process of the container left a small-diameter circle etched on the base of the container that was the perfect guideline for the RadioShack meter's mounting hole. It's dead center of the base and darned-near the perfect diameter for the meter.

At KI6SN a small piece of double-sided printed circuit board was used to mount the power meter components "Manhattan-style," using the PC board as a ground plane and small circular pieces of single-sided PC board as islands on which to mount the resistors, diodes and capacitors.

Once the components were soldered into place, the PC board was mounted on standoffs beside the meter on the inside of the Rubbermaid container. All that was left was to mount two RCA-style input jacks (one for each measurement range), and complete the wiring between those jacks, the meter and the PC board.

Buttoning up the unit by snapping the plastic lid onto what was now the bottom of the power meter enclosure set the scene for smoke testing.

Measurements on the NB6M Mini-Boots amplifier (described in the February *Worldradio* QRP column) resulted in a pre-setting of the power output potentiometer to produce 1 watt. So the amp was elected as the guinea pig output device to test the 1-W range of the new power meter. Sure enough, on key-down the meter popped to slightly more than 9.5 volts on the RadioShack DC meter.

Now it was up to the math to confirm



Manhattan-style construction was used to mount the power meter's components on a small piece of printed circuit board.

or deny the new meter's accuracy: P (mW) = $10 \times (V + 0.7)$ squared. By the actual numbers, that's $10 \times (9.5 + 0.7)$ squared, or $10 \times (104.04)$, or 1040.4 milliwatts. So we're showing 1.04 watts. Right on the money.

Using this formula, on the 1-watt scale, 1 volt indicates 30 mW; 2V, 73 mW; 3V, 137 mW; 4V, 221 mW; 5V, 325 mW; 6V, 449 mW; 7V, 593 mW; 8V, 757 mW; 9V, 941 mW; 10V, 1.14 W; 11V, 1.37 W; 12V, 1.61 W; 13V, 1.88 W; 14V, 2.16 W; and 15V, 2.46 W.

So, why are we calling this the 1-watt range, you ask? In the meter circuit Wes

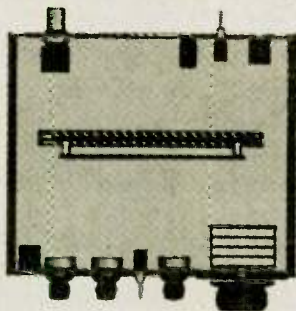
published in *QST*, the 0-1 millimeter has a 10-volt reading at full scale. By the formula, that's 1.14 watts, making perfect sense to call it the 1-watt range in his situation. In truth, using the RadioShack 15-volt DC meter extends the range to almost 2.5 watts.

Complimented by the second milliwatt range, this power meter is extremely versatile — especially given the number of 2-watt output QRP transceivers in use today.

Calibrating the 50 mW meter range is a bit trickier than using simple math in the 1-watt range. For best results, the builder will need to do measurements of his own on this unit. Using several sources as references at KI6SN (including a couple of calibrated milliwatt power meters, an RF probe and others), the 50 mW range measures in the area of 600 microwatts on the bottom end (1V reading), to 61 milliwatts on the top (15V). It is suggested to use your own reference sources to determine the parameters of the 50 mW range on your particular power meter.

— Richard Fisher, KI6SN, our very low powered columnist can be reached by sending snail mail to: 1940 Wetherly St. Riverside, CA. 92506, or by e-mail sent to: kibsn@aol.com.

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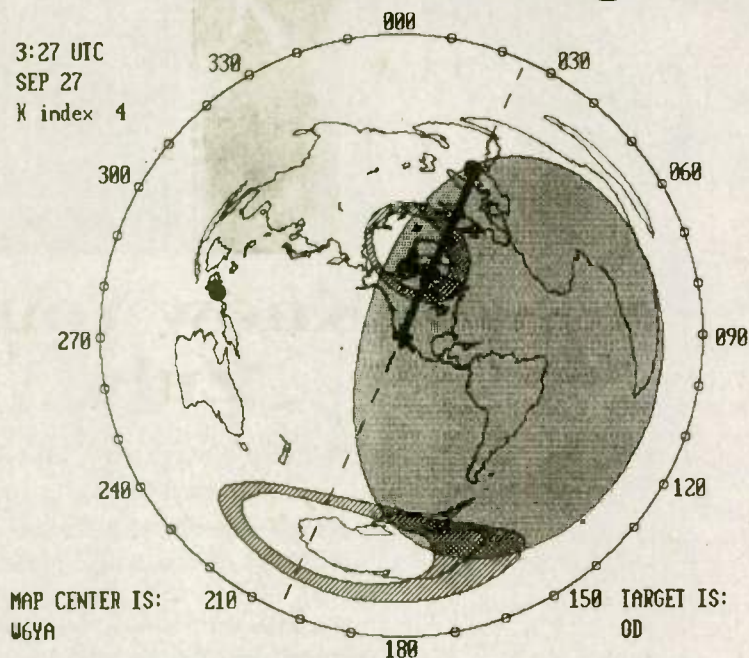
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Unusual QSO on 40M



Short and Long Path from W6YA to OD5LX

The QSO occurred on 27 September 1981 at 0327 UTC. Jim McCook, W6YA, was listening to a pileup of East Coast stations working OD5LX. He said OD5LX was barely a whisper at his QTH, so he didn't even throw his call into the fray. He hung around a bit to see if the OD's signal would peak, but nothing happened. He finally gave up, and decided to rotate his two element delta loop from the northeast (short path to OD) to the southwest in preparation for long path DXing the next morning.

When the antenna got around to about 210 degrees (the long path heading to OD is 203 degrees), he realized he was hearing OD5LX. The OD was 579 now, and he worked him on the first call. What made this unusual in his mind was the fact that long path to OD was unheard of during that time of day from his QTH.

Figure 1 shows the path from W6YA to OD on an azimuthal equidistant map (courtesy of DXAID 4.5 by Peter Oldfield). The auroral ovals are superimposed on the map for a k index of 4 (which was what was happening during the 03-06 UTC time period on 9/27/81). The thick solid line is the

short path, and the thin dashed line is the long path.

It didn't take too long to understand why the short path from W6YA to OD5LX wasn't too good — the short path went right through the disturbed auroral oval. Doing the same map for the East Coast to OD shows their path just misses the auroral oval at $k = 4$, so they had a much better shot at working OD5LX in spite of the elevated k index. The long path from W6YA to OD5LX doesn't look too good due to too much absorption in all the daylight along that path. Both MINIPROP and IONCAP confirm this, with predicted long path signal levels many, many dB below the noise floor of our receivers. Thus long path wasn't available, but something made it look like long path — what was it?

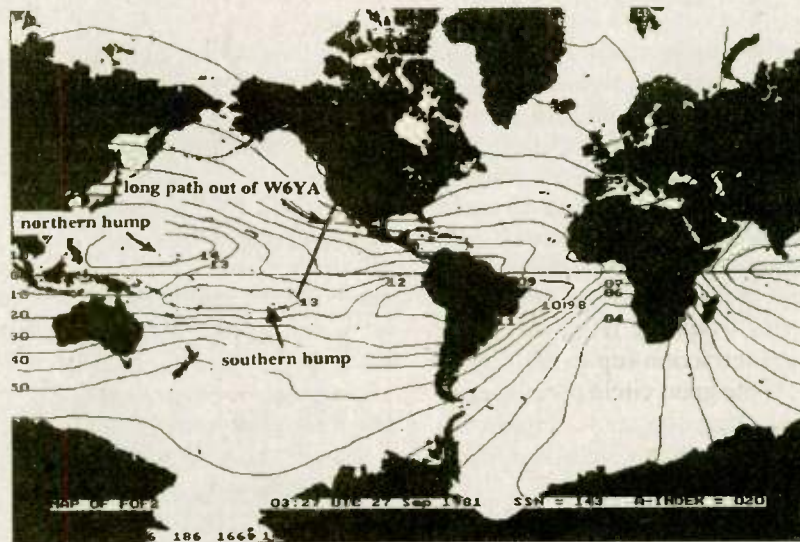


Figure 2 foF2 Map Highlighting Equatorial Ionosphere

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My first concern was that it might have indeed been short path, and somehow Jim's antenna was fooled by high angle radiation being better received off the back of the antenna than the front. But modeling his delta loop with K6STI's NEC/Wires 2 showed this to be unlikely.

Next, studying Figure 1, I considered that RF heading out of W6YA on the long path could be refracted away from

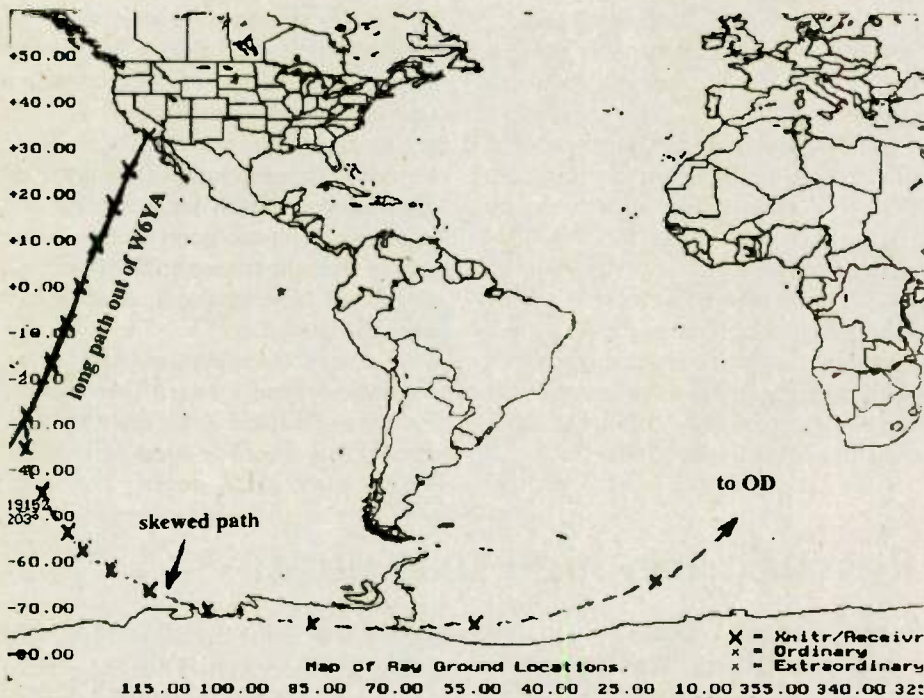


Figure 3 Ground Reflection Points of Ray Trace

the terminator to the southeast and follow a great circle path in darkness to OD. Just as a vertical electron density gradient refracts up-going signals back to earth, perhaps the horizontal electron density gradient across the terminator could refract signals enough to do this. So using Proplab Pro I shot rays at the terminator to see how much they would be refracted. There was some refraction (up to 10 degrees or so) off the great circle path, but not enough to turn the ray all the way to the southeast so it could go to OD in darkness.

I also played with refraction/reflection off the southern auroral oval, as my antenna modeling effort showed that a delta loop has a vertically polarized lobe about 90 degrees either side of the main front lobe at about 10dB down. With the antenna pointed to 210 degrees, the left-side vertically polarized lobe would be at about 120 degrees. That's to the southeast and puts it in darkness. I didn't carry this idea too far, though, as I didn't know how to address the polarization issue. Additionally, this mechanism would restrict the path to antennas with vertically polarized lobes off the side

— that eliminates Yagis, and that just didn't sit too well with both Jim and me.

What all the above suggested was refraction, but with some extra help to get the RF turned to the southeast. Looking at an foF2 map (a map of the F2 region critical frequencies) for the time of the QSO showed the eastern edge of the double humped electron density characteristic of the equatorial ionosphere to be enticingly close to the long path heading out of W6YA. Figure 2 shows this. The southernmost hump presents a nice gradient on a 203 degree heading, so I shot rays out of W6YA on this heading. Lo and behold, I found an elevation angle that gave a significant skew to the southeast.

Figure 3 shows the resulting ray trace out of W6YA, with the ground reflection points indicated with x's. Note that the ray follows the 203 degree heading until about 25 degrees south latitude, then skews to the southeast. It is now following a great circle path in darkness that would get very close to OD if it was extended (I couldn't ray trace any farther than what's in Figure 3 due to Proplab's limitation of



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Minimum System Requirements

PC	MACINTOSH
Pentium 200 or compatible	PowerPC System 7 or greater
Windows 95	32MB of RAM
32MB of RAM	8X CD-ROM drive
8X CD-ROM drive	

20,000km). Since this is 40M and it's in darkness, there isn't much absorption. Thus signal strength shouldn't rule this out.

Kind of neat, isn't it? The equatorial ionosphere, probably with some help from the terminator, appears to be the underlying reason for this 40m skewed path QSO. From my October 1998 *Worldradio* column, the double humped characteristic of the equatorial ionosphere is most prevalent at sunspot maximum around the equinoxes in the early evening hours, so this fits in nicely with the QSO date and time.

Can I prove any of this? Unfortu-

nately, the answer to that is 'no'. But this hypothesis has one big thing going for it — the physics of the ionosphere says it's possible.

The task we're faced with on these unusual paths is understanding the applicable physics. Not knowing the underlying physics can lead to some pretty wild speculation that sounds good, but fails even the most simple physical tests.

— *Carl Luetzelschwab, K9LA, our propagation forecastin' guru can be reached by sending snail mail to: 1227 Pion Dr., Ft. Wayne, IN., 46845, or e-mail to: k9la@gte.net*

Rescue from high-seas pirates

Amateur Radio operators assisted in a high seas rescue operation after pirates attacked a private sailing vessel 20 March off Venezuela. The skipper reportedly was shot, and his wife summoned help via the Maritime Mobile Service Net on 20 Meters. The victim was reported to be recovering in a Trinidad hospital.

According to Coast Guard Lt. Jose Diaz, KP3J, of the Rescue Coordination Center in San Juan, Puerto Rico, the 44-foot ketch *Lorna*, of Swedish registry, was enroute to Trinidad and Tobago when pirates attacked some three nautical miles offshore. The husband was shot in the abdomen.

The pirates destroyed the VHF radio, so the woman activated an emergency locator transmitter (ELT). The San Juan Rescue Coordination Center received ELT "hits" from the *Lorna* and notified Venezuelan authorities.

Word arrived at Miami Coast Guard some 90 minutes later from the Maritime Mobile Service Net's Mike Pilgrim, K5MP, of a distress call from the *Lorna* on 14.300 MHz. Miami Coast Guard forwarded the information

to the San Juan rescue center. Diaz tuned to 14.300, where Bobby Graves, KB5HAV, Dave Dalziel, N4ICE, and Jim Hirschman, K4TCV, a physician who had assisted in the van Tuijl pirate attack last year, already had activated an emergency net. An amateur in Trinidad, Eric Mackie, 9Z4CP, also assisted in communications.

Among those standing by on frequency were Ed Petzolt, K1LNC, in Florida, and Hector Godoy, HR3HGB, in Honduras, both of whom were instrumental in the van Tuijl rescue operation a year ago.

Diaz got permission from Venezuela to allow a vessel from Trinidad to assist, and a Venezuelan Navy vessel arrived on scene simultaneously with a Trinidad Coast Guard fast boat, with medical personnel.

High seas made it too risky to move the victim. Instead, the Swedish sailboat continued on to Trinidad escorted by the Venezuelan Navy vessel and the Trinidad Coast Guard cutter. The Swedish skipper of the sailboat is reported in guarded condition in a Trinidad hospital. — *ARRL, Newswire*

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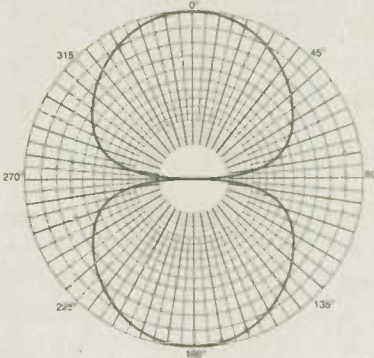
More about radials

“Okay, so you explained why radials are needed under 1/4 wave verticals.

But what I'd really like to know is why you think radials are needed under 1/2 wave verticals. How about a further explanation?”

Kurt is aware that several manufacturers of 'half-wave' verticals claim, "No radials or ground needed." Of course, there is no RF current at the bottom of a half-wave vertical. Usually it is not connected to ground at all, and you can tune it up just fine without any radials. So, why radials?

Krusty Old Kurt will tell you. Just like any other antenna radio waves come off of it. They travel along the ground and induce currents in the ground. If the ground is lossy, meaning it looks like a resistance, then some of



your RF power gets turned into heat in this resistance. That power is lost.

Radials under the vertical lower the resistance and thus lower the loss. You have a bigger signal with than without them.

Verticals are different

A 1/4 wave vertical has maximum RF ground current right at the base

of the antenna. But a 1/2 wave vertical has maximum current about 1/3 wavelength out from the base. So you need longer radials for the 1/2 wave vertical than for the shorter verticals.

“But I get out just fine without any radials,” you say. Sure. You can get out with a wet noodle. Have you measured your field strength with and without radials?

At WWVH on Kauai Island they did. The antenna is a half-wave on 2.5 MHz. That's a big antenna! And they found their field strength to be down until they installed an extensive radial system.

If you've been operating without radials under your 'half-wave' vertical Kurt suggests you buy or borrow a copy of ON4UN's "Low-Band Dxing." This excellent book contains a chapter on verticals which is a good antidote to the

IECARO

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presents

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Riverside, California Convention Center & Holiday Inn
September 7-9, 2001

For additional information visit our web site:

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IECARO was started in 1997. It includes Riverside, San Bernardino, and Inyo Counties. It is comprised of approximately 15 Amateur Radio Clubs. As an ARRL Affiliated Council, IECARO periodically sponsors the annual ARRL Southwestern Division Convention, sharing this task with other councils in the Southwestern Division. Member Organizations collectively join together as Partners and share in both the labors of holding the convention and the profits from that effort. IECARO's first convention was held in Riverside in September 1998 with the next scheduled for September 2001.

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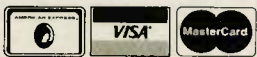
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antenna manufacturers' literature.

Efficiency revisited

In a recent column Kurt explained how lowest SWR on a vertical antenna does not necessarily mean most efficient. A reader got lost in the explanation because Kurt skipped over some of the logic involved. So here is a clarification.

The example was of a 1/4 wave vertical that has a radiation resistance of 36 ohms connected to the transmitter with a 50 ohm cable. The SWR will be 50/36 or 1.39. If the antenna has a perfect ground screen under it (no loss resistance) then all the transmitter power will be radiated. The efficiency of an antenna equals the radiation resistance divided by the total resistance (radiation resistance + loss resistance). In this case $36 / (36 + 0) = 100\%$.

But if the radial system is inadequate and has resistance, say 14 ohms, the SWR will be $50 / (36 + 14)$ or 1:1. But the efficiency suffers because it now is $36 / (36 + 14) = 72\%$.

So, lowest SWR does not mean most efficient in this case. Have you ever wondered about that mobile whip that is a perfect match to 50 ohm cable? Think about it!

One final word: Kurt wants you to notice that the antenna efficiency has nothing to do with the cable impedance or the SWR. If, for example, we used 75 ohm cable the antenna with no loss resistance would have SWR of $75/36 = 2.1$ but the efficiency would still be 100%. The antenna with 14 ohms loss resistance would have SWR of $75/50 = 1.5$ but the efficiency would still be 72%. There would be a difference in cable loss but that is another subject entirely.

Which antenna is best?

"In the course of my 40-meter QSO's I've heard, "Man, this double bazooka is the greatest antenna I've ever owned." Others I hear brag about the performance of the Carolina Windom. Still others, many frankly, enthuse over the prolific G5RV." This reader of Kurt's column wants to know who is right; which antenna is the best.

Well, if best means biggest signal,

there is not much to choose between them. They all, just like the simple dipole, are single-element antennas. That is, they don't have two or more elements that are phased to give gain. So they all are comparable to the dipole when it comes to gain.

Manufacturers and promoters of each antenna may tell you differently but Old Kurt advises you to take their claims with more than just one grain of salt.

As an example Kurt examines the "Carolina Windom." Promotional material for this antenna can be seen at: <http://www.radioworks.com> where we see that it has as much as 10 dB gain over a dipole!

How does it get that? By adding some vertically polarized radiation to the normal horizontally polarized dipole radiation. This gives increased signal at low angles as compared to the dipole. So at some low angles it shows gain over a dipole.

Kurt can use the exact same reasoning to show you that a dipole has as much as 10 dB gain over a large rhombic. Maybe more!

Antenna books tell you that a sizeable rhombic has more than 12 dB gain over a dipole. But antennas don't make power. They just radiate the power put into them. If the antenna puts out a bigger signal in one direction it must put out less in other directions. Rhombics are no exception. As a matter of fact, in some directions they have deep nulls with practically no radiation. And in the directions of the rhombic's nulls the dipole may show over 10 dB relative gain. See?

What's wrong with this analysis? It all goes back to the definition of gain. What exactly is dBd, gain relative to a dipole? It is an antenna's signal output in its maximum signal direction as compared to the signal output of a dipole in its maximum signal direction. It is not a comparison in any random direction.

Krusty Old Kurt wants you to look at the magnificent claims made by manufacturers and those of users of one antenna or another while always keeping in mind these simple fundamental principles. No antenna can violate them.

Contest Chart *By Dave Goodwin, VE2ZP*

Contest	Date & Time	Bands	QSO points	Multipliers	Exchange	Entry Categories	Entries
Telephone Area Codes Contest	1800z 2 Jun 2359z 2 Jun	80-10m CW	5pt/QSO 10pt/QSO with Pennsylvania stns 500pt/QSO with N3EPA	Telephone area codes	RST Name State, telephone area code	QRP (5w), QRPp (1w), portable, homebrew, "newbie" (your first-ever contest) or any combination of these	8 Jul N3EPA or e-mail to n3epa@talon.net
Portugal Day Contest	0000z 9 Jun 2359z 9 Jun	80-10m SSB	6pt/CT, CU 3pt/others 0pt/own country	Portuguese districts and DXCC countries worked on each band	RST Ser# CT, CU will send name of District or region	Single Op All Bands only	31 July PO Box 2483 1112 Lisboa PORTUGAL
TOEC Field Contest SSB	1200 9 Jun 1200 10 Jun	160-10m SSB	1pt/NA 3pt/DX 3pt/any mobile	Total of Maidenhead "Field" locators. The first two letters of your grid square are your "Field".	RST + Grid square (ie. FN25)	Single Op: All band, d Multi-op: Single or multi-tx Single op entrants may not use use PacketCluster	1mo. Box 2063, S-831 02 Ostersund Sweden
WW South America CW	0000z 9 Jun 1600z 10 Jun	80-10m CW	0pt/VE 2pt/NA 4pt/DX 8pt/South Am.	DXCC + South Am. prefixes on each band Final score is the sum of band-by-band scores	RST Ser#	Single Op: All bands, Single band, QRP Multi-op: Single or multi-tx	30 days Box 282 RioDeJan. 20001-970 Brazil
ARRL VHF QSO Party	1800z 9 Jun 0300z 11 Jun	50MHz to microwaves	1pt/50 or 144MHz QSO 2pt/220 or 432MHz QSO 3pt/903 or 1296MHz QSO 4pt/above 2304MHz NOTE: do not use 146.52 or any repeaters	Grid squares worked on each band	Grid Square	Single Operator: Multi-band, single band, QRP portable (max 10w out) Rover (single or multi-op, operating from at least two grids) Multi-op Limited Multi-op (max four bands)	30 days ARRL or e-mail to JuneVHF@arrl.org
West Virginia QSO Party	1800z 17 Jun 2359 17 Jun	160-2m CW, SSB and VHF FM	1pt/SSB QSO 2pt/CW QSO 25pt for your first QSO with WVARC club station W8WVA	Stns outside WV: WV counties (55) regardless of band WV stns: WV counties, US States, Canadian Provinces and territories, DXCC regardless of band.	RST QTH	Single op Multi op Multi/Multi, Mobile	20 July WD8V or e-mail to WD8V@arrl.net
All Asia CW	0000z 16 Jun 2359z 17 Jun	160-10m CW	1pt/20-10m QSO 2pt/80m QSO 3pt/160m QSO Work Asia only	Asian prefixes worked on each band	RST + age (YLS may send 00)	Single op: All bands, Single band Multi-op: Single or Multi-tx	30 July Box 377 Tokyo
SMIRK (6m) QSO Party	0000z 16 Jun 2359z 17 Jun	50MHz	2pt/SMIRK member 1pt/others x2 if QSO made above 50.2MHz	Grid squares	Grid SMIRK # (if you have one)	Single operator only	1 Aug W5OZI or e-mail to contest@smirk.org
ARRL Field Day	1800z 23 Jun 2100z 24 Jun	160m to microwaves				Scoring is complicated. See QST for details.	
RAC Canada Day	0000z 1 Jul 2359z 1 Jul	160-2m CW & phone	10pt/VE 20pt/RAC stns. 2pt/DX	Can. Provinces and Territories (12) worked on each mode on each band.	RST Prov DX and VE0 send Ser#	Single Op: All bands, Low Power, Single band Multi-op	31 July 720 Belfast Rd Suite 217 Ottawa ON K1G 0Z5
Venezuela SSB	0000z 30 Jun 2359z 1 Jul	160-10m SSB	5pt/DX 3pt/NA 1pt/Own country	YV call areas + DXCC worked on each band	RS Ser#	Single Op: All bands, Single band Multi-op: Single or Multi-tx	30 Sep Box 2285 Caracas 1010-A
Fourth of July QRP Sprint (Michigan QRP Club)	2300z 4 Jul 0300z 5 Jul	160-6m CW and SSB	5pt/MI QRP Club Mbr 4pt/DX 2pt/VE or W non-member	US States, Canadian Provinces and Territories, DXCC worked on each band If either your TX or RX were home-made, multiply your score by 1.25. If both were home-brew, multiply by 1.5	RST QTH and MI QRP Club #	A- 0-250mw output B- 250mw-1w output C- 1w to 5w output D- 5w or more output	30 days N8CQA
IARU HF Championship	1200z 14 Jul 1200z 15 Jul	160-10m CW & SSB	1pt/ur Zone 3pt/oth NA Zones 5pt/DX	ITU Zones (75) worked on each band + HQ stations	RST ITU Zone	Single Op: All bands, both or one mode, Single band, Low power, QRP	1mo. ARRL or e-mail to Fieldday@arrl.org
CQ WW VHF	1800z 14 Jul 2100z 15 Jul	50MHz to microwaves	1pt/50, 144MHz 2pt/220, 432MHz 4pt/902, 1296MHz 6pt/2304MHz + +1pt/CW QSO	Grid squares worked on each band	Grid square	Single Op: fixed, portable, QRP (max. 25w) Rover Multi-op fixed more than 5 transmitters Multi-op fixed four or fewer transmitters Multi-op portable more than 5 transmitters Multi-op portable four or fewer transmitters	31 Aug Box 73 Oklahoma City OK 73101 USA
South-East Asia Net CW	0000z 14 Jul 2359z 15 Jul	160-10m CW	1pt/QSO Work SEANET countries only	3 mult pts for SEANET countries: A4 A5 A6 A7 A9 AP BV BY DU EP HL HS JA JD1 JY KH2 P2 S7 VK VQ9 VS6 VU V8 XU XV XW XX9 YB ZK ZL ZM ZL6 ZL9 3B6/7 3B8 3B9 4S 4X 8Q7 9K 9M2 9M6/8 9N 9V		Single Op: All bands, Single band Multi-op, single tx	31 Oct 9M2FK Box 13 10700 Penang MALAYSIA
Colombian Independence Day	0000z 15 Jul 2359z 15 Jul	80-10m CW and SSB	5pt/HK 3pt/DX 1pt/NA 0pt/VE	HK Call areas + DXCC countries worked on each band	RST Ser#	Single Op: All bands, Single band Multi-op: Single or Multi-tx	31 Aug Box 584 Santa Fe de Bogota

Addresses: CQ — 25 Newbridge Rd., Hicksville, NY 11801 USA. ARRL — 225 Main St., Newington, CT 06111 USA Callsign — Callbo Address

Bands: The 30, 17 and 12M bands are never used in any contest. Please confirm the dates of these events on the Internet at: <http://home.sol.no/~janalme/hammain.html>

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WORLD RADIO, June 2001 59

Hamfests — June

COLORADO

Pikes Peak ARA Hamfest 8 a.m. - 2 p.m. 2 Jun. at Lewis-Palmer High School, 1300 Higby Rd., Monument, CO. Adm. \$5 (under 18 FREE), tables \$10, (additional tables \$9/ea.). VE exams at 10 a.m., "Junque" auction at 12:30. For info: Bob Ryals, rryals@pcsisys.net.

GEORGIA

Albany Radio Club Swapfest 2001 9 a.m. - 4 p.m. 9 Jun. at Potter Community Center, Wildfair Rd., Albany, GA. (This is an outdoor flea market only event). Free adm. Plenty of shaded parking, prizes. TI 146.82. For info: Bob Smith, K4PHE, P.O. Box 70601, Albany, GA 31708-0601; phone 229/883-9633; e-mail: k4phe@isoa.net.

Atlanta Hamfest/ARRL Convention 9 a.m. - 4 p.m. at Jim R. Miller Park, Marietta, GA. Adm. #5 (under 16 FREE). Tailgate space \$10/ea. RV/Camping available near the lake. Forums, vendors. TI: 146.820(-). For info: John Talipsky, KA4VQH, 385 Madison Chase Dr., Lawrenceville, GA 30045, Telephone: 770/995-6446, or Atlanta Hamfest, P.O. Box 720398, Atlanta, GA 33058. Web site: www.saf.com/arc/atlfest/htm

ILLINOIS

Six Meter Club of Chicago Hamfest 8 a.m. 10 Jun. at DuPage County Fairgrounds,

2015 Mancheser Rd, north of Roosevelt Rd. (Rte 38 east of County Farm Rd) Wheaton, IL. Adm. \$5/adv., \$6/door. tables \$12, commercial tables \$15. Limited overnight RV parking (must reserve by 25 May) \$10. VE exams at 9 a.m. (pre-reg only). TI: 146.52, 146.37 (107.2). For info: Joseph Gutwein, WA9RIJ, 7109 Blackburn Ave. Downers Grove, IL 60516. Info line: 708/442-4961.

The Sangamon Valley Radio Club Hamfest, 2 June, at Illinois State Fairgrounds (Springfield, IL). VE exams @ 9 a.m. Adm. is \$5 or 3 for \$10. TI: 146.685 MHz (-600). For info: Ed Garrney, KA9ETP, 13977 Frazee Rd. Box 14A. Divernon, IL 62530. Phone: 217/628-3697. E-mail: egaffney@family-net.net. Web site: www.w9dua.net.

KENTUCKY

Northern Kentucky ARC Hamfest 7 a.m. - 2 p.m. 10 Jun. at Summit View Middle School, 5002 Madison Pike (exit 80 off I-275, south 5 mi. on Rt. 17), Independence, Kentucky. Adm. \$4/adv., \$5/door. Inside tables \$15 (includes one admission), outdoor flea market spaces \$2. VE exams, forums, fox hunt. TI: 147.255 & 147.375. For info: Bob Blocher, N8JMW, P.O. Box 1062, Covington, KY 41012. E-mail: nkarc@juno.com; Phone: 513/797-7252.

MAINE

Pine State ARC Hamfest 8 a.m. - 1 p.m. at hermon High School, Rt. 2 Hermon, ME (I-95 exit 44 to U.S. 2 east 1 mile). Adm. \$5, tables \$8. VE exams, forums, dealers. TI: 146.64(-), 146.52. For info: Edward Richardson, K1DTW, 1205 Center Dr., Orrington, ME -4474. Telephone: 207/825-4417; e-mail: edandglo@earthlink.net.

MICHIGAN

The Chelsea Swap - Ham/Antique Radio Swap, 3 June, at Chelsea Fairgrounds. Adm. \$4/adv. \$5/door (under 12 FREE). Table: \$10. Trunk Sales: \$5. TI: 145.450-. For info: WB8IEL@hotmail.com or Bill Altenberndt, WB8HSN, 19501 Bush Rd., Chelsea, MI 48118. MISSISSIPPI

Jackson County ARC Hamfest 5 p.m. - 9 p.m. 1 Jun., 8 a.m. - 2 p.m. 2 Jun. at Jackson County Fairgrounds Civic Center (located behind Singing River Hospital off Hwy 90) Vancleave, MS. Adm. \$3.50, tables \$8. VE exams on Sat. For info: Ira Groff, NN5AF, 17200 Spring Lake Dr. West, Vancleave, MS 39565.

NEBRASKA

The 3900 Club Hamboree 2001, 15 - 16 June, at Siouxland Convention Center, South Sioux City, NE. Forums, seminars and flea market. For more info contact: Tom

The Smith Chart

Electronic Applications of the Smith Chart, by Phillip H. Smith This is an updated edition of the original, classic reference book by the legendary Smith Chart inventor himself. This book describes how the Smith Chart is used for designing lumped element and transmission line circuits and includes tutorial material on transmission line theory and behavior, circuit representation on the chart, matching networks, network transformations and broadband matching. It also includes a new chapter with example designs and a description of *winSmith* (see below). **Our Price \$59.00**

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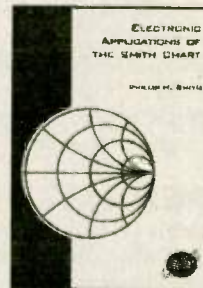


WinSmith, by Eagleware Corp With *winSmith*, engineers can have their PCs draw the Smith Chart and measure the distances from one point to another. Easily creates ladder networks of up to nine elements, which can be transmission line segments, inductors, resistors or capacitors, or user-defined elements. Schematic entry simplifies circuit definition, and the Smith Chart display makes manipulation of values a simple task. Can do frequency sweeps, fine or coarse tuning as needed, and provides precise numerical results. *One 3.5" disk. Runs under Windows 3.1, 95 or NT.* **Our Price \$79.00**

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NEW JERSEY

The Raritan Valley Radio Club Hamfest
2001, 16 June, at Columbia Park. Adm. \$5.
Seller space: \$10 (\$5 each additional space).
TI: 146.625(r), 447.250(r). Tone 141.3.
146.520(s) Info: Doug Benner, W2NJH,
732/469-9009. E-mail: wb2njh@aol.com, or
Fred J Werner, KB2HZO, 732/968-7789.

NEW YORK

Hall of Science ARC Hamfest 9 a.m.
3 Jun. at NY Hall of Science parking lot,
Flushing Meadow Corona Park, 47-01
11th St. Queens, NY. Adm. \$5/donation,
spaces #10/ea. VE exams at 10 a.m. TI
146.52 or 444.200 (136.5). For general
info: Stephen Greenbaum, WB2KDG,
phone: 718/898-5599 (eves. only), e-mail:
wb2kdg@bigfoot.com, or Andy Borrok,
N2TZX, phone: 718/291-2561; e-mail:
n2tzx@webspan.net. VE info: Lenny menna,
W2LJM, phone: 718/323-3464; e-mail:
LMenna6568@aol.com.

The Eastern Chaverim International
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Fallsview/Nevele Hotel, Ellenville, NY.
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Halpern, W2GDS 450 Brighton Ave., Long
Beach, NJ 07740. Phone: 732/222-3009.
E-mail: w2gds@chaverim.org.

LIMARC Spring 2001 Electronic Ham-
fair & Flea Market, 10 June, at Briarcliffe
College, 1055 Stewart Ave., Bethpage, NY
11714. Adm. \$6. Tables: \$15. TI: 146.850
repeater (PL=136.5). Info: 24 hr. Hotline:
516/520-9311. Web site: www.limarc.org.
E-mail: hamfest@limarc.org.

PENNSYLVANIA

Columbia-Montour ARC Bloomsburg
Hamfest Convention/Computer Show 9
June, at Bloomsburg Fairgrounds. Adm. \$5.
Tables: \$20. Set-up: Fri. 08 June, after 6
p.m. AC power \$5, bring your own cord.
Tailgating: \$5 for a 10 x 10 ft space. VE
testing @ 10 a.m. TI: 127.225 (+) PL 203.5,
146.520. For info: Dave Schack, WC3A,
570/752-6851. E-mail: wc3a@arrl.net. Web
site: www.qsl.net/cm-arc.

TEXAS

Ham-Com 2001 08-10 June, at the
Arlington Convention Center(1200 Ball
Park Way). Commercial exhibitors, Indoor
and Outdoor Flea Markets. VE testing,

Luncheon, and more. For more info:
Maury Guzick, W5BGP, Chairman Ham-
Com 2001, P.O. Box 12774 Dallas, TX
75225-0774. Phone/Fax 214/361-7574.
Website: <http://www.hamcon.org>. E-mail:
chairman@hamcon.org.

VIRGINIA

Manassas Hamfest - Amateur Radio/
Computer & Electronics Show 3 Jun.
at Prince William County Fairgrounds.
Adm. \$5. Tables: \$30. Tailgating: \$5. VE
testing: Ruth, KU4WH 703/331-1234,
frizzy2@aol.com. TI: 146.97, 224.660,
442.200. For info: Mary Lu, KB4EFP
7093/369-2877, mblasd1638@aol.com. Web
site: www.qsl.net/olevahams.

Franklin Amateur Radio Repeater Assoc.
Picnic & Tailgate 9 Jun. 9 a.m. - 3 p.m.,
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Apple City ARC Wanatchee Hamfest,
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WA (Opens at noon, 8 Jun.). Adm. \$5/adv.
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tent sites (no hookups). For info: Judy
Chrisco, KA7ZNA, phone: 509/884-1251;
e-mail: ka7zna@msn.net, or John Lathrop,
N7RHY, phone: 509/662-6007; e-mail:
n7rhy@gte.net, or Jeff Henry, K7UJ,
phone: 509/663-1884. For VE info:
Brian Kell, phone: 509/884-8063; e-mail
phoenix@nwi.net.

New awards manager

Radio Amateurs Canada President
Kenneth Oelke has announced the
appointment of Dave Reid, VE6BIR,
as RAC Awards Manager. Reid was
first licensed in May of 1961 as
VE2BIR, and has been an active Ama-
teur since. His main operating interests
are casual DX chasing and contesting,
much of it done QRP style. He is a
Professional Engineer and graduated
from Queen's University in 1965. He
joined TransCanada PipeLines in 1967
and retired from that organization as
Vice President of Engineering and
Construction in 1998. Reid replaces
Russ Wilson, VE6VK, who recently
retired. — RAC, *Newsline*

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MPD-3712	30-15-12M Max-Performance Dipole, 31 ft. long	= \$ 80
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SSD-6	160-80-40-20-15 10M Space-Saver Dipole, 71 ft. long	= \$179
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New Products

Information in "New Products" is supplied by the manufacturers to acquaint *Worldradio* readers with new products on the market.



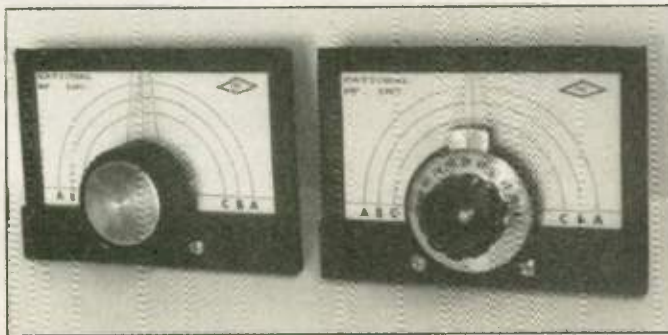
Bliss Z Matchmaster antenna tuners

Bliss Z MatchMaster, a division of Air & Water King, Inc., introduces two new HF tuners to their product line. These tuners are motorized versions of the balanced-balanced tuners. They're designed primarily for balanced feed antenna systems but will also match un-balanced feed lines.

They are built for high power operation — one model is for local use at the operating position and the other for remote operation, in or out of the operating room.

Both models feature two large variable inductors (3" diameter by 5" long) made of silver which were manufactured by Collins Radio, the vacuum variable capacitor made by Jennings Radio, and two vacuum relays by Eimac. They also feature a VSWR & power meter. These high quality tuners are a "Limited Edition."

For more product information, or to place an order, visit the website: www.airwaterkinginc.purification.com, e-mail: angelie@bliss.org, or call 970/882-3922.



National RF analog display dials

National RF's NPD series of analog display dials were inspired by the earlier National Radio Company's vernier dials. Recognizing a need for analog displays in the digital world, National RF's engineers have incorporated existing vernier mechanisms with a baseplate, scale, and pointer to provide an affordable reduction drive assembly. Two uncalibrated paper scales are provided with the unit as well as a clear

plastic scale protector. The user may calibrate or mark the scales as required for the intended application. mitered plastic trim pieces secure the scales to the base plate.

Three display dials are offered, depending on the user's applications. The type NPD-1 measures 2 3/4" high by 3 3/4" wide and utilizes a 1 1/2" diameter, 6:1 drive dial. The types NPD-2 and NPD-3 are both 5 1/8 inches wide by 3 5/8" high. The NPD-2 incorporates a 2" diameter 6:1 drive. The NPD-3 is the same mechanical size but utilizes a different 8:1 drive vernier. All three units use a 1/4 inch shaft coupling to the load. These display dial assemblies are ideal for RF tuning applications, such as receiver main tuning and antenna tuner applications.

The Type NPD-1 retails for \$34.95, the NPD-2 for \$44.95 and the NPD-3 for \$49.95. Shipping, sales taxes are extra. For specification sheets or to order, contact National RF, Inc. 7969 Engineer Rd., Suite 102, San Diego, CA 92111. Telephone: 858/565-1319; FAX 858/571-5909.

Antex C/3U miniature soldering iron

A small precision miniature soldering iron that heats up in under a minute, cools down in two minutes and can be supplied with a variety of specialty tips for working in tightly packaged electronics cabinets is available from M.M. Newman Corporation of Marblehead, Massachusetts.

The Antex Model C/3U Miniature Soldering iron heats up to 665°F in only 45 seconds and is highly efficient because the heating element is located under the tip. Featuring a wide selection of slide-on tip styles, this professional-grade soldering iron is designed to fit into tight spaces.

Measuring only 6 3/4" long, the Antex Model C/3U Miniature Soldering Iron has a plastic handle with ridges to provide a good "finger feel" and a 3-wire grounded plug. Over 35 long-life iron plated copper slide-on tips are offered including shapes such as chisels, cones, spades and pyramids.

The Antex Model C/3U Miniature Soldering Iron is priced at \$24.45 (list) and tips are \$4.50 each (typical).

For more information contact: M.M. Newman Corporation, 24 Tioga Way, P.O. Box 615, Marblehead, MA 01945. Telephone: 800/777-6309 or 781/631-7100. Fax: 781/631-8887. E-mail: mmn@mmnewman.com. Web page: www.mmnewman.com.



As a service to our readers, *Worldradio* presents a feature listing of those VE exams, times and locations which are sent to us. Please remember that our deadline for publication is three months in advance. For example, if your VE group is scheduling an exam for December, please have the information to us by mid-September. *Worldradio*, 2120 28th St., Sacramento, CA 95818. Please mark the envelope "VE Exams." List the location (City), any information examinees should have (advance

registration, etc.) and the name and telephone number of a person to contact for further information. Examinees should bring their original license (along with a photo copy), two forms of identification (at least one should be a photo), and required fee.

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w/i=walk-in only
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Date	City	Contact	Notes	State	City	Contact	Notes
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Arizona							
6/07/01	Tucson	David, K7IOU 520/749-2884	p/r pref				
Arkansas							
6/09/01	Harrison	David, K5DEL 870/741-8604	p/r pref				
California							
6/09/01	Carisbad	Rusty, AA6OM 760/747-5872	p/r pref.				
	Hotline	Info Hotline: 916/492-6115	w/i				
6/28/01	Colton	Harold, AB6RN 909/825-7136	p/r pref.				
6/30/01	Escondido	Harry, WA6YOO 760/743-4212	p/r only				
6/11/01	Fremont	Dennis, K6DF 408/255-9000	w/i				
6/16/01	Grass Valley	John Plamer, KK6XJ 530-273-0524	p/r pref.				
6/30/01	LaVerne	909/923-1090 - w6ekz@arll.net	p/r pref				
6/04/01	Lancaster	Adrienne, WA6YEO 805/948-1865	p/r pref.				
6/16/01	Long Beach	Don, 562/420-9480	p/r pref.				
6/16/01	Redwood City	Al, WB6IMX 408/255-9000	w/i				
6/09/01	San Pedro	Elvin, N6DYZ 310/325-2965	p/r pref.				
Hotline	Santa Rosa	Hotline - Recording, 707/579-9608	w/i ok				
Hotline	Sebastopol	Recording, 707/579-9608					
6/16/01	Stockton	Mark, W6DKI 209/465-7496	w/i				
6/09/01	Sunnyvale	John or Gordon 408/255-9000	w/i				
6/09/01	Ventura	George, KN6LA 805/388-2488	p/r				
Colorado							
call	All Colorado	Exam recording 303/360-7293					
Connecticut							
6/19/01	Middletown	Paul, K1PL 860/635-1742	p/r pref.				
6/27/01	Newington	Larry, AB7GY 280/983-2163	w/i pref				
6/09/01	Newington	Dan, K3UFG 860/206-3379	w/i				
Florida							
6/14/01	Ft. Myers	Leonard, KC4GOA 941/694-2505	w/i				
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6/02/01	Ellijay	Sam, K4SWU 706/276-4877	w/i pref				
Idaho							
6/09/01	Boise	Rich Dees, W7BOI 208/888-1343	w/i pref.				
6/27/01	Grangeville	Larry, AB7GY 208/983-2163	w/i pref.				
6/05/01	Lewiston	KB7LTY 509/758-8374					
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6/15/01	Elmhurst	Gerald, W9EG 630/628-1336	p/r				
6/11/01	Libertyville	John, W9EM 847/223-3357	p/r pref				
6/16/01	Morton	Bob, AA9MY 309/263-8620	w/i				
6/09/01	Oak Forest	David, NF9N 708/226-1570	p/r pref				
Maryland							
6/16/01	Laurel	John, WB3GXW 301/572-5124	p/r pref				
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6/12/01	Bethpage	Bob, W2ILP 516/499-2214	w/i				
6/03/01	Yonkers	Emily, AC2V 914/237-5589	w/i				
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tba	Brevard	Harrison, KO4RV 704/877-4757 or 704/883-9096					
Ohio							
6/02/01	Cincinnati	Herb, WA8PBW 513/891-7556	w/i pref				
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6/16/01	Albany	WB9H2T 541/967-4167	p/r pref				
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6/09/01	Dallas	Robert, W7LOU, 503/623-1141	p/r				
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6/09,16/01	Webster	David Fanelli, kb5pgy@clarc.org	w/i pref.				
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6/09/01	Alexandria	John, WZ4A 703/971-3905	w/i				
6/14/01	Chesapeake	Pat, AF4FR 421-9598	p/r				
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6/09/01	Stafford	Curt, N3GQ@arll.net	p/r pref				
West Virginia							
6/09/01	Huntington	Garry Ritchie 304/733-1300	w/i				

Lower vanity fees?

The FCC is proposing to lower the fee to obtain or renew an Amateur Radio vanity call sign from \$14 to \$12. The new fee, if approved, likely would go into effect sometime in September.

According to the *ARRL Letter*, the proposed lower fee was contained in an Notice of Proposed Rulemaking for the Assessment and Collection of Regulatory Fees for Fiscal Year 2001. The FCC estimates that 8,000 applicants will request vanity Amateur Radio call signs in the current fiscal year. — *ARRL, Newslines*

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ADVERTISERS' INDEX

- | | |
|--|---|
| 59(9) DX Report, The — 30 | Lakeview — 23, 47 |
| Am-Com — 49 | LDG Electronics — 32 |
| Antenna World — 13 | Lehner, Leo/Battery Booster — 2 |
| Antique Radio Classified — 22 | Levy Latham Global — 17 |
| Antron Antenna Company — 12 | MFJ Enterprises, Inc. — 14, 15 |
| ARRL Southwest Division Convention — 57 | Morse Express — 51 |
| BetterRF Co., The — 44 | Mr. NiCd's Batteries America — 39 |
| Bilal Co. — 22 | National RF/Radio Engineers — 37 |
| BullDog Iambic Key/
AmateurRadioProducts.com — 11 | NiCd Lady, The — 18 |
| Burghardt Amateur Radio Center — 20 | Norm's Rotor Service — 4 |
| Caps Unlimited — 61 | Northern Ohio Amateur Radio Depot — 61 |
| Circuit Specialists — 34 | Nott LTD — 19 |
| Command Technologies, Inc. — 28 | Old Old Timers Club, The — 61 |
| Communication Products Ltd. — 48 | Omega Electronics — 29 |
| Computer International — 44 | P.C. Electronics — 10 |
| COMTEK — 34 | Paddlette Company — 26 |
| Courage Handi-Ham System — 20 | Palomar Engineers — 16, 22 |
| Cubex Company, Inc. — 4 | PAR Electronics — 6, 12 |
| Cutting Edge Enterprises — 4, 6, 12, 29 | Patcomm Corporation — 41 |
| DC Ace, Inc. — 7 | PROLOG/Datamatrix — 33 |
| Dragonwyck Design, Inc. — 51 | QCWA — 28 |
| DWM Communications — 38 | QRC Technologies, Inc. — 34 |
| Electric Radio — 4 | QRV Imprints — 7 |
| Embedded Research — 61 | QSLs by W4MPY — 11 |
| Engineering Systems, Inc — 54 | R.F. Connection, The — 23 |
| EQF Software — 30 | Rotor Doctor — 6 |
| EZ Hang — 62 | Smithdom Products LLC — 4 |
| FMS Services — 11 | Success-Easy/Alternative Arts — 11 |
| G.G.T.E. — 51 | T.G.M. Communications — 40 |
| GAM Electronics, Inc. — 19 | TEM Antennas — 24 |
| H. Stewart Designs — 4, 61 | TX RX Systems, Inc. — 2 |
| Ham Com, Inc. — 21 | Unified Microsystems — 61 |
| Ham Radio Insurance Assoc., Inc. — 11 | Universal Electronics — 52 |
| Ham Radio Outlet — 35 | Universal Radio, Inc. — 13 |
| HamStuff by W7NN — 11 | VGE/Van Gorden Engineering — 7 |
| High Sierra Antennas — 39 | VIS Study Guides — 8 |
| IMRA — 38 | Visit Your Local Radio Store — 50 |
| Inkjet Southwest — 18 | W2IHY Technologies — 31 |
| International Components Corp. — 20 | W9INN Antennas — 33, 61 |
| J Poles — 2 | Webster Communications, Inc. — 11 |
| Jade Products — 21 | West Mountain Radio — 45 |
| K-Y Filter Company — 46 | Wilderness Radio — 53 |
| Kanga US — 52 | Wireman, Inc., The — 4 |
| Kangaroo Tabor Software — 56 | Worldradio Books — 27, 55, 56, 58, 60, 65, 66 |
| KO6YD Designs/Confluent Designs — 16 | XMatch Antenna Tuners — 56 |
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AO-40 transponder operation possible this summer

AMSAT-NA President Robin Haighton, VE3FRH, raised the possibility that AO-40 could inaugurate transponder operation this summer, if tests and orbital maneuvers between now and then go as planned.

"We are learning how to fly this thing," Haighton said. "But I still think we're going to end up with a darned good satellite."

The most likely initial transponder configurations, Haighton said, would be Mode L/S, 1.2 GHz up and 2.4 GHz down, Mode U/S, 435 MHz up and 2.4 GHz down, and possibly Mode V/S, 145 MHz up and 2.4 GHz down.

Recent data suggest the mid-December incident that silenced AO-40 for two weeks and rendered some systems unusable also might have blown a hole on the 400-newton motor side of the spacecraft. "Speculation is there could be damage, and sunlight is getting

right in," Haighton said. He noted that ground controllers have detected a distinct rise in temperature when sunlight strikes that side of the satellite. The speculated opening was not causing any major problems, he said, but it could explain why efforts to adjust AO-40's attitude via magnetorquing have been unpredictable.

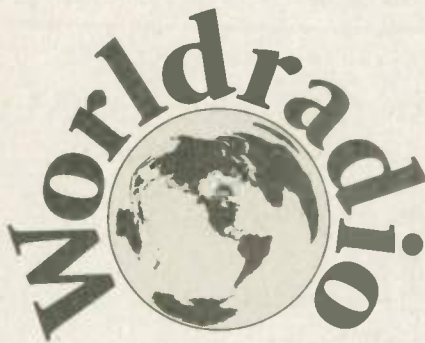
As the AO-40 recovery effort continues, Haighton said, ground controllers plan to raise the height of the perigee in the very near future. That process, using the onboard arc-jet motor, could take up to several weeks. The AO-40 team hopes the maneuver will minimize or eliminate possible effects on the satellite's orbit caused by atmospheric expansion at the peak of the solar cycle.

AO-40 currently is approximately 320 km, almost 200 miles, above Earth at perigee, its closest point, and some 51,000 km, some 31,600 miles, at apogee. Plans call for raising the

orbit at perigee to around 520 km, or some 320 miles. The maneuver would "hardly affect" the satellite's apogee, Haighton said. The arc-jet would be operated without electrically igniting it, using the pressure of the ammonia fuel alone.

Once the orbit has been adjusted, ground controllers would orient the spacecraft's attitude and check out the various onboard transmitter and receiver systems to see what works and what does not. "We're still pretty confident that the 2-meter and 70 cm transmitters are not there," Haighton said, "but we're equally confident that the receivers for those bands still are."

The satellite has been transmitting telemetry on the 2.4 GHz (S-2) beacon since the initial problem began last December, and signals reportedly have continued to improve — although the beacon has been out from time to time as needed to conserve power during eclipse periods. — *ARRL Letter*



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