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WORLDRADIO

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Texas lawmaker exempts Hams in amended tower proposal

As a result of intervention from the ARRL, Texas House of Representatives member Robert Cook has agreed to amend a proposed bill, HB 1148, aimed at regulating antenna construction, height, lighting and location, to include a new section that excludes Amateur Radio. The new section, 240.082.5

EXCLUSIONS, is now worded to say: "Nothing herein shall be construed to regulate, nor shall it regulate antennas, antenna support structures, devices or facilities, installed, maintained and used exclusively for Amateur Radio communications by Amateur Radio operators licensed by the Federal Communications Commission." ARRL assisted Rep Cook in wording the specific exemption. In a separate action, another proposal, Texas House Bill 1492, would require all towers taller than 50 feet to be painted and marked in accordance with aviation safety regulations. ARRL President Jim Haynie, W5JBP, has suggested that Texas amateurs contact the bill's sponsor, State Rep Rick Hardcastle, rick.hardcastle@house.state.tx.us, and voice objections to the bill in its present form. — *ARRL Letter*

Ham radio earthquake response winds down in India

Raj Kumar, VU2ZAP, in Bangalore, reports that Amateur Radio's role in the disaster response is nearly over. "Ham radio's part, in my opinion, is done," he said. He said some members of the Bangalore Amateur Radio Club, which had posted several members to the Gujarat quake zone, already had returned to Bangalore. The 26 January earthquake killed more than 50,000 people, injured many others and left upwards of 1 million homeless. In the immediate aftermath of the earthquake, Amateur Radio provided the only reliable communication with the outside world. Telecommunications systems have been at least partially restored to the stricken region. Salvation Army Team Emergency Network Coordinator Pat McPherson, WW9E, says his organization will provide care for up to 100 children from the Bhuj area orphaned or disabled by the quake. — *ARRL Letter*

Ho-hum reaction to ARRL CW shift

The ARRL's decision to no longer oppose the elimination of Morse code as an International Amateur Radio licensing requirement has not caused much excitement among the rank and file in the U.S. Amateur Radio community — at least not among Hams who actually operate their stations.

Judging by on-the-air comments monitored by *Newsline*, those U.S. amateurs who discuss the matter seem to have expected the Leagues Board of Directors to accept as inevitable the abolition of the international licensing rule that calls for Morse testing. Nation after nation has made known decisions to vote in favor of dropping international radio regulation S 25 at the next World Radiocommunications conference slated for 2003. — *Newsline*

Oscillating preamps generate interference complaints

The FCC reports it's gotten word of a rash of interference problems created by oscillating preamplifiers built into Winegard TV antennas used primarily on RVs, campers and motor homes. The oscillations generally appear in the 400-500 MHz range, and sometimes elsewhere, and have caused interference problems to public safety and Amateur Radio operation at distances of several miles away. The FCC's Gary Hendrickson says Winegard has acknowledged the problem and estimates that there may be as many as 40,000 defective units in the field, which it has agreed to replace at no charge. Owners, RV dealers or repair shops that might have new, but defective, units in stock should contact the factory at Burlington, Iowa, at 319/754-0600. Winegard also has proposed a proactive program in which service technicians will visit the larger campgrounds, rallies and dealers around the country, actively look for defective/radiating units in operation or on the dealer's shelves, and replace them at no charge to the customer, regardless of the age of the unit. — *FCC, ARRL Letter*

AO-40 update

According to AMSAT Germany, the bird is still in its seasonal limitations which will end by April. AMSAT D-L says that if the now underway de-spinning routine is successful, the planned recovery efforts of AO-40 could begin fairly soon. Testing of this software routine is now underway. Meanwhile the S-band middle beacon is operating nominally and can be heard on 2401.323 Mhz. — *AMSAT-NA, Newsline*

Panama commemorative operation

The "Radio Club de Panama" has obtained a special permit from the Panama Government Radio Office which gives any amateur radio operator in Panama during the month of March 2001 use the special prefix 3E500. This special prefix is to commemorate the 500th year anniversary of the Discovery of the Isthmus of Panama. A special QSL will be issued to confirm all QSOs during March. The QSL Manager is HP1RCP. Cards go to him in care of the Radio Club de Panama, P.O.Box 10745, Panama 4, PANAMA. — *Radio Club de Panama, Newsline*

WORLDRADIO

Year 30, Issue 10 • April 2001

On the cover: Bill Eitel, W6UF, operating from his mountain cabin station at Twin Lakes, near Bridgeport, California in 1956. Bill, along with Jack McCullough, founded Eimac, manufacturers of power vacuum tubes. Bill and Jack invented the power tubes that use the titanium anode which offer excepticnal overload protection. — Photo contributed by Jim Jolly, W6RWI

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

Editor's Log

The bus with the new recruits has stopped in front of the barracks housing the Lifetime Subscriber Corps, and the following have stepped off the bus and have been indoctrinated into the Lifetime Subscriber Corps:

- **Charles E. Zalenski, KA2MKQ Johnson City, NY**
- **Richard Current, AE4IX Virginia Beach, VA**
- **Allen Johnson, WBØOEU Des Moines, IA**
- **Jeffrey P. De Francesco, KB9IGG Westchester, IL**
- **Donald F. Elderbrook, KAØBOM Columbia, MO**
- **Michael Gipe, K1MG Saratoga, CA**
- **David B. Patrick, W7DAV Clinton, WA 98236**

Last month, we featured a key on the cover and the opportunity for our readers to bid on the key. Why is this key special? Because it comes from none other than Kurt N. Sterba, himself! We put out a call for bids, with the winner to submit a check made out to HandiHams.

As I write this, the bids are starting to arrive. And making a warm fuzzy moment for the staff here are:

Avery M. Finn, KØHLA
Norman D. Stockwell, N6NS

Each of these gentleman sent a check made out to HandiHams and said they don't care if they receive the key — just send this to HandiHams as a donation. Now that's CLASS!

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The "quest" for DX QSL cards update — (insert drum roll) I have received two more! The two I received since the last issue are from VR2BG (direct), and 3E1DX via manager NØJT. That makes a total return rate of seven out of 20 requests, or 35% return rate. Now remember, these QSL requests were sent out 5 December 2000.

Will I eventually reach the coveted 100% return rate? Not likely. I will be completely surprised if I get 50-60%. Keep in mind that I don't consider cards returned to me via the bureau as legitimate returns. I supplied the SASE and the traditional compensation for a direct return — not via the bureau.

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A reminder for all of our readers — we field several phone calls a day answering questions and sorting through problems for some of you. One thing to keep in mind, before you place that call. If you call the number on the subscription page, 877/472-8643, you will be talking to one of the fine people at our subscription services company — on the other side of town! They can answer any question you have about subscriptions, but if you have a question about anything other than a subscription question, they have to put you on hold and call us on another line and try to relay between the caller and our office. If you have a question about anything other than a subscription or subscription problem, please call us direct at 916/457-3655. Or you can fax a question to: 916/457-7339.

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We get numerous e-mail and phone requests on what it takes to submit a story and photos for possible use in ***Worldradio***. Here's a brief summary.

We use Microsoft Word for Windows 5.0 on these Macs. So your story needs to be submitted in a suitable format for us to use it. If you don't have a compatible word processing program, save your material as "plain text" and we can probably open it with no problem.

If you prefer to send your submissions by mail, we would like it typewritten. I prefer typewritten text because we can scan it — it saves a lot of time.

Photographs can be sent electronically. Just scan them at 200 dpi, as big as you can handle (6 inches by 7 inches, for example) and save as a .jpg file. Send the file as an attachment to an e-mail, and we can work with it. If you don't have a scanner, send the photographs to us, but please note that you want them returned. If you have questions, we can answer them. Just send an e-mail to: n6wr@ns.net, or call us at 916/457-3655.

And that's all there is to it! We'd like to see your stuff, so send it in! Mail submissions to: ***Worldradio***, 2120 28th St. Sacramento, CA 95818. — *WF6O*

The Ultimate Backpacker!

Ham Radio in the Great Outdoors: It's the Best with Yaesu's FT-817!

Actual Size

Bring Ham Radio along on your next hiking, camping, or business trip with Yaesu's amazing new FT-817 Multimode HF/ VHF/ UHF Portable Transceiver!

●ULTRA COMPACT: Measuring just 5.3"x 1.5"x 6.5" WHD (135 x 38 x 165 mm) and weighing about 2 1/2 pounds (1.17 kg, including the supplied antenna and alkaline cells), the FT-817 is small and light enough to take along wherever you're going.

●WIDE FREQUENCY COVERAGE: 160-10 meters on HF, plus the 50, 144, and 430 MHz Amateur bands. Plus FM Broadcast, AM Aircraft, and Public Safety receiver coverage.

●MULTIMODE DESIGN: Ready for action on SSB, CW, AM, FM, FM-Wide (Rx), 1200/9600 bps Packet, and Digital, including dedicated USB and LSB PSK-31 configurations.

●5 WATTS POWER OUTPUT: Using a new-technology all-band MOS FET power amplifier, the FT-817 provides 5 Watts of power output when using a 13.8 Volt DC source. When using Alkaline batteries or the optional FNB-72 Ni-Cd Battery Pack, power is automatically set to 2.5 Watts, via Menu, this can be changed to 0.5 Watt, 1 Watt, or up to 5 Watts.

●WIDE CHOICE OF POWER SOURCES: The FT-817 is equipped with an alkaline "AA" cell battery case, and a 13.8 volt DC cable is also supplied. Available as an option is the FNB-72 Ni-Cd Battery Pack (9.6 V, 1000 mAh), which can be recharged using a 13.8 Volt power supply while the radio is being operated.

●TWO ANTENNA PORTS: A "BNC" connector is provided on the front panel, and a type "M" connector on the rear panel, with Menu selection of which connector will be assigned for operation on HF, 50 MHz, 144 MHz, and 430 MHz.

●OPTIONAL COLLINS® MECHANICAL FILTERS: An optional filter slot is provided, accommodating either the YF-122S (2.3 kHz) 10-pole SSB filter or the YF-122C(500 Hz) 7-pole CW filter. You get "base station" performance even from a mountain top.

●INCREDIBLE MEMORY RESOURCES: You get a total of 208 memories, including 200 "regular" memories which may be separated into ten groups of up to 20 channels each. And you can append an Alpha-Numeric "Tag" to each memory to aid in channel identification.

●A CW OPERATOR'S DREAM MACHINE: You get a built-in Electronic Keyer with adjustable weighting, adjustable CW Pitch, CW Normal/Reverse frequency tuning, and you can even use the microphone's UP and DOWN keys to send CW via the Keyer.

●BUILT-IN CTCSS AND DCS: The built-in CTCSS and DCS Encoder/Decoder systems provide you with the versatility you need for repeater access or selective calling.

●DUAL-COLOR LIQUID CRYSTAL DISPLAY: Select from Blue or Amber display illumination, which can also be switched off to conserve battery life. And while you're away, the Spectrum Scope will provide you with a visual record of activity ±5 channels from your current operating frequency.

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Life on the beach

Bruce Sawyer, N6NT/ZF2NT

It was a normal day today here on Little Cayman (pop. 100, at the very end of the road.) I woke up about 3 a.m. and decided to go see who was on the air. But first I had to go fish my paddle out of the pot on the stove, where I had left it to soak overnight in a pot fall of Limeaway. I had tried all day yesterday, on and off, to get the contacts to work reliably. Nothing I tried would work, so I began to employ desperate measures. When I tried the paddle out after the soak, though, it sounded promising. At least, it sure looked a whole lot nicer after soaking all the greenish grunge off it.

So then I went to 20M and began to swing the beam around to Europe from where I had left it pointing at ZL the last time I used it — but the beam wouldn't move. The indicator just remained stuck on SW. Again! I've been down this road before. The rotator was a brand new Tailtwister when I put it up a little over a year ago. When I returned this fall, it looked like it had aged 20 years. I had to take the rotator down anyway, since I was adding some tower sections last month. I had Mark Perrin, N7MQ and Larry Wassman, NV7J, down here from Oregon for CQWW-SSB, and after the contest they volunteered to be my ground crew while I built up the tower a bit more. I sent the rotator down on a rope and Mark grabbed it. Mark already knew the plan was to put a pigtail on it, so he headed off to the workbench as soon as the rotator reached the ground. A couple of hours later I came down and got a chance to take a better look at it. Mark had tried to loosen the screws on the terminal strip, but instead of loosening they had just broken off in the sockets. That terminal strip looked like it had been at the bottom of the ocean since the *Titanic* went down. "Gonna take some major surgery on that one," he said. His flight home left the next day.

"At least the radio is working."

A week later, I finally went to perform that "major surgery." I had a spare backup rotator — an old Ham IV that W6OAT let me have a few years ago. So I cannibalized the backup rotator for its terminal strip, and after about six hours of tedious rotator repair I was ready to run the rotator back up the tower. It worked great — for about 5 days. Then it quit turning, and checks of resistances from the ground showed I had a couple of leads that weren't making good contact. So up the tower I went, and an hour later came down with the rotator, again. This time I soldered the pigtail leads on the inside of the terminal strip, keeping the 8 screw lugs just to use for test harnesses. Back up went the rotator. It worked very well — for about a week. Then it quit turning. Checking ground resistances, I could tell one of the limit switches was not making good contact. Up I went, and an hour later came down with the rotator. I carefully cleaned both limit switches, and back up the tower it went. That was about a week ago. Ground resistance checks now show that pin #6 is open. Hmmm... that's the left limit switch on a Tailtwister. Oh well, it looks like there's some more rotator repair in my future.

Now if you've ever opened up a rotator, you've probably been greeted with numerous ball bearings bouncing out and around on the floor as soon as you pull the case off. Once you get it all apart, you wonder how you will ever going get the thing back together again. I was like that once, back when I lived in California full time. That's the land of low humidity, moderate temperatures, no salt in the air — a place where rust and corrosion are almost unknown. But since coming to Little Cayman, I've been through this drill on rotators so many times that now I think I can strip one and then reassemble it while blindfolded.

It's not so bad, really. At least the radio is working. I still can't get the paddle to work reliably, but I can hear fine. Well, I did have to repair the headphones a few times — like about a dozen. The last pass was when the rats invaded my house and a rat chewed through the headphone cord. And, if I can ever get the paddle working, at least the amp is working. That did take the better part of last week. I found there were three successive connectors in the low voltage section which had been arcin badly after corrosion had built up on the connector contacts. The net result of it all was that I wasn't getting any filament voltage. But, as I said, I just got the amp fixed day before yesterday. That was the day the paddle quit working on me. And after messing with the paddle for a full day, — the rotator quit working. And it's STILL not working.

As I said, it was a normal day here on Little Cayman. With luck, though, I will have a day sometime next January when everything will be working at once. Then maybe I'll have a QSO! And you know what everybody in the U.S. always says, once they get through telling me how rotten the weather is back home? "Go have a pina colada for me." Right! Just as soon as I get the rotator fixed. Oh yes, and those EHS guys I put up just one year ago are already rusting out. Time to replace them with Phillystran, I suppose.

So, Friends, the moral of this little story is the following. ANYBODY can go to a little Caribbean island and set up for a contest, field day style. That's no big deal. But just try to keep a station working down here. Impossible!

How I got started

Lee Ann Crawford, KD5IHZ

After many years of hearing squeaks and squawks from my hisband's radio that seemed to drive me out of my mind while I raised the kids, I thought I could never enjoy such a hobby. Often My Husband, Jim, K5YC, would call, "CQ, CQ, is anyone there?" Just who is this guy called "CQ", anyway? I never did find out who he was. What does "QRZ, digital multimeters, or grid current" mean? Strange language.

Soon, all the kids were grown and I was sitting in my room all alone. Boy, the house seemed awfully quiet. I decided I would go and see what my husband was doing. I went down the hall to the radio room and found him in conversation with a nice man in Tennessee. They talked for nearly an hour on antennas, weather, what they had built in the old days of tube radios, and may other subjects. Suddenly, my husband gave the microphone to me and told me to say "hello" to his new friend. I was very "mic" shy, but with his coaxing, I finally said a few words. I still can't remember the other amateur's callsign. Being sort of uneasy about this radio stuff, I eased back into my own room.

While I walked to and fro past the radio room while doing housework in the next month, I began to pick up and understand some of what he was talking about. I beginning to enjoy Ham radio.

One day, while my husband sat at the radio desk, I walked by with a load of clothes to fold and found myself telling him I thought I would get my Ham license. He has been a Ham for a long time and has tried to get me to study for my license before without luck. He just shrugged it off, thinking I would never do it.

A couple of months later, I told him I had been studying for my Technician Class license and I was on my way to take the test. "Would you like to come along?" I asked. You should have seen the look on his face! It glowed!

I took the test, but failed by a few questions. This discouraged me a lot. My husband and all the old timers at the testing site told me not to worry. "Let your husband drill and explain the questions to you," they said.

We did just that. In no time I was finally understanding some of this strange language and terminology. I went back to the VE exam site and by golly, I passed the test — I only missed one question! My husband and I went out to eat and celebrate my accomplishment. Our faces were beaming so bright with happiness and amazement that we could have illuminated the place without all of the lights in the restaurant.

We kept watching the new callsigns come on the Internet with great anticipation of seeing my callsign. Jim had been busy at work for several days and decided to check, one more time, for my new callsign. He turned on the computer, signed on, and there was my name — and my callsign, KD5IHZ.

Now, after three months of talking on 6 Meters with my husband, Jim, I have begin to understand and enjoy this fascinating hobby. I have worked many states and made a lot of new friends.

So, ladies, maybe all of this funny noise is not so bad after all. My husband and I now work as a team on 6 Meters. One of the few husband-and-wife teams on the "magic band."

You can enjoy this hobby, too. Don't get discouraged and give up if you don't pass the test the first time, or if you think it's too hard. With help, like I had, you can become one of these stange persons — a radio amateur!

David Splitt, KE3VV

CC&R prememption petition redux

It was almost exactly five years ago that the ARRL filed its petition for rule making with the FCC in a case designated RM-8763. The main thrust of the petition sought modifications and clarifications of federal policies that the League thought would resolve post PRB-1 problems caused by ongoing friction between local government regulators and Hams wanting to erect antennas on their property. As I discussed more fully in the February 2000 Rules & Regs column, the FCC declined to modify its preemption policy with respect to local government regulations restricting antennas set forth in the PRB-1 order.

As part of its 1996 omnibus request for modifying the 1985 PRB-1 Order, the ARRL also asked the FCC to apply PRB-1 to "restrictive covenants in private contractual agreements," such as those found in condominium agreements and homeowner association rules. (NOTE: in keeping with our enlightened policy supporting the ARRL, the word 'omnibus' is being used to describe the 1996 ARRL Petition for Rule Making on PRB-1 instead of the unflattering verbiage used to trash the petition in last year's harsh and unenlightened column. Isn't "omnibus" so much nicer than "wish list," "laundry list," or "kitchen sink," which were the words I used last year to describe the ARRL petition? Super! Glad you like the new millennium ARRL-boosting tone. For those of you who preferred the ARRL-bashing curmudgeon of yore... read on!)

Anyway, faithful readers and observers of the PRB-1 saga know that the FCC said "No" to all of the petition, including the request to expand PRB-1 to CC&Rs and reminded the ARRL that the 1985 FCC policy announced in PRB-1 excluded private contracts from preemption under PRB-1 and said, "specific rule provisions bringing private restrictive covenants within the ambit of PRB-1 were not necessary or appropriate." You will also recall that (in February 2000) the ARRL filed a Petition for Reconsideration of the denial of its 1996 petition and took the FCC to task for ignoring its righteous and well-grounded reasons for tacking anti-CC&R language onto the PRB-1 preemption. In the May 2000 Rules & Regs column, I examined the ARRL's request in detail. Needless to say, I predicted that the FCC would find nothing in the ARRL's weak and snippy petition to change its bureaucratic mind in the ARRL petition for reconsideration.

PRB-1: A Done Deed

For anyone who read the May Rules & Regs column (or the ARRL petition for that matter), it came as no surprise that, on 13 November 2000, Kathleen O'Brien Ham (the Deputy Chief, Wireless Telecommunications Bureau or "WTB") issued an Order on Reconsideration denying the ARRL's Petition for Reconsideration of the WTB Order on Docket No. RM-8763. In her denial, she actually refrained from simply bashing the ARRL's contention that Telecom-

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 19 February 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	KCØJSY	++	ABØQA
1	KB1GHM	++	AA1ZZ
2	KC2HNG	++	AB2LN
3	KB3GBX	++	AA3WN
4	KG4LTW	++	AG4GB
5	KD5NDZ	++	AD5CK
6	KG6FEC	++	AD6VI
7	KD7LVX	++	AC7LL
8	KC8QXF	++	AB8JV
9	KB9YWV	++	AB9BZ
N. Marianas	KHØMW	++	++
Guam	KH2VG	++	++
Hawaii	NH7DT	++	++
American Samoa	WH8ABF	KH8DO	AH8U
Alaska	KL1BS	KLØZZ	++
Virgin Island	WP2AIM	NP2LM	++
Puerto Rico	WP3JC	++	WP3T

++ All calls in this group have been assigned

munications Act of 1996 provided the Commission with "new" authority to address CC&Rs. Instead of simply telling the ARRL it was wrong because the FCC has always had federal preemption power (even though it did not use it much for policy reasons), the WTB simply reiterated the FCC's position that it had refrained from applying it to CC&R's. Here is what the FCC said about its jurisdiction in response to the ARRL:

"Regardless of the extent of our discretion with respect to CC&Rs generally, we are not persuaded by ARRL's arguments that it is appropriate at this time to consider exercising such discretion with respect to amateur station antenna preemption. Moreover, we do not believe that ARRL has demonstrated that there has been a significant change in the underlying rationale of the PRB-1 decision, or that the facts and circumstances in support thereof, that would necessitate revisiting the issue. In the absence of such showing, we believe that the PRB-1 ruling correctly reflects the Commission's preemption policy in the Amateur Radio context."

Folks, it is rare that the government speaks to anyone with that kind of clarity. It has told the ARRL and the amateur community to make a real case for preemption of CC&Rs that is based on facts and evidence rather than clever (?) arguments from lawyers. It wants something that it can sink its teeth into and take to the bank when the non-Ham residents of restricted communities raise a stink and a holler about having to reasonably accommodate leafless trees of aluminum and clotheslines crafted from coax. Despite the ARRL's straw man assertions, the FCC has never said that it can't preempt CC&Rs. At the same time it has repeatedly told the ARRL that it is not buying into even limited preemption for Ham antennas without substantial practical reasons and facts to back up the legal arguments.

Last summer, after the May Rules & Regs column critiquing the ARRL petition was published, I had a long telephone conversation with ARRL President Jim Haynie, W5JBP, about preemption. He indicated that the ARRL was going to press forward on the preemption issue and was going to do a better job of gathering facts and

information from amateurs about their CC&R experiences so that the FCC could be persuaded that preemption was justified. In fact, the ARRL has been seeking input from amateurs to bolster its arguments. Based on what he said and what he has done, it seemed like the ARRL was headed down the right path toward being able to really convince the FCC that, as a matter of policy, preemption of CC&Rs for Amateur Radio antennas was an idea whose time had come.

I guess that is why I am so disappointed in this latest effort to sway the FCC by filling the docket with legal sophistry and WTB-bashing. I think that most Hams who end up in condos and gated ticky-tacky communities infested with CC&Rs do so because they have little choice. In the case of older amateurs, most of the retirement communities that offer some security (from manufactured homes to more elaborate and pricey manses) are covered by CC&Rs. Finding a retirement venue that has desirable amenities without restrictions on antennas (or even clotheslines!) is a real trick. This is the real argument for extending the "reasonable accommodation" rule to the private sector. Maybe someday the ARRL will use it to persuade the FCC to change its policy. Of course, first the ARRL is going to have to give up its current failed strategy and admit that a policy change is needed.

When the FCC denied the ARRL Petition for Reconsideration in November (as expected), the ARRL's response was a real surprise. On 15 December 2000, the ARRL filed another request for reconsideration, this time asking the full Commission to overrule the Deputy Chief's November 2000 Order. Not surprising was the tone and approach taken in the ARRL's latest effort. With almost Clinton-esque memory twisting, the ARRL tells the Commissioners that, "In the most urgent and important portion of the [1996] Petition, ARRL sought a clarification that the Commission has no less interest in the effective performance of an Amateur Radio station, and in the promotion of Amateur communications, merely because the licensee's residential property is regulated by private land use restrictions rather than by State or local government restrictions." Well, maybe this looks good to the ARRL members who read it (and who didn't get around to reading the 1996 petition), but the CC&R part of the 1996 effort was almost an afterthought. Perhaps this is a minor point, and is certainly not worth getting too bent out of shape about. But this tiny deviation from reality is just a precursor to the creative lawyering that follows.

Real Estate Law 101

After enunciating the phony premise that CC&Rs were the core of the 1996 petition, the ARRL gathers steam, abandoning both reality and logic, and claims that its 1996 petition did not request the adoption of new policy regarding land use regulation of amateur antennas at all, nor any expansion of the three-part, 'no preclusion', 'reasonable accommodation', 'least practicable restriction" test for land use restrictions. Rather, in the context of private land use regulations, it sought only to apply that Commission balanced policy equally to all types of land use regulations. This was necessary because the 1985 Declaratory Ruling, twice, on what must of necessity have been jurisdictional grounds, disclaimed any application of the policy to private land use regulations.

The ARRL petition goes on, this time mimicking one of the key flaws in its earlier petition by setting up the "no jurisdiction" straw man to batter: "The PRB-1 order twice stated that such private land use regulations were in nature of private contractual agreements and therefore did not 'concern' the Commission. This was apparently true whether or not such restrictions precluded amateur communications entirely; failed to reasonably accommodate amateur communications; or constituted restrictions more severe than necessary to protect the (typically aesthetic) concerns of the homeowner's association, architectural control committee, or condominium board. The theory behind the disclaimers set forth in the PRB-1 declaratory ruling was, apparently, that covenants were purely a matter of private contractual agreement and therefore not subject to the Commission's jurisdiction to preempt. That, ARRL urges, is no longer a valid premise." This type of argument may delight the judges in high school debating contests, but the likelihood of making much of an impression on the FCC (which has heard it previous ARRL briefs) is not great. The FCC has never actually used lack of jurisdiction or authority as a reason for denying the ARRL pleas for preemption. The ARRL is just making this up so it can argue against it.

Straw men and buffalo chips

Taking a deep breath... the ARRL does make a few really good points in its petition. For example, the Commissioners are told that "private land use regulations which preclude or fail to reasonably accommodate amateur communications, or which do not

constitute the minimum practicable regulation to accomplish the private land use authority's legitimate goal, are just as inconsistent with the strong federal interest in Amateur Radio communications as are zoning regulations of those same facilities which do not meet the same test." Yes! Yes! But then the tone changes and the ARRL takes another whack at the WTB and Deputy Chief O'Brien Ham (yes, that is indeed her real name). The ARRL says, "It would be illogical to assert that the Commission has any less interest in unreasonable covenant regulation of amateur antennas than it has with respect to unreasonable zoning regulation of those same antennas." Not less interest... just a different policy. Then, after skewering the WTB logic, the ARRL parries with another dose of its own non sequitur argument: — it could only be the case that the Commission's reliance on the private contractual character of CC&Rs in disclaiming application of the PRB-1 policy was due solely to the issue of jurisdiction. That is, that the Commission, in 1985, believed that it did not have the authority to preempt private land use regulations, which it termed "contractual agreements". How to put this delicately... if this logic were abundant on the American plains, early settlers would have used it for stoking fires.

The ARRL is telling the Commissioners that the only reason the WTB bureaucrats are resisting CC&R preemption is that they remain too legally and mentally challenged to admit that the FCC has jurisdiction to allow Amateur Radio antennas in restricted communities despite covenants to the contrary. As faithful readers of Rules & Regs already know, the FCC has always had jurisdiction and authority to preempt CC&Rs, but has told the ARRL twice that its preemption policy is 'limited' and that the ARRL has not 'persuaded' that FCC to change it.

The ARRL takes on the Deputy Chief again, telling the Commissioners, the "WTB misconstrued the nature of the PRB-1 policy, and misunderstood what the obligation of a homeowner's association (HOA) or architectural control committee (ACC) would be if the PRB-1 policy were to be applied evenly."

Know when to fold 'em

True believers will likely view the ARRL request for review by the FCC Commissioners as a bold attempt to sweep aside the bureaucratic impediments to CC&R preemption. The true cynics and ARRL bashers are sure to see it as another rather risky example of the ARRL leadership PR-ing its own membership into believing that they are aggressively pursuing the preemption agenda. If the political fix is in, why bother with spending the members' dues on filing lengthy legal papers? Just file a brief request to open the rulemaking process based on a description of facts that will be demonstrated. That would have been a much simpler (and risk-free) way to explain the reasons to open up the process rather than waste a lot of effort antagonizing the WTB staff with a lot of tired, twice-failed, and irritating legal mish-mosh.

As a last attempt to be fair and enlightened, I must give the ARRL some credit for stubbornness. I am aware that ARRL President Haynie has promised the membership action on preemption of CC&Rs, and I applaud his commitment. But the continuation of the old strategy as evidenced in this latest ARRL petition is flawed and the legal arguments lack both logic and persuasiveness. Like the fans at Spring Training, we can appreciate the need to just stand up and keep swinging. But, unless the ARRL gets lucky and bounces this one past the mound, it's time to head back to the dugout and figure out something other than just flailing away and hitting nothing but foul balls and hot air.

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The future of Amateur Radio?

James Wades, WB8SIW

The recent decision by the ARRL Board of Directors to withdraw its support of the International radiotelegraphy requirement once again offers evidence that far too many in the Amateur Radio community lack any valid insight into the potential problems limiting the future growth of this valuable radio service.

If we are to make appropriate choices as to those steps necessary to institute growth and continue the evolution of Amateur Radio, we must understand the "real" reasons for a lack of growth in the Amateur Service. The time has come to challenge many of the assumptions made by both the leadership, as well as the "rank and file" of the Amateur Radio Service. Some of this may be considered harsh, but the time has come for some "plain speaking."

Assumption 1: "CW is keeping young people out of the hobby. If we don't eliminate it, the phone won't ring, numbers will dwindle, and our portion of the RF spectrum will be re-allocated."

Repeat a lie often enough, and soon it will be accepted as "gospel" truth. There is no doubt that CW keeps some young people (and adults) out of the Amateur Service. Of course, so do technical exams and radio theory.

Despite the fact that this worn-out assumption is repeated again, and again, particularly by those that have never learned the code, no one has yet proven this assumption! Where are the non-biased studies and statistical analysis performed by an independent organization? Where are the demographics? Where is the empirical evidence? There isn't any!

During the past year, I have had the opportunity to witness a large number of Amateur Radio demonstrations, which involved phone, digital, and radiotelegraph stations. I have watched as literally hundreds of children have walked past a SSB or digital station paying little, if any, attention to it. Yet, the very same youths have walked right up to a CW operator, fascinated by the "dots and dashes."

The simple fact is, talking into a microphone, a hand-held radio, or typing on a computer keyboard is no longer a unique experience for today's generation of youth. As more children grow up with digital technology now as commonplace in the home as the telephone, digital communications may do even less to attract young people.

Our own experience shows that eliminating the code will not have a significant impact on growth!

For many years now, we have had a no-code license offering full access to the VHF, UHF, and microwave Amateur Radio bands. Yet, few young people are entering the hobby. Those that do are rarely interested in technical innovation or public service. The demographics of Technician (no-code) licensees track closely with those of the remainder of the Amateur Radio community. The simple fact is that the no-code license has failed to attract great numbers of radio amateurs. It has also failed to spur technical innovation.

Here are some facts:

The VHF, UHF, and microwave spectrum offers perhaps the greatest opportunity for technical innovation. This portion of the spectrum is ideal for high-speed data networks, Internet connectivity, and a variety of high-tech communications media. Yet, few are utilizing this valuable resource in an innovative manner.

Many Amateur Radio Emergency Service organizations utilize the VHF and UHF spectrum extensively for public service communications. Most radio amateurs do not participate in any of these programs. Only a fraction of those licensed are registered with an ARRL Emergency Coordinator. Even fewer participate on a regular basis!

Even basic packet radio communications attracts few proponents. Such useful modes as APRS attract even fewer, despite extensive promotion and coverage in the Amateur Radio press.

We are attracting few young people, technical innovators, or public service oriented individuals, despite an extremely useful "no-code" license. You can't blame this one on CW!

Assumption 2: "Greater numbers will preserve our frequencies. We need as many radio amateurs as we can to insure access to valuable RF spectrum." Bunl!

Our public service record has, and will, continue to justify our access to RF spectrum. There have always been demands for amateur spectrum. In the 1910s, the U.S. Navy and commercial point-to-point services wanted our amateur spectrum; and they almost got it! In the 1920s and '30s, broadcasters wanted it for a wide variety of applications, from remote pick-up services to international broadcasting. From the post war years, through the present, numerous proposals have been put forth to grab the VHF and UHF amateur allocations.

Yes, we do need to bring youth into the hobby. However, it is equally important that we bring in quality individuals who wish to invest their time and effort in technical innovation and public service. Simply attracting more individuals interested in a high-class alternative to Family Radio Service won't pay the rent; and rightfully so! If we provide no service to the community, then why should we tie up radio spectrum with the potential to create billions of dollars in economic growth and job production?

Assumption 3: "CW is obsolete and of little value"

This is a comment usually heard from those with little or no proficiency. Nonetheless, the value of radiotelegraphy should be obvious to those with an open mind.

At the risk of repeating the obvious, here are just a few of the advantages of CW:

Radiotelegraphy overcomes language barriers, allowing those with different languages to communicate basic information.

Radiotelegraphy is spectrum efficient. The narrow bandwidth of a CW signal also allows one to communicate more reliably for a given amount of power.

CW equipment is simple and inexpensive, making it ideal for radio amateurs in developing countries.

Only a few advantages have been listed in the interest of space. However, let's not forget that CW is the only mode of communications that has the ability to attract and hold the interest of many simply because it is an art form. Perhaps if we explained the value of the mode and presented it as an opportunity rather than a barrier, more people would want to take advantage of it.

The reality:

Apparently, the FCC and the ARRL are too myopic to identify the real factors leading to a potential decline in the Amateur Radio Service. Therefore, to be of assistance, let's point out a few of the features on the distant horizon:

Amateur Radio is invisible.

Ask the average person on the street to explain what Amateur Radio is, based on their personal insights or knowledge of the hobby (an interesting question for a pollster; perhaps one hired by the League). You will be shocked at the answers you receive. The average person is unable to provide a realistic summary or description of the Amateur Radio Service. Why is this so? WE ARE INVISIBLE.

Other than a short mention in an occasional news story covering a major disaster, we are rarely discussed in mass media or popular culture. When we are, the coverage is brief and superficial. Has the amateur community taken any effective steps to correct this problem? No! They are apparently busy blaming the license structure and radiotelegraphy. Admittedly, such organizations as the ARRL haven't the funds or the contacts to correct this problem. However, no erstwhile attempt has been made by any national Amateur Radio organization to raise the funds necessary to create an effective media and outreach campaign.

Most Amateur Radio clubs and organizations have no organized approach to community outreach. There are no guidelines or programs designed to encourage involvement in educational programs. There are no effective national programs designed to promote cooperation with such programs as the scouting movement. Few if any Amateur Radio clubs make a speaker available to community groups to promote Amateur Radio. Few Amateur Radio clubs even know how to put together a press release!

By the way, as a corollary to the above exercise, ask the same person to explain what the Boy Scouts do, or the Girl Scouts, or the National Rifle Association, or Trout Unlimited, or Ducks Unlimited, or ??

A bunch of grumpy old men?

I once asked a young lady, recently licensed and 18 years of age, whether the CW requirement was a barrier or discouragement on her path to becoming licensed. Her response was straightforward. "It wasn't the code that almost frightened me off, it was all the grumpy old men," she said.

Take a look in the mirror folks. Next time you attend a swap or an Amateur Radio event, observe the dress, behavior, and social skills of the vast majority of your brethren. Many of us can't even get along with each other — we're too busy complaining about the code requirement.

Next time you see a radio amateur portrayed in the media, take note. Ask yourself these questions:

Is he dressed well?

Is his shack neat and well organized?

Is he using a unique mode of communications, or is he simply talking on "2 Meters."

How old is he?

My guess is that he (note the pronoun) will typically be:

About 50 to 70 years old.

He will be talking on a hand-held or a simple VHF-FM radio

He won't be particular about appearance or hygiene.

His "shack" will be located in the corner of a dark, musty, basement.

The truth is simple, but seldom heard. 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.

We lack diversity:

For example, women make up roughly half of the population, yet few are radio amateurs. Many of the reasons for this are far beyond our control, being based in long held cultural norms. Nonetheless, it seems likely that we are missing a large number of individuals who would have a genuine interest in Amateur Radio. Of course, no one is suggesting that we What are the odds of a young woman feeling at home at your Amateur Radio club? The sad fact is that we have little, if any, contact with whole segments of the American population.

We don't cooperate — with anyone!

First, we don't cooperate with each other. Ten radio clubs may exist in a metropolitan area, each with a limited membership. Half of these clubs may offer an introductory licensing class. These same clubs will do a poor job of instruction and follow-through. Why? Because they have a limited pool of talent.

How would one describe a typical Amateur Radio class?

It will likely have poor learning facilities. An elementary school classroom or high school cafeteria is a typical location for a licensing class. The acoustics are likely to be poor, the seats uncomfortable, and the lighting terrible.

The audio-visual aids will likely be poor. A home projector screen, a chalkboard, or a small TV set for the occasional video are the best one can hope for.

The instructors are uninspiring. Let's face it; a radio club consisting of 50 members is not likely to have access to a variety of inspiring, effective instructors.

Personal prejudices will abound, particularly with respect to learning CW.

How often will an Amateur Radio "bigot" tell a classroom of potential radio amateurs that CW is of no value except as a hazing ritual to "keep the CBers out?"

Wouldn't it be great if a number of clubs pooled their resources to present the best possible licensing class. For example:

Instructors would be chosen based on talent and knowledge, not politics.

Members would find the funds necessary to rent a proper instructional facility, preferably one suitable for a professional gathering.

A national Amateur Radio organization would develop a set of standards and guidelines for licensing classes. They might also develop effective teaching aids, such as "Power-Point" presentations, instructional videos, and similar tools. A programmed learning course would be available via the Internet. Students in rural areas wouldn't even have to leave home to learn how to become a radio amateur!

A National Amateur Radio organization would provide a web page advertising the locations, dates, and times of licensing classes and VEC session throughout the U.S. Best of all, radio clubs would utilize it.

Of course, we not only don't choose to cooperate with each other, we don't cooperate with anyone. A major metropolitan ARES group recently told me they don't care about NTS activities. They also have "no use" for the American Red Cross. If I recall, they also have no use for a wide variety of agencies because their "boss" (the Emergency Management Director) has no use for anyone but his particular law enforcement agency.

Is this situation unique? Absolutely not. It has been witnessed repeatedly. Such behavior seems more evident today, at a time when we can least afford it.

Ask your fellow radio club members the following questions:

Do we have a relationship with a local scouting organization?

Do we have a public information officer?

When was the last time we issued an effective press release (other than field day)?

When was the last time we invited the ARRL Emergency Coordinator to speak to our club?

When was the last time we offered a service to the community?

Have we created a partnership with a number of other radio clubs to promote Amateur Radio in some fashion (e.g. cable access show, licensing classes, etc).

Many clubs can't answer any of these questions in the affirmative. Perhaps they're too busy griping about the "horrible code requirement."

Our problems are not unique to Amateur Radio.

It has been said "for every complex social problem there is a simple solution that's wrong." Many "anti-code" proponents have honorable intentions, yet, one can't help but suspect they are misguided in their efforts to insure the survival of Amateur Radio. Many factors are keeping people of all ages out of the hobby. A few such factors include:

Lack of time: The average U.S. citizen is now working the greatest number of hours in history. A total of 55 to 70 hours a week are common in many industries. Downsizing in the business sector has placed significant stress on the time available to the very type of individual likely to have an interest in Amateur Radio.

Changing Cultural Norms: Fifty years ago, when the World War II generation was starting its families, the man's role was limited to "bread winning." Once work was over, few responsibilities confronted the male head of household with the exception of yard care and vehicle maintenance. The woman stayed at home, raised the children, and kept the house. The typical man (and most Hams are male) had a reasonable amount of time available in the evening for hobbies. Not any more! Today, women work and therefore they expect the man to contribute his share of time to child rearing, house-cleaning, and similar activities. Guess what! No time for Amateur Radio (but that's OK. Let's blame it on CW anyway).

Urban Sprawl: Men and women no longer live in small, close-knit communities and neighborhoods. School children used to walk to a neighborhood school for extracurricular activities, today they must be driven by the parents, many of whom act as "chauffer" five nights a week. Individuals used to drive a short distance to work and to shop, today they must often drive 30 or more miles. All of this takes time; time that used to be spent on hobbies like Amateur Radio.

Competing Media: Several generations have grown-up with nearly continuous exposure to entertainment media that engenders passive participation. Most individuals under the age of 50 have been "trained" to seek passive forms of entertainment. The idea of developing a skill or passing a theory test in order to engage in a hobby activity is nearly beyond their comprehension.

A service organization recently retained a respected polling firm to ask young men, between the ages of 30 and 40, how many hours they had available per month for a club or service organization. The answer: three hours per month. Undoubtedly, this too must be the fault of CW!

Some conclusions:

For too long now, the ignorant have been shouting "get rid of CW." They justify their argument by suggesting that CW is harming Amateur Radio. There is great danger in this patently false assumption. If we continue to debate the CW requirement, we run the risk of failing to seek genuine solutions for those problems facing Amateur Radio. We also run the risk of eliminating one of the very aspects of Amateur Radio that may make it unique and appealing for a future group of licensees.

It seems that our leadership lacks the

ability to articulate a common vision and a set of goals necessary to move Amateur Radio into the future. Perhaps the task is too daunting. Unfortunately, the alternative to a proper course of action is the demise of Amateur Radio.

I challenge the ARRL (and others) to make the difficult choices necessary to preserve Amateur Radio. This does not mean giving-in to mass hysteria and the self-serving mindset of those that do not like CW or have never developed enough proficiency with the mode of communications to see its usefulness. This does not mean attempting to judge the proper course of action for the amateur service based on those choices made by the Department of Defense or the International Maritime Community, Kenwood Corporation, or a variety of publishing company owners. We are a unique group of individuals with unique requirements.

The time has come for us to demand true leadership from our ARRL, Affiliate Radio Clubs, and ourselves. It is my opinion that we should demand the following:

- Research that will identify the target demographic likely to have an interest in Amateur Radio.
- A viable and effective outreach and media campaign
- Standards and guidelines for properly conducted Licensing classes
- The development of useful teaching tools
- The development of a program designed to integrate Amateur Radio into scouting organizations, schools, and similar youth-centered organizations.
- Cooperative partnerships between independent radio clubs in the area of licensing, community outreach, and public service.

We should also demand an unbiased look at the value of CW. This mode still has much to offer.

Finally, let's elect ARRL leadership that is willing to tell the truth, even if it isn't what people want to hear.

Am I going to stay with the League?

The lack of vision and reasoned debate on the part of the ARRL has had me quite concerned. At times, I have even considered withdrawing my membership. After considerable thought, I arrived at one question: Where else is there to go? There are no other viable national Amateur Radio organizations. Futhermore, the ARRL still has much to offer. The ongoing support of ARES, RACES, Skywarn, and NTS are enough to justify continued membership. However, the time has come to draw a line in the sand. We should place our ARRL leadership on notice as follows:

Let's demand that there will be absolutely no more evisceration of the CW requirements. We should demand that the ARRL fight "tooth and nail" to maintain the 5 wpm telegraphy requirement.

Let's further demand that the phone bands not be expanded at the expense of the CW/digital spectrum. CW and digital operators need a place to operate where they are not bothered by 3 to 5 kHz wide SSB signals. If the League is sincere about technical innovation and modernization, they should recognize that CW and digital modes are quite compatible. Decreasing the size of the CW sub-bands will hinder the development of new, narrow-band, digital technologies. The existing Novice Bands should be allocated to narrow band modes. The voluntary band-plan should assign them primarily to digital communications.

Let's demand that the truth be told about CW. CW nets handle more traffic, more reliably than phone nets. CW overcomes language barriers, making it an ideal mode for DX communications. CW equipment is simple, fun, and easy to build. Such equipment makes CW operation an ideal first step into experimentation with radio communications technology.

The time has come to illuminate the dark corners that breed illogical, narrow-minded and shortsighted opinions. Let's point out patently false and overly simplistic solutions presented to solve complex and difficult problems.

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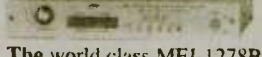

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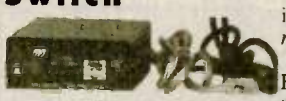

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Alinco* Strd HT	MFJ-5022	MFJ-5022YV	MFJ-5022X	MFJ-5022
Icom*/Yaesu* RadioShack HTs	MFJ-5024	MFJ-5024YV	MFJ-5024X	MFJ-5024B
Kenwood* HTs	MFJ-5026	MFJ-5026YV	MFJ-5026X	MFJ-5026
Yaesu 8-pin	MFJ-5080	MFJ-5080YV MFJ-5080YH	MFJ-5080X	MFJ-5080Z
Icom* 8-pin	MFJ-5084	MFJ-5084YV MFJ-5084YH	MFJ-5084X	MFJ-5084Z
Kenwood/Alinco 8-pin	MFJ-5086	MFJ-5086YV MFJ-5086YH	MFJ-5086X	MFJ-5086Z
Yaesu 8-pin modular	MFJ-5080M	MFJ-5080MYV	MFJ-5080MX	MFJ-5080MZ
Icom* 8-pin modular	MFJ-5084M	MFJ-5084MYV	MFJ-5084MX	MFJ-5084MZ
Kenwood 8-pin modular	MFJ-5086M	MFJ-5086MYV	MFJ-5086MX	MFJ-5086MZ
Radio Shack 8-pin modular	MFJ-5088M	MFJ-5088MYV	MFJ-5088MX	MFJ-5088MZ

1. does not include IC-W2A
2. does not include 2500
3. does not include 25A, 255A
4. does not include IC-100H, IC-2700H
5. YV for KAM VHF port, YH for KAM HF port,
6. YV for KPC9612 1200 baud port
7. YH models for KPC9612
8. Excludes IC-100, 120, 200, 500

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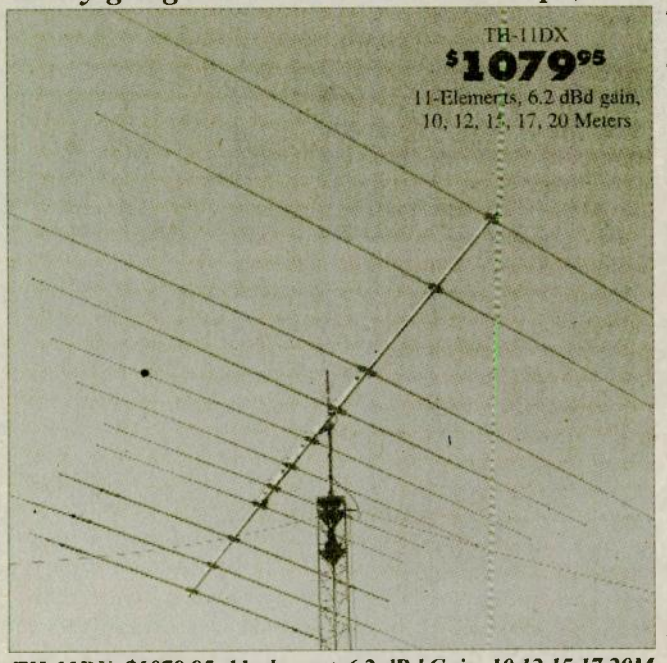

TH-11DX, $1079.95. 11-element, 6.2 dBd Gain, 10,12,15,17,20M

The choice of top DXers.

With 11-elements, 6.2 dBd gain and 5-bands, the super rugged TH-11DX is *the "Big Daddy" of all HF beams!*

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Dual driven for broadband operation without compromising gain. SWR less than 2:1 on *all* bands.

Uniquely combining monoband and trapped parasitic elements give you an excellent 27 dB F/B.

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The broadband *five element* TH5-MK2 gives you an outstanding 6.1 dBd average gain.

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BetaMATCH™ provides DC ground to eliminate static. Includes BN-86 balun. Easily assembled.

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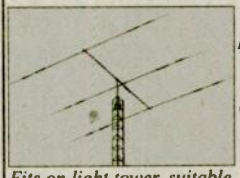

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Model No.	No. of elements	avg Gain dBd	avg F/B dB	MaxPwr watts PEP	Bands Covered	Wind sq.ft. area	Wind (mph) Survival	Boom (feet)	Longest Elem. (ft)	Turning radius(ft)	Weight (lbs.)	Mast dia O.D.(in.)	Recom. Rotator	Retail Price
TH-11DX	11	6.2	22	4000	10,12,15,17,20	12.5	100	24	37	22	88	1.9-2.5	T2X	$1079.95
TH-7DX	**7**	**6.57**	**21**	**1500**	**10, 15, 20**	**9.4**	**100**	**24**	**31**	**20**	**75**	**1.5-2.5**	**HAM-IV**	**$819.95**
TH-5MK2	5	6.1	20	1500	10, 15, 20	7.4	100	19	31.5	18.42	57	1.5-2.5	HAM-IV	$699.95
TH-3MK4	**3**	**5.8**	**25**	**1500**	**10, 15, 20**	**4.6**	**95**	**14**	**27.42**	**15.33**	**35**	**1.9-2.5**	**CD-45II**	**$439.95**
TH-3JRS	3	5.8	25	600	10, 15, 20	3.35	80	12	27.25	14.75	21	1.25-2.0	CD-45II	$329.95
TH-2MK3	**2**	**3.4**	**15-20**	**1500**	**10, 15, 20**	**3.25**	**80**	**6**	**27.3**	**14.25**	**20**	**1.9-2.5**	**CD-45II**	**$339.95**
EXP-14	4	5.9	25	1500	10,15,20	7.5	100	14	31.5	17.25	45	1.9-2.5	HAM IV	$549.95

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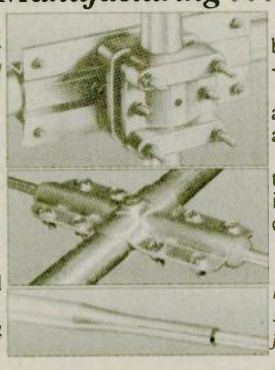

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Tooled *Boom-to-Element Clamp*

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50MHz DXpedition to Nauru

Jack Haden, C21JH

O/P: Jack D. Haden

Who needs C21?

I set about to see how much demand there was for Nauru on 50 MHz early in 2000 for a proposed September operation in conjunction with a side trip to Tarawa, Western Kiribati, where I have been active on all bands over the years as T3ØJH. The response was virtually zero; many of the so called "experts" on 6 Meters said I wouldn't work anything as it was the wrong time of the year. So Nauru was dropped in favor of a two week operation as T3ØJH. I had to go to Kiribati on business so Amateur Radio was just part of the trip.

Situation changes

During October 2000 I placed further notices of intent on various VHF orientated web sites suggesting a December operation as C21JH. The response this time was very encouraging, especially from the JA's and a few VK/ZL's. The "experts" suggested a late November to early December operation but due to my work obligations in Sydney, the best I was able to do was a December 10th start-up date which was better than nothing.

Pat Rose, W5OZI, a keen 50 MHz operator in Texas, also expressed support as he felt there maybe a chance of a Nauru to West Coast USA path. Pat generously provided additional support with a financial donation from SMIRK to compliment funding by the Japanese VHF DX groups. Kazu Ogasawara, JA1RJU, did a splendid job rallying the JA's together to support the operation. Financial help was required for travel in December — being a peak period in the airline world discounted tickets are not available.

What to take?

I elected to use an Australian 50 MHz five-element beam antenna especially made for me by D&G Antennas in Sydney. The beam was simple, with all pieces clearly marked for quick assembly; it was aligned and tested for 50.110 MHz at the factory to ensure it worked properly.

There were two antennas and coax already stored on Nauru, a trap dipole for 80-10M and a half wave vertical for 28/29 MHz. So the only remaining item to take was the IC-736 transceiver (a HF plus six-meter rig) with 100 watts output all the way.

Logistics for C21JH

For me, this was the first time computers and the Internet would be implemented to play a role in this DX operation. To eliminate duplicate contacts on 50 MHz, and thus give everyone a chance to have a bite. We planned to place the daily log on the net each day.

Bulletins went out to the JA's via Kazu, JA1RJU, to the Americans via Pat, W5OZI, and in VK/ZL via Adam, VK4CP, and Steve, VK3OT, (Pacific Rim Notice Board) that duplicate contacts would not be entered in the log. Also alerting them to the fact that I would be running a 50 MHz checklist while on Nauru to enforce the 'no duplicate contact' policy. Thus by posting

the log every 24 hours those who in fact made it would be discouraged from making further 'insurance' contacts etc.

Keeping it simple

At the last minute, to keep luggage weight down, I elected not to run a beacon or small keyer on 6 Meters. The nearest 50 MHz beacon to Nauru (RI-39) was just over the equator in the Marshall Islands (RJ-39).

Looking at a map of Micronesia, and studying basic propagation characteristics I came to the conclusion that the Marshall Islands 6M beacon on Kwajalein Atoll (RJ-39) would serve as a good indicator of a Nauruan path. As the Kwajalein beacon is at grid RJ-39 and Nauru is just a touch south of the equator at grid RI-39 a fatal mistake was made by thinking that anyone hearing the V73SIX beacon would have a path to Nauru at the same time.

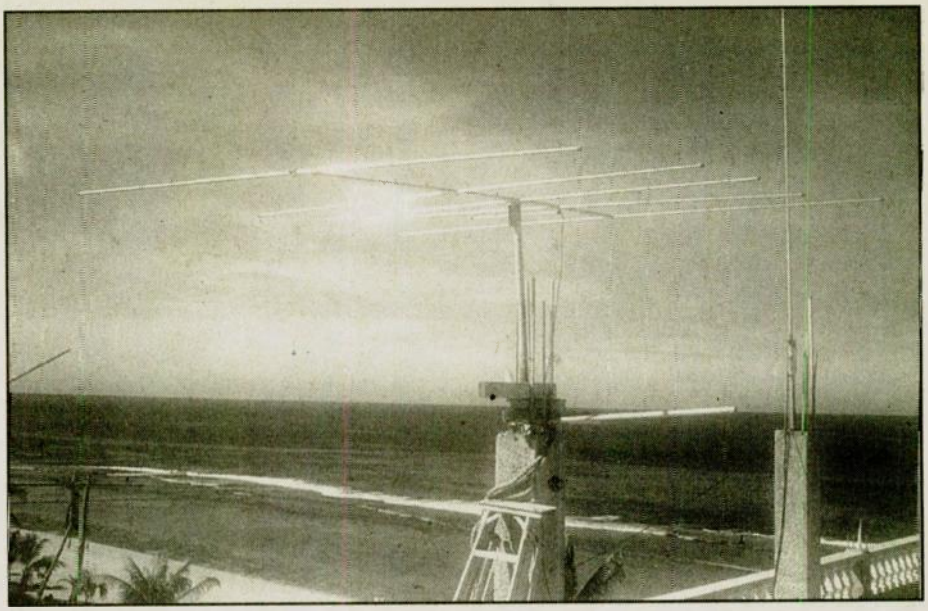
Adam, VK4CP, plus a number of other VK and JA 6M DXers made observation tests of path indicators when I was audible and when the V73SIX beacon was heard. Adam found he had no reception of V73SIX when I was audible for over an hour in Brisbane (QG-62) on 50 MHz. Likewise some JA's observed that even though they were hearing V73SIX quite well my signal was not heard in Japan. Vice versa, many JA's working me, in particular, from northern JA (JA8/JA7) had no reception of V73SIX at the same time I was audible.

Interestingly enough, I heard V73SIX everyday while on Nauru; it wasn't strong but readable, so there was a ground wave path during daylight hours across the ocean. Sometimes V73SIX would be stronger on side scatter during the late afternoons or early evenings.

50 MHz opens

Luckily on Nauru there is very little noise on 50 MHz, except for the odd occasion the neighboring hardware shop started a welder or electric saw! The welder caused excessive interference when in use, and that was quite a bit during working hours. The WWVH solar indices for my first day were 147 09 02; not bad, the figures could have been worse, I guess.

At 2132Z on 10 December Kerry, ZL2TPY, (RF-70) was first in the C21JH log with a 4x1 report. The band was unstable with VK4 TV on 46.171.7 MHz pinging out of the noise but VK2 TV on 46.240 MHz was a good plus 10 to 20dB on the meter. Tracking the rising MUF by following the video crud



Nice weather, nice hotel and a custom built beam with a path over the ocean — what more could a Ham want?

splatter as it slowly moved up the band, I knew there would be a VK opening when it entered 49MHz. The low powered VK TV on 46.261 MHz was also a good five on the meter, a very promising sign. While waiting for the VK opening I dashed up to the roof and swung the beam to the USA, but again nothing was heard, despite the fact the ZL's were working into the USA at the time.

Gerry, VK2APG, (QF-55) made the log at 2136Z with John, VK2BHO, (QF-55) not long after. The path suddenly extended into western VK3 with

Nauru was a battleground in WWII. This gun emplacement is still in place on the shoreline.

pings audible from beacon VK3SIX (QF-02), and at 2139Z VK1BUC (QF-44) was worked followed by Norman, VK3DUT, (QF-32) then Bob, ZL3TY, (RE-57). The ZL's were still working the USA at this time. A California station requested me on 28.885 MHz to have another look for USA propagation, but there was nothing.

Numerous VK1, 2 and 3 stations were quickly filling up the log pages — then a surprise call from VK7GUN (QE-38) in northern Tasmania gave me my first VK7 contact. Some further ZL contacts were recorded among the southern VK before the band moved across to VK5 with VK5RO (PF-95) being worked at 2245Z. VK4 TV near Brisbane was building up to a good nine and at 2253Z Peter, VK4APG, (QG-62) was the first cab off the VK4 rank.

The ZL path was quite unstable with rapid fade being the enemy; the ZL's were there one minute, gone the next. For my first day of operation this was a tremendous opening; a brief burst of JA occurred at 2310Z with JH6NKZ (PM-53) in Oita 5x5 through the back of the beam. The last VK station worked for the day was John, VK4FNQ, (QG-39) in far north Queensland at 0055Z.

Work it while you can

The 11th of December was very quiet. The solar indices from WWVH were 144 07 01, down from the previous day. There wasn't the anticipated repeat of the previous day's performance. Was it beginner's luck? Using the quiet period wisely, I went out to find a computer hooked to the Internet — plenty were but the ISP was down! Lucky Adam, VK4CP, and I anticipated this; we had arranged a morning 10-meter band back up sked should the net be out of action.

Daily at 2200Z Adam turned up to have the 50 MHz log relayed to him for posting on his site and in turn relayed to Kazu, JA1RJU, in Japan for the JA's. This proved to be invaluable as duplicate contacts were virtually eliminated and thus gave many of the low-powered JA's a chance to work C21JH for a new country.

HF operations

I did very little HF operating, although I did run some pile-ups on 10, 15 and 20M when 6 Meters was dead and a few contacts were made on 29 MHz FM from time to time. A number of Americans were worked through the W1OJ 29.620 MHz repeater in Bolton, Montana plus a few others via repeaters in the 6th and 9th districts, too.

Disgusting behaviour

Operations were terminated on a 20M pile-up to the U.S. due to unethical operating tactics on two separate occasions. The conduct was disgusting, to say the least, with the pile-up careering out of control on a number of times. Confusion reigned and I sat back and just listened to them hurling four letter words at each other. Working split frequency relieved the problem slightly but skirmishes still broke out and the general operating ethics of many U.S. stations was offensive.

So the contact rate was very slow on 20M due to the fiasco. Radio etiquette and proper radio procedures were thrown out the window — it's clear many do not know how to behave on the band while working a DX operation. State rivalry was clear, with East Coast operators

abusing West Coast operators for calling out of turn etc. Perhaps this is a minority group giving the majority a bad name?

Then there were the 'self-appointed' resident kilowatt-plus policemen who thought they were doing me a favor when in fact they were making the situation worse. Then there were the fellows who couldn't be told and would not be told. I tried to make it easy for everyone by working through the call districts by number, but no, boys will be boys and rude, inconsiderate ones at that. Asking for "2's" I got "5's" and "6's" so after a while I just couldn't be bothered with it any longer. Alligators — all mouth and no ears!

20M dupes

What really annoyed me was the fact that many of these fellows were duplicates, same old callsigns every day with over-driven distorted signals to match, stuff the "little people" who really need C21 for a new one! The mandatory '5x9' brigades were there in full force, one Florida station gave me a '5x9' report but I had to repeat my callsign three times because "You are barely readable in Miami." Really? Then why not be honest to start with?

Norman Jockane, CZ1NJ, in his shack at Buada District, Nauru.

Interestingly enough, many of the duplicates worked on 20M during Dec 2000 also appeared in the 1999 and 1998 logs for C21JH 20M pile up contacts — same old crew blowing the usual hot air. They work me every trip to Nauru, they never send a QSL card anyway so I guess they don't need C21.

Epilogue

Around 1,267 contacts were logged during my 11 days on air, 80M through 6M with some WARC activity too. Just over 530 individual (no dupes) contacts were made on 6 Meters. There were no equipment failures, everything worked very well, the food at the hotel was very basic (same menu for the past six years) but I didn't starve or become ill. The hotel staff did their best under very trying conditions.

Some rather nice color pictures and more details on the C21JH operation can be found on the Internet by visiting http://web.one.net.au/~vk4cp and once you are there, click on the 'C21JH' panel located in the left hand index column.

Ruben, C21RK, has a small Kenwood putting out 10 watts on 50 MHz, so I left him the five element D&G beam. Hopefully by the time you read this he should be up and running on 6 Meters. Special thanks must go to: Adam, VK4CP; Kazu JA1RJU; Ruben C21RK; Norman, C21NJ; Dumas, C21DD; John, VK2DEJ; D&G Antennas, SMIRK, the JA VHF DX Groups, the Od-N-Aiwo Hotel and Air Nauru. 73 de Jack, C21JH.

31 on 31 Award

Looking for the newest award you can earn in Amateur Radio? Have we got an award for you!

Worldradio is now offering the new "31 on 31 Award" to our readers. How do you earn this new, highly coveted and prestigious award? Work 31 countries on PSK31! It's easy!

Of course, there are rules.

1. The 31 countries must be soverign nations. No teeny little possessions of another country.

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 call sign, 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.

4. Enclose $3.10 and we'll send you a nice 8x11 unfolded certificate suitable for framing.

5. Send your funds and list to: ***Worldradio***, 2120 28th St. Sacramento, CA 95818. Attention: 31 on 31. (If you want to send in more than the $3.10, we'll have lunch on you!)

Need a list of the nations? Send your request along with an SASE with 55 cents postage, and we'll send the list — and a handy log sheet for you to keep track of your contacts.

Be the first on your block (or city) to hang one of our prestigious awards on your shack wall! Proudly display the certificate at your club meeting. Make the rest of your Amateur Radio buddies jealous as heck, and be sure to goad them into getting on the air with this new mode. You may proudly hold your head up high and chant, "I've got my 31 on 31 Award, and you don't — neener, neener, neener!"

Contact All Time Zones

In commemoration of ***Worldradio's*** 25th Anniversary in 1996, we first offered the "Contact All Time Zones" (CATZ) award.

• Rules

The start date for valid contacts is 01 July 1996 at 0000Z.

The world is divided into 24 time zones. Each time zone is 15 degrees wide. For the sake of this award, half-hourly zones and out-of-zone artificial time changes will be ignored.

This award is based on the true 15 degrees each, world map 24 time zones.

The applying station must have one (two-way) contact on Amateur Radio allocated frequencies with a station in each of the world's 24 time zones. Contact with one's own nation does not count.

The operator applying for the award must have made all 24 contacts from a location within the same country.

The award may be endorsed as the applicant wishes in regard to band and/or modes.

• Application

The applying radio operator must be in possession of 24 QSL cards, one from each of the time zones.

A list shall be made showing each contact's call sign, date, band, mode and the time zone starting with the prime meridian (0°) and moving eastward.

There is a fee of $5 to cover the cost and mailing of the 8 x 10 certificate (mailed unfolded).

It is not necessary to mail your QSL cards to ***Worldradio***. Send a statement signed by two other licensed radio amateurs (General Class or above) that they have inspected and verified the required QSL cards.

Address applications to CATZ Award, ***Worldradio***, 2120 28th St., Sacramento, CA 95818.

Recipients of the CATZ award will be announced in the ***Worldradio*** DX column.

Special Events

Discovery of Florida

Port St. Lucie ARA will operate special event station K4PSL to commerate the discovery of Florida on 2 April 1513 by Ponce De Leon. Daily operation from 1-14 April, 1700-2100Z. Suggested frequencies are: 14.050, 14.230, 21.230 and 28.350 MHz. Certificates are available from Dr. Maurice Sasson, 8598 Florence Drive, Port St. Lucie, FL 34952.

Doolittle raid

The Stu Rockafellow ARC will operate special event station, N8D, 21/22 April from the Yankee Air Force Museum in Belleville, Michigan, to commemorate the raid by a force of B-25 bombers, led by General Doolittle, on 17 April 1942. Operation will commence at 1400UTC on 21 April and end at 2000UTC on 22 April. Suggested frequencies are: 7.270, 14.270, 21.370 and 28.370 MHz. For a certificate send your QSL card and a 9 X 12 SASE to Chuck VanVleck, 9225 N. Canton Center Rd. Plymouth, MI, 48170-3967.

Submarine Reactivation

Special event station W9DK will be on the air from aboard the USS *Cobia* (AGSS-245) Submarine Memorial located in Manitowoc, WI., 28-29 April from 1400-2300UTC. This station is operating as part of the annual Submarine Memorial Radio Reactivation weekend. Several other memorial stations will also be participating. Suggested frequencies are: 3.843, 7.243, 14.243, 21.243, 28.343 MHz. For a QSL or certificate send an SASE to: Fred Neuenfeldt, W6BSF, 4932 S. 10th St., Manitowoc, WI. 54220-9121.

Silent Keys

Donald E. Tooley, WA7IJR

Donald E. Tooley, WA7IJB, of Las Vegas, NV died 18 november 2000. He was a veteran of the U.S. Army, and had been assigned to the Fairbanks, Alaska area during his military service. Don was an active member of the Salem and Lincoln County Amateur Radio Clubs, and was very proud of his recent upgrade to Extra Class.

Don was a member of the Ocean Lakes Elks Lodge in Lincoln City (Oregon) serving as Exalted Ruler in 1992-92 and being on the state membership.lapsation committee.

ARRL Foundation elects officers

The ARRL Foundation Inc held its annual meeting via teleconference on 23 January and elected a new slate of officers. The new officers are New England Division Director Tom Frenaye, K1KI, President; Dakota Division Director Jay Bellows, KØQB, Vice President; Roger Franke, K9AYK, Treasurer and ARRL Field and Educational Services Projects Supervisor Mary Lau, N1VH, Secretary. All officers are elected for one-year terms. ARRL Hudson Division Director

Frank Fallon, N2FF, was appointed by the ARRL Board of Directors as a new Foundation Board member; ARRL Southeastern Division Director Frank Butler, W4RH, and ARRL Honorary Vice President and former Central Division

Director Ed Metzger, W9PRN, were reappointed to the Foundation board. The term of office for directors is three years. — *ARRL Letter*

Station Appearance

Send **Worldradio** *a picture of your shack and the staff will choose a winner to receive a free one-year subscription to* **Worldradio!** *Stations will be judged by neatness (wires tucked away, etc.) and accessibility of equipment. Monetary value of equipment is not a consideration.*

Dave Tuttle, NC4DT

I've been licensed for 16 years. My primary interest has always been emergency communications. I've been involved in ARES, SKYWARN, Navy MARS, REACT and others. I currently serve as the Communication-Electronics Officer for the III Division of U.S. Service Command.

The more I worked field and disaster missions, the more elaborate the setup effort in the field became. Finally, in 1999, I decided to be able to take the whole shebang with me.

The 1964 Yellowstone is an oldie but a goodie, with the entire interior all in real, solid oak. I removed the front dinette table, and installed an 80 inch interior door as a console desktop. The overhead bunk is used for storage, and the underside supports all of the mobile rigs mounted overhead. The trailer has a full kitchen, bathroom and sleeping quarters. The refrigerator and cupboards stay fully stocked with a week's worth of non-perishables all the time.

The overhead equipment row includes an Echo 99'er CB used as a dedicated PA amp, Kenwood TR-7950 2-meter FM, RadioShack VHF 2-channel Land Mobile, Cobra 32XLR CB, Ray Jefferson VHF marine transceiver, Realistic Pro scanner, GE Master Executive II 100-watt mobile on 47.420 MHz (Red Cross).

The main HF station is a Kenwood TS-530 SP with all the accessories. Above the HF rig are a Console II SSB CB, a photocopier and fax machine. A small television monitors all the local media to keep the commander informed. A 12" TV is on the Dish Network system to give access to CNN, The Weather Channel, etc.

With the exception of the Satellite TV system, computer and fax that use commercial or generator 120V, everything operates on deep discharge marine batteries. I also carry a 4 KW generator. All radios have a mobile antenna permanently mounted on the trailer. I can also erect a Hustler 5BTV vertical antenna.

All of the logo's on the trailer were hand painted using some mighty small brushes and lots of time.

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Gain & Wave: 0 1/4 wave • Length: 3" Flexible rubber • Conn: Male SMA • Max Pwr: 5W

NEW SMA-503 • Dual-band 146/446MHz HT Antenna w/SMA Conn
Length: 8.75" • Conn: Male SMA • Max Pwr: 10W

* **NEW MH-510** • Tri-band 52/146/446MHz HT Antenna w/SMA Conn
Gain: 0/0/ 3.2dBi • Length: 20.75" • Conn: Male SMA • Max Pwr: 10W

SB-15 • Tri-band 52/146/446MHz w/fold-over
Gain & Wave: 52MHz 0dBi 1/4 wave • 146MHz 4.5 dBi 6/8 wave • 446MHz 7.2dBi 5/8 wave x 3 • Length: 58" • Conn: PL-259 • Max Pwr: 120W

NEW BLACK COLOR

SBB-7 SBB-7NMO • Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 4.5dBi 6/8 wave • 446MHz 7.2dBi 5/8 wave x 3 • Length: 58" • Conn: SBB-7 PL-259/SBB-7NMO NMO • Max Pwr: 70W

NEW BLACK COLOR

SBB-5 SBB-5NMO • Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 2.5dBi1/2 wave • 446MHz 5.5dBi 5/8 wave x 2 • Length: 39" • Conn: SBB-5 PL-259/SBB-5NMO NMO • Max Pwr: 120W

Z750 • Dual-band 146/446MHz w/fold-over • Includes COMET exclusive theft-resistant lock!
Gain & Wave: 146MHz 2.15dBi 1/2 wave • 446MHz 5.5dBi 5/8 wave x 2 • Length: 39" • Conn: Gold-plated PL-259 • Max Pwr: 200W

Z780 • Dual-band 146/446MHz w/fold-over • Includes COMET exclusive theft-resistant lock!
146MHz 6/8 wave 4.5dBi • 446MHz 5/8 wave x 3 7.2dBi • Length: 62" • Conn: Gold-plated PL-259 • Max Pwr: 150W

B-20 B-20NMO • Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 2.15dBi 1/2 wave • 446MHz 5.0dBi 5/8 wave x 2 • Length: 30" •
Conn: B-20 PL-259/B-20NMO NMO • Max Pwr: 50W

B-10 B-10NMO • Dual-band 146/446MHz cellular look-a-like •
Gain & Wave: 146MHz 0dBi 1/4 wave • 446MHz 2.15dBi 1/2 wave • Length: 12" •
Conn: B-10 PL-259/B-10NMO NMO • Max Pwr: 50W

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Gain & Wave: HF-6M 1/4 wave • 2M 3.4dBi 5/8 wave • 70cm 2.15dBi 1/2 wave • VSWR: HF 1.6:1 or less • 6M-70cm 1.5:1 or less • Length: 6'2" •
Max Pwr: HF 120W SSB • 6M 200W SSB/100W FM • 2M/70cm 100W FM • *L-14 Optional 20M coil • *L-18 Optional 17M coil

NEW MSG-1100C • Dual-band 146/446MHz w/spring whip and fold-over
Gain & Wave: 146MHz 2.15dBi1/2 wave • 446MHz 5.5dBi 5/8 wave x 2 • Length: 39" • Conn: PL-259 • Max Pwr: 120W

NEW MSG-1100C • Dual-band 146/446MHz w/spring whip and fold-over
Gain & Wave: 146MHz 3.5dBi1/2 wave • 446MHz 6.0dBi 5/8 wave x 2 • Length: 43" • Conn: PL-259 • Max Pwr: 150W

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Letters to the Editor

Don't call them LIDS...

As I read through the January issue, my attention was drawn to the subject letter. In fact, my jaw "dropped open a mile!"

This individual either was misinformed or is laboring under a delusion! The acronym LID has been around as long as there have been "Brass Pounders." To my knowledge the term refers to those who have poor "fists."

Mr. Ayers needs to know the terms he refers to long preceded the advent of CB radio. They have been a part of Ham radio, and are a part of the culture.

Maybe we should do away with "Q" signals, RST and the like and speak only as gentle(men) (women) of culture. We're moving so quickly through the spectrum of life, we don't have time to "stop and smell the roses!"

It takes all kinds of people to make our culture "tick." Let's be careful and look before we leap.

Charles Gorton, W7IPF
Everett, WA

Well, you finally hit my flash point with that little ditty titled "Don't call them LIDS" which appeared in the January 2001 issue of ***Worldradio***. Please give me a break [sk] — trash that stuff!

In response, I have to put my two cents in since I've been continuously licensed as K8IHQ for over 45 years and was examined by a real live FCC office (old days) for all grades including the "Extra" license. This whining and whimpering from the late comers is beyond my tolerance.

In response to Jim Ayers, AC5OT, in Lumberton, MS, I can only say that he would have been wise to just keep quiet.

I just about get sick after reading his letter to the editor and would like to straighten a few things out for AC5OT.

The FCC's dumbing down of the requirements have created this attitude and the new class of "CB" (Chicken Band) sourced amateur. Ham radio is not CB advanced class. You are supposed to be tested for proper voice procedure, some level of CW expertise, and some degree to technical knowledge.

The 10-4 CB operator is usually none of this. When a licensed amateur operates as a "LID" then he is a LID. Quit whining and get qualified folks who are trying to get you to GET QUALIFIED. No excuses, please!

Most folks do not care about being pestered about some dumb 10-10 number. This, again, is an extension of the CB band. When the propagation and sun spot cycle is favorable then 10 Meters is used. 10-10 is to talk to your neighbor down the street when 10 Meters and 11 Meters are at the low end of the cycle. No commercial endeavor would want allocation on 10 Meters since it does not lend itself to continuous reliable usage. Folks, they don't want the band!

The Technician Class with their perceived exclusive area of the 10-meter SSB band is NOT the exclusive territory of the ex-CB folks. All classes who have earned their advanced privileges are authorized to use these areas and do — again, quit whining. Us old folks who hold Extra Class licenses who were FCC office tested (Federal Buildings) do not have the responsibility of teaching folks proper voice procedures. This lack of tested knowledge is not a "Little Mistake."

I am real sorry, but most amateurs do not feel "kinder" to folks who are not qualified and show it.

What Senator Goldwater and the FCC have done to this hobby has just about eliminated the desire for folks to participate any more. Incentive licensing, the retesting of the old folks to earn back their privileges (no grandfathering) and then insult us with the "know nothing licensing" of CB folks is probably the beginning of the end for a once extremely desirable hobby. I am sorry folks, but I have heard enough of this stuff.

Carl Markle, K8IHQ
Chardon, OH

P.S. I also hold a commercial CW license, Certified Engineer, Retired military commissioned warrant officer, etc.

(Ed. Carl, you hit the nail on the head! All of us, myself included, who were not tested for our licenses at a Federal Building should just send them back to the FCC and give up the hobby, right? So let's see, that would be about one half of all the currently licensed Amateur Radio operators... hmm, wonder what would happen to the spectrum we have if that were to happen?

And you are also right about it not being your responsibility to not teach anyone wanting to become a Ham, or any new amateur asking for assistance to learn a new aspect of the hobby should just do it themselves and quit whining, right? All instructors of this fine hobby should immediately cease and desist, right? All amateurs should not give any assistance to anyone who wants to learn anything about Amateur Radio, right? Anyone demonstrating Amateur Radio to interested groups of youngsters and others should immediately stop, right? Everyone wanting to become a Ham should not ask anyone for anything — just do it themselves and leave the "old folks" alone, right? And then when they have self-taught themselves, they should go to the nearest Federal building and demand to be tested by a real FCC examiner — not by some of the thousands who have given their time and talents to become Volunteer Examiners (myself included), right? VEs, turn in your credentials!

With attitudes like yours, it's no wonder some consider this hobby to be on a downhill slide!)

Looking for Santas

I am looking for volunteer Amateur Radio operators with a phone patch to act as a "Santa on the Air" for hospitalized children at Christmas. I would like to see every four-to-six year-old child unfortunate enough to be in the hospital to be able to make his wishes known to Santa Claus next Christmas via Amateur Radio.

If you are willing to volunteer, please contact:

Duane Wyatt, WAØMJD
522 Central Ave. P.O. Box 388
Grant, NE 69140
Telephone: 308/352-2642
E-mail: wyattfive@panhandle.net

10 Meters

After reading the letter by Robert Hilton, N9SJV, and your reply, I felt I should step in and speak my piece on the same subject.

No, you do not have to be a 10-10 member to operate 10 Meters. However, it is becoming more and more prevalent that if you don't have a 10-10 number, no one will talk to you.

I do not consider exchanging and RST, QTH and name to be a QSO.

What happened to the days when you would talk about hobbies other than radio? How come you are ashamed to say you work for a living? Do you have a family? Do you like to experiment with antennas? Have you ever built your own gear?

I realize some of these questions are unnecessary to good communications, but I can remember when we used to get to know the Hams we talked to. We would look forward to seeing them at Hamfests. Usually our wives would get to know each other and a good friendship would evolve. THIS DOESN'T happen often enough any more.

I also remember the "incentive licensing" debacle when the Ham fraternity became separated by class. Kind of reminds one of the two class system. The wealthy class and the working class and never the two should mix or mingle.

I guess what I am trying to put into the minds of your readers is, we are all Amateur Radio operators. Just because you belong to a fringe group doesn't make the non-member Ham any different than you. I feel if we took a little more time to get to know our fellow Hams, we could and would become a closer knit organization.

Who knows what might happen if we just tried it.

George Bolton, K9ZGJ
East Peoria, IL.

(Ed. Well said, George. Too many amateurs are not taking the time to have a good QSO. It's not so much a problem with U.S. amateurs, but just let a rare DX station try to hold a good QSO with a stateside amateur when the band is open. The DX station will be immediately be "spotted" and listed on the DX cluster, and then it's chaos! Everyone wants to contact the DX station for a "new one."

We should all respect each other a little more, have a good time with a good QSO, and who knows, maybe it will rub off on more and more amateurs!)

You missed the point

From the editorial comment added to the letter regarding 10-10 International (January 2001), you seemed to have completely missed the point made by N9SJV. The point is that some (perhaps too many) who belong to 10-10 believe that amateurs can only be on the band if they are also a member. I had the experience many, many years ago of good 10 meter openings worldwide and finding people who only wanted to talk to me if I had a 10-10 number. It would appear that nothing has changed.

Ray Moser, WA8RTI

Amateur Hi

Ted Petrucci, W2EYJ

Recently, on one of those cold windy days, my wife and I were shopping at a food market called "Shop Right."

We noticed a man of about 60 years of age strugling to open his car doors. I looked at his license plate and notice it had Amateur Radio call letters from our local W2 district.

It was extremely cold and he thought his locks were frozen. While he walked around to try the other door, I asked him, while pointing to his license plate, "How long have you been licensed?" He told me about 16 years. While I introduced myself, I pointed to my license plate that reads W2EYJ and said, "How about 68 years?" he smiled and said, "Wow!"

In the mean time, I asked him if he had a match to heat his car key to free his locks. He said he had already tried that and it did not work. At this moment a lady pushing a shopping cart noticed his dilemma and said, "Does it occur to you that perhaps that is not his car?"

I looked at him and and asked, "Is this your car?" He looked at the car and said, "I don't know."

His car, the same color, was parked several spaces away. It also explained his reply when I asked him what his favorite band was. He replied, "Jazz only."

He wasn't a Ham after all!

W-100-N

Notice that the first application was endorsed "all satellite" — I believe this is the first certificate we have endorsed for that mode.

592. Donald W. Dejarnette KC4YRT (All Satellite)
593. J.D. Creel WB4AWM
594. Robert E. Good, Jr. K4BG

CATZ

Three applications were processed for the CATZ award this period. Notice that Jeff worked his strictly CW and says that he doesn't even like CW!

34. Shirley L. Rose AA6K
35. Jeff M. Poston WØIKD (All CW)
36. John O. Buerkle WB3LTT

Bouvet Island (3YØ)

By the time you read this, Chuck will have left the island. This one-man operation has been plagued with many problems. One of them was the generator — the engine was not designed for extreme weather conditions. The crankshaft bearing seals froze and lost sealing ability. The lubricating oil leaked past the seal and drained the sump while the engine was running. Fortunately, they devised means to capture most of the oil and returned it to the engine. Word received at the beginning of February said the diesel generator had been repaired and was back on line. The solid-state amplifier had also failed and Chuck was unable to repair it.

And then there were the weather conditions. Those armchair DXers who sit and complain should check their atlas. Bouvet Island is not in the South Pacific along with pina coladas!

To understand just what the conditions Chuck operated under, Tony DePrato, WA4JQS, a member of the South Sandwich Islands DX Group, had this to say on the matter.

"The SSIDXG has worked for over five years to put a major DXpedition on to Bouvet. Chuck is a member of the South Sandwich Group. We are glad to get anyone on the island. And Hams should understand that this may very well be the only type of operation that will be seen from that island for a very long time. I have received landing permission for Bouvet Island but this is not on top of the island where Chuck operated from. We could land and operate from the rocky beach area just above sea level, but it takes a helicopter to get on top of the ice and the goverment will not allow a large group or a helicopter to disrupt the birds. SSIDXG can not see spending $300,000 to land and operate with our backs against the cliffs. Maybe someday someone will be able to once again go there, but not right now. Chuck is doing a one man operation and he was just told at the last minute that he would be able to work with the group that was going and operate his Ham radio. Chuck has spent many hours keeping the antennas up. Many of the Hams who have never been to the Antarctic or Sub-antarctic don't realize just how hard it is to work there. A 10 minute job that is simple here can take two hours of killer work there. I know, I've done it. Chuck will do his best to give as many contacts as he can in the time allowed. Everyone should be grateful to get a new country contact from Bouvet Island and just keep their fingers crossed to get a new mode contact. Let's just all help Chuck out and may the frequency police look in their own back yards before they put Chuck down. 73, Tony, WA4JQS, VP8BZL, SSIDXG."

The QSL route for this operation is Mark McIntyre, WA4FFW, 2903 Maple Ave., Burlington, NC. 27215. No logs will be available until Chuck returns at the end of March. He is using paper logs so there are no electronic logs. No cards will be processed until after his return. Chuck didn't work all of us. He tried, so be thankful that he was there.

Bhutan (A5)

Glenn Johnson, A52GJ, tells The Daily DX that there are seven new licensed Hams in Bhutan as of the end of January.

Easter Island (CEØ)

Arliss Thompson, W7XU, and his wife, Holly, NØQJM, will be on as CEØY/W7XU and CEØY/NØQJM from Easter Island beginning 29 or 30 March through 8 April. Their major interest will be 6 Meters, CW and SSB. If propagation on that band is poor they will drop down to 10, 15 or 20 Meters. They will handle their own QSL chores.

Malpelo (HKØ)

There is another DXpedition planned for this April with at least three operators. Nothing else is known at this time but keep an ear out for this one. Malpelo is ranked as number 22 on "The Most Wanted List."

St. Kitts (V4)

Joseph Adams, VE3BW, says once again he will be operating from St. Kitts in April. Look for him signing with V47CA from The Bird Rock Beach Hotel using an AP6A vertical antenna and a two-element beam for 6 Meters. His period of operation will be between 9 and 23 April 2001.

Macao (XX9)

Since Macao has reverted back to home ground there has been an effort to remove this DXCC entity as it

now counts as China. To remain as a separate entity, Macao would have to be a member of the United Nations (which it isn't), have its own ITU prefix block (XX belongs to Portugal), or be a member of the IARU.

According to *The Daily DX* it has been noted that the Associacao dos Radioamadores de Macau, the national Amateur Radio Society of Macao, is applying to Region III for IARU membership. Macau has been in limbo since 20 December 1999 when Portugal handed it over to China. Until a decision is made about the prefix or an IARU society is put into place Macau will probably remain on the DXCC list.

Bernie, W3UR, in his DX newsletter says that if it were to be removed, and then gain an ITU prefix block, or be granted an IARU Society, it would then be added back on to the DXCC list and everyone would have to work it again for a new one. With the new DXCC rules any country that does not meet the DXCC rules must be removed (not deleted) from the DXCC list and any old entities that are placed back on the DXCC must be worked by everyone for credit!

IOTA

Roger Balister, G3KMA, the RSGB IOTA Manager, reports the following IOTA operations have provided acceptable validation material to the IOTA committee:

AF-073 TS7N Kerkenah Island (November 2000)
AS-003 4S7WHG/A Sri Lanka Island (November 2000)
AS-043 7L4PVR/1 Hachijo Island (November 2000)
AS-043 JAØAB/1 Hachijo Island (November 2000)
AS-043 JI1PLF/1 Hachijo Island (November 2000)
AS-043 JQ1USM/1 Hachijo Island (November 2000)
AS-117 JH5OXF/4 Ikuchi Island (November 2000)
AS-150 BI4S Lingshan Island (July 2000)
NA-045 XF1/F6BUM Mujeres Island (August/September 2000) NA-214 KL7/W6IXP Stuart Island (July 2000)
NA-215 KL7/K6ST Chamisso Island (July 2000)
OC-067 FOØFRA Bora Bora Island (October 2000)
OC-232 4W6GH/P Atauro Island (July 2000)
OC-237 YB3ZMI Madura Island (October 2000)
OC-239 YC9WZJ/P Batanta Island (November 2000)

This list includes operations where validation material was volunteered, ie not specifically required for credit to be given. In all cases, cards now submitted will be accepted by Checkpoints if they meet normal standards. This means that the island name must be on the card.

The Daily DX reports that Per Mikalsen, LA3FL, who had been signing with JW3FL and JW1I from Bear Island (EU-027) has transferred to Hopen Island (EU-063) for the next four months.

Here is our January 2001 selection of IOTA activity

AF-010 3C1AG	Bioko Island	24-26 Jan
AF-018 IH9A	Pantelleria Island	14 Jan
AF-018 IH9/IZ0BNU	Pantelleria Island	02 Jan
AF-045 6W1RQ	Goree Island	27 Jan
AF-053 J28NH/P	Maskali Island	27-28 Jan
AN-006 EM1KY	Galindez Island	06-18 Jan
AS-153 VU2JSH	Sagar Island	15 Jan
AS-153 VU2SKD	Sagar Island	15 Jan
AS-153 VU2HFR	Sagar Island	14-15 Jan
AS-015 9M2/JI1ETU	Pinang Island	16 Jan
AS-017 7J6CEC	Okinawa	21-27 Jan
AS-017 JS6PXB	Okinawa	24 Jan
AS-025 RAØFU/P	Kunashiri Island	24 Jan
AS-028 UAØQBA	Kotelny Island	17-24 Jan
AS-032 JA6CTW	Yaku Island	04-31 Jan
AS-039 UAØZAL/Ø	Beringa Island	28-29 Jan
AS-045 HL5FUA	Ullang Island	06-23 Jan
AS-047 JI3DST/6	Minamidaitoujima	02-06 Jan
AS-049 JR8GZU/6	Tokara Islands	03-04 Jan
AS-053 HSØ/IK4MRH	Phuket Island	19 Jan
AS-055 JA6GXK	Mejima	11-14 Jan
AS-058 9M2/JI1ETU	Perlis/Kedah State	26-28 Jan
AS-089 UA1PBP/9	Marresal'skiye	18 Jan
AS-103 BV9AAC	Penghu Island	18 Jan
AS-117 JH4TEW/4	Honshu Coastal Is	08-31 Jan
EU-003 CU1AX	Isla Santa Maria	24-29 Jan
EU-003 CU1AC	Isla Santa Maria	17 Jan
EU-008 GMØEWX	Isle of Skye	06-07 Jan
EU-009 GM3POI	Orkney Islands	17 Jan
EU-010 GMØEEY	Benbecula Island	02-20 Jan
EU-010 MMØBJG	South Uist Island	03 Jan
EU-010 MMØBJG/P	Calvay Island	14 Jan
EU-012 GM4LBE	Shetland Islands	16 Jan
EU-016 9A4RV	Korcula Island	13 Jan
EU-016 9A2GF	Brac Island	04 Jan
EU-016 9A2VQ	Brac Island	14 Jan
EU-016 9A4KF	Hvar Island	30 Jan
EU-016 9A3JB/P	Vis Island	14 Jan
EU-016 9A2VQ	Brac Island	22 Jan
EU-016 9A4W	Brac Island	27 Jan
EU-027 JW1I	Bear Island	03-11 Jan

EU-027 JW3FL	Bear Island	12 Jan
EU-029 OZ/DL2JRM/P	Musholm Island	09 Jan
EU-029 OZ/DK1WV/P	Oroe Island	08 Jan
EU-029 OZ/DL2JRM/P	Langoe Island	10 Jan
EU-029 OZ/DK4ARI/P	Lollard Island	27-28 Jan
EU-029 OZ/DK1WV/P	Sjulland Island	06-10 Jan
EU-029 OZ/DL2JRM/P	Sjulland Island	06-09 Jan
EU-029 OZ/DL2JRM/P	Gavnoe Island	07-08 Jan
EU-029 OZ7AD	Falster Island	03-28 Jan
EU-029 OZ8ABE	Zealand Island	14-28 Jan
EU-031 IC8COJ	Ischia Island	03 Jan
EU-031 IC8JAH	Isle of Capri	08 Jan
EU-031 IC8AMR	Ischia Island	03 Jan
EU-037 SM7DLZ	Oland Island	20 Jan
EU-042 DK8OL	Isle of Sylt	20 Jan
EU-043 SM6HBI	Skafto Island	03 Jan
EU-046 LA5QFA	Vanna Island	29 Jan
EU-046 LA1CI	Ringvassoey Island	13-21 Jan
EU-047 DL1BBR	Norderney Island	06-14 Jan
EU-047 DJ9IN	Norderney Island	19-30 Jan
EU-049 SV8CYV	Samos Island	21-31 Jan
EU-055 LB8RE	Sotra Island	20 Jan
EU-055 LA4CM	Karmoy Island	09-29 Jan
EU-055 LA7QIA	Karmoy Island	13 Jan
EU-057 DH9EB	Ruegen Island	21 Jan
EU-060 SV2FPU/8	Skyros Island	13-20 Jan
EU-063 JW3FL	Hopen Island	26-31 Jan
EU-063 JW5RIA	Hopen Island	18 Jan
EU-064 F6IRQ	Yeu Island	27 Jan
EU-096 OH1SR	Korpo Island	17 Jan
EU-120 GB1ØØGN1	Isle of Wight	23 Jan
EU-120 GØWVD	Isle of Wight	19 Jan
EU-123 GM3UA	Isle of Arran	09-17 Jan
EU-124 GWØHGN/P	Anglesey Island	07-20 Jan
EU-124 MWØSSB/P	Anglesey Island	27 Jan
EU-129 DL3BUM/P	Usedom Island	04-06 Jan
EU-129 DL7VOX/P	Usedom Island	02-03 Jan
EU-131 I3THJ	Venezia Island	28 Jan
EU-131 IK3PQH	Lido Island	07-21 Jan
EU-171 OZ1IIT	Mors Island	17-29 Jan
EU-171 OZ4PAX	Vendsyssel Island	14-31 Jan
EU-175 CU3BL	Terceira Island	21-26 Jan
EU-175 CU3DJ	Terceira Island	21 Jan
EU-175 CU3AD	Terceira Island	19-24 Jan
EU-180 UU4JXM/P	Kosa Tuzla Island	23-28 Jan
EU-180 UU2JQ/P	Kosa Tuzla Island	26-28 Jan
EU-180 UU2JMG/P	Kosa Tuzla Island	28 Jan
NA-014 VE9ST	Campobello Island	05-30 Jan
NA-031 W1MFS	Rhode Island State	03 Jan
NA-034 KM4RX	Anna Maria Island	07 Jan
NA-036 VE7IM	Vancouver Island	19 Jan
NA-036 VE7DXQ	Vancouver Island	21 Jan
NA-051 VE7TLL	Queen Charlotte Is	03 Jan
NA-057 AH6PN/HR6	Roatan Island	29 Jan
NA-059 NO7F/KL7	Unalaska Island	11 Jan
NA-062 K2ZR/4	Key West	05-23 Jan
NA-062 WQ4J	Key Largo	03 Jan
NA-072 HP1/LU2ODR	Las Perlas Island	12 Jan
NA-075 VE7MEQ	Gulf Islands	15 Jan
NA-110 KD4NJN	Fripp Island	27 Jan
NA-110 AA4V	Isle of Palms	14-21 Jan
NA-113 AA8LL/C6A	Crooked Island	27-29 Jan
NA-143 AB5EB	Galveston Island	13-31 Jan
OC-033 FK8HC	Lifou Island	13-14 Jan
OC-033 FK8HZ	Lifou Island	05-07 Jan
OC-046 FO5JV	Tahiti Island	07-20 Jan
OC-046 FO5RA	Tahiti Island	14 Jan
OC-066 FOØCLA	Rangiroa Atoll	16 Jan
OC-066 FO/DL5XU	Rangiroa Atoll	29-31 Jan
OC-067 FOØKUN	Bora Bora Island	17-18 Jan
OC-119 DU8ARK	Jolo group	31 Jan
OC-129 G3IZM/DU7	Guimaras Island	05 Jan
OC-137 VK4GP	Bribie Island	24-27 Jan
OC-142 VK4FW	Frazier Island	05-08 Jan
OC-146 YC8UFF	Sulawesi Island	29 Jan
OC-149 H44NC	New Georgia Is	12-30 Jan
OC-201 ZL1DD	Waiheke Island	16-27 Jan
OC-243 VK6BSI	Breaksea Island	19-21 Jan
SA-008 LU8XW	Terra del Fuego	23 Jan
SA-008 LU3XX	Terra del Fuego	12-14 Jan
SA-026 PP5OW	Santa Catarina Is	04-23 Jan
SA-026 ZX5Z	Anhatomirim Is	25-27 Jan
SA-029 ZX5T/1	Gipoia Island	04-08 Jan
SA-046 PY7ZY/7	Itamaraca Island	20-22 Jan
SA-046 PY7XC	Itamaraca Island	24 Jan
SA-057 CVØF	St Gabriel Island	12-15 Jan
SA-064 CE7AOY	Isla Las Huichas	20-27 Jan
SA-067 PY1NEZ/PP1	Frances Island	05-15 Jan

IOTA DXpedition

Recently it was discovered that there is big body of salt water on the dark side of the moon. Not only that, there is a large island in the center of the sea. Roger Balister, G3KMA, the RSGB IOTA Manager, and his sidekick, Neville Cheadle, G3NUG, will head a special IOTA DXpedition to the island and will commence operations on 1 April. Look for Roger and Neville signing with MOØN. The contact will count as a wild card and valid for island in the continent of your choice. Any DXer working them on five bands will receive a special plaque made of green cheese. QSL requests should be sent to: I. R. Aham, WB7QRZZ, P.O. Box 1742357800622549, Cove Fort, UT, 00000. Only cards sent with a significant donation to help defray costs will receive a card in

return. Because the DXpedition cost approximately $1,000,000,000, a donation of $500,000 would be considered the minimum acceptable contribution.

New 17-meter DXCC

Bill Moore, NC1L, of the DXCC Desk, announces the addition of a 17-meter Single-Band DXCC award. Applications for this award will be accepted beginning 2 January 2001. 17-meter DXCC certificates will be dated but not numbered. 17-meter credits will also count toward the DeSoto Cup competition for the year 2001.

Bill also says that if you do not know what credits you have on 17 Meters, you may contact DXCC for an update prior to applying. This will help avoid duplicates and additional costs. If you have web access and can handle Adobe ".pdf" files, contact the DXCC Desk at dxcc@arrl.org for a copy of your record. If you do not have web access, send a note to DXCC along with $1.50 for postage or an SASE with $1.50 in postage. For further information, please contact DXCC at dxcc@arrl.org.

Most wanted list

No, this isn't America's Most Wanted, but rather the DXers. If I remember correctly the idea was created by the late Chod Harris, VP2ML, of *The DX Bulletin*, and has been continued by Carl Smith, N4AA, editor of QRZ DX. The list includes 100 of the most wanted DXCC entities, although we have limited this list to the top 25. The listing is shown in the year 2000 ranking order, which includes the prefix and name of entity. The two columns to the right are the 1999 and 1995 rankings, respectively.

1 P5 North Korea	1	--
2 VU4 Andaman Islands	2	2
3 BS7 Scarborough Reef	4	--
4 3Y Bouvet Island	6	11
5 VU7 Lakshadweep Islands	7	8
6 KH5K Kingman Reef	18	47
7 YA Afghanistan	11	31
8 VP8 South Sandwich Islands 9	32	
9 3Y Peter I Island	15	90
10 7O Yemen	5	4
11 KP1 Navassa Island	26	--
12 3D2 Conway Reef	21	69
13 KP5 Desecheo	22	--
14 KH1 Baker & Howland Islands	43	76
15 VP8 South Georgia Islands 17	62	
16 VP9 Mellish Reef	27	56
17 FR/J Juan de Nova	12	20
18 YVØ Aves Island	28	83
19 VP8 South Orkney Islands	31	72
20 SV/A Mount Athos	19	9
21 VKØ Heard Island	8	3
22 HKØ Malpelo Island	30	26
23 ZL8 Kermadec Islands	77	14
24 KH7K Kure Island	72	78
25 TI9 Cocos Island	52	84

You might ask why is Kingman Reef ranked as number six on the most wanted when just the year before that it was ranked 18th, and four years earlier it was ranked 47th? There are several reasons for this — such as the results of the survey and how many

DX Prediction — April 2001

Maximum usable frequecy 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 = 111. 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 AM
8	17	15	*28	13	*21
10	*(21)*	*13	*24	*20	*19
12	29	*20	*21	*25	*28
14	33	17	*21	*28	*35
16	*35	14	19	*27	*39
18	*36	*(13)*	18	*26	*41
20	*33	22	33	*23	*43
22	*27	*26	*40	19	*42
24	*23	*27	*43	*14	*39
2	*21	24	*42	*13	*32
4	*21	*20	*42	*17	*27
6	19	17	*34	*15	*23

WEST COAST

UTC	AFRI	ASIA	OCEA	EURO	SO AM
10	16	*16	*26	13	*22
12	24	*14	*23	21	18
14	30	*18	*19	*25	*29
16	33	*18	19	*26	*35
18	*35	*21	18	24	*39
20	*33	*29	*33	22	*42
22	*27	*30	*40	18	*42
24	23	*29	*43	*(13)*	*39
2	*21	*28	*43	*17	*32
4	*21	*25	*41	*19	*27
6	20	*22	*38	16	*23
8	18	*19	*31	14	*20

EAST COAST

UTC	AFRI	ASIA	OCEA	EURO	SO AM
7	*22	14	*26	*13	*21
9	24	*13	*23	*20	*19
11	*34	*20	*20	*25	*28
13	*40	17	21	*28	*34
15	*41	15	19	*28	*38
17	*40	*(13)*	*(18)*	*27	*41
19	*36	20	27	*25	*42
21	*30	25	38	*21	*42
23	*25	*27	*42	*16	*39
1	*22	24	*41	*14	*32
3	*18	*19	*38	*13	*27
5	*25	16	*31	*15	*23

have responded. Another reason is that there are many more new DXers that were not chasing DX at the earlier dates.

Dayton DX dinner

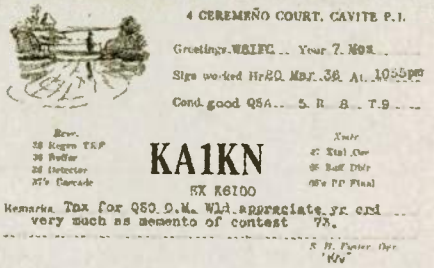
Those of you DXers planning on visiting the Hamvention in Dayton this May should include the Dayton DX dinner sponsored by the Southwest Ohio DX Association, Friday evening, 18 May 2001 at the Crowne Plaza Hotel. Tickets are $32.00 and must be purchased in advance. Send your check or money order to Steve Bolia, N8BJQ, 7354 Thackery Road, Springfield, OH 45502. Make checks payable to SWODXA and include an SASE. Further information is available from http://members.aol.com/SteveB4622/.

Antique QSL department

I have selected cards this month from three different readers. The X2F card comes from Mexico, but has no QSO data and was submitted by Al Miller, VE7KC. No doubt the date was sometime during the 1930s as Al was living in Vancouver at the time and signing with VE5KL.

Back in 1938 Lyman Treaster, W6IFC, worked KA1KN on 40 Meters receiving an RST report of 589. The operator was S.H. "KN" Foster, who was in the military in the Philippine Islands. His former call was listed as K6IOO, which would have been a Hawaiian call.

The third card is another QSL card from China, submitted by Lew Wilhelm, W7TB. For that 1938 contact with XU8AG Lou was signing W6NGD and received an RST report of 579 on 40 Meters. The operator at XU8AG was listed as Andre Guillabert and he was running 70 watts. Lew is a Silent Key and his call has been reissued to the Northern Arizona DX Association.



QSL information

QSL cards for VKØMM, Macquarie Island, are now available from Alan Roocroft, VK4AAR, P.O. Box 421, Gatton, QLD 4343 Australia. Alan will not accept requests via the bureau. All excess proceeds from contributions will be donated to a charity.

According to the *425 DX News*, Victor, UA2FM, says the new Russian postal rules specify that all mail to post office boxes must include the name of the subscriber. All mail without that information, or an incorrect name, will be returned. He also says mail addressed to radio clubs, such as RW2F, UA2 Contest Club, must include a name, such as Victor Loginov. Avoid sending green stamps, and of course, avoid any reference to radio anywhere on the envelope. This is also just plain common sense to anywhere in the world.

Brett Graham, VR2BG, recently sent out another box of some 600 QSL cards. He has now answered 2,600 of the 38,000 contacts he has made. Brett says not to afix Chinese stamps on your SASE, as they are no good in Hong Kong. Hong Kong still has its own money, its own stamps, its own police force, they drive on the other side of the road, etc. He says to be sure to put your country in your address on the SAE and do not send old, worn, dollar bills as the money changers will not accept them.

Thanks go to the following contributors for this month's column: VE3BW, VE7KC, K3ZO, WA4JQS, W6IFC, W7TB, Western Washington DX Club (WAØRJY), WebCluster

correct this problem. If your Amateur Radio club is conducting a licensing class, make sure that voluntary band-plans and operating courtesy are part of the agenda. Licensing classes should have as a goal much more than just the ticket. It is our responsibility to fully prepare new radio amateurs for their first steps into Amateur Radio. Many currently licensed radio amateurs are also unaware of band-plans. This would be an excellent topic for an upcoming Amateur Radio Club meeting.

If you come across a radio amateur operating in violation of the band plan (e.g. operation on a non-standard simplex frequency, etc.), don't be afraid to politely discuss the issue with him. However, please don't be confrontational and try not to bring up such issues publicly (on repeaters, etc.).

Another tool is peer-pressure. While perhaps an uncomfortable method to use, it is often quite effective when combating such problems. There are times one simply needs to have enough fortitude to simply speak out about rude and unprofessional conduct.

Perhaps the best tool of all is that of setting a good example. Traffic nets should set an example of the highest quality operating procedures and courtesy. Let's avoid on-air confrontations and do our best to accommodate other Amateur Radio users. While this is already standard practice on the vast majority of traffic nets, there is always room for some improvement. Let's set an example of operating courtesy and professional conduct that will serve as a standard for the entire Amateur Radio community. I have no doubt that high standards will do much to attract new operators to traffic nets.

Inside Amateur Radio

The following story has been excerpted from Inside Amateur Radio, by the late Lenore Jensen, W6NAZ. The book can be purchased from Worldradio Books, P.O. Box 189490, Sacramento, CA 95818. Price is $9.00 plus $2.00 shipping and handling. CA residents please add 70¢ sales tax.

The case of the Labrador cat

It didn't happen to Yardley Beers, WØJF, himself, but he swears it was told to him by a Ham in Allentown, Pennsylvania. The radio contact was between a station in Pennsylvania and one in Labrador. Their conversation went:

Labrador: What do you do for a living?

Pennsylvania: I'm a veterinary surgeon and I just happen to have my radio shack right here in the animal hospital.

Labrador: That's just what we need here. Our cat is sick.

Pennsylvania: What's wrong with her?

Labrador: (described the symptoms)

Pennsylvania: Nothing serious, just give her some sulfa in the amount I will prescribe and she will be all right in a few days.

About a week later a second contact took place:

Pennsylvania: I've been desprerately looking for you. Unfortunately I told our newspaper about how I prescribed for your cat and they are pestering me to find out how she is. How is she?

Labrador: Fine. Stand by a minute and I'll get her to tell you herself.

When the Labrador Ham brought the cat to the microphone, no amount of persuasion or coercion could get her to make any sound at all.

Now sometimes a bit of "radio frequency" (RF) gets loose around radio rooms. Touching metal can produce a small spark similar to static electricity.

While still refusing to make any sound, she started to sniff the microphone. Sure enough, there was RF on it! She emitted a loud yowl!

Labrador: There, did you hear that?

Pennsylvania: Did we ever hear that! Listen! (His hospital was erupting with a loud chorus of barking patients!)

Terry Douds, N8KI

AO-40 problems continue

Hello everyone. It's been an interesting couple of months in terms of amateur satellite operation. Some problems have arisen, and it's caused a few setbacks. How will it affect what we do in the amateur satellite service? This remains to be seen.

If you have been following my columns over the past few months, all focus has been upon Phase 3D, now known as AO-40. Everyone was really excited, as the project finally culminated in a successful launch, and the bird was transmitting telemetry. Initially, the 70-cm transmitter appeared to not be working. The control operators reprogrammed the satellite to transmit telemetry via 2 Meters. They had both S-band transmitters as well, but because of the directional antennas used for those transmitters, the orbit had to be correct, and that orientation would still be months off.

The first problem was to learn to control, or "fly" the satellite. The control operators needed to ready the satellite for the first of a series of burns of its 400N engine, which would begin to move it into it's final Molniya orbit. The firing is an automated function, since the position of the bird at the time of firing would be over the equator, and no control operator would have any direct control. For some reason, there was a problem with helium pressure, which is needed to open the firing valve, and it didn't do the burn. They then reprogrammed the satellite to do it two days later. This time, the engine fired, but apparently the burn was significantly longer than had been programmed. Consequently, the satellite moved into a position that was not originally expected; however, telemetry was still being received, and measures were being taken to determine placement and how to do subsequent burns to correct the problem. Then suddenly, on 13 December the telemetry stopped.

There are automatic functions aboard the satellite that should reset when a situation like this happens. However, they take numerous days to occur; consequently, everyone waited with some trepidation in hopes that it would come back to life. One concern was that a foreign object had hit the satellite. NORAD stopped this speculation when they did a radar cross-section and found the bird to be in one piece.

On Christmas Day at 21:45 UTC, Ian, ZL1AOX transmitted an L-band reset command to switch on one of the two S-band transmitters. Just after this attempt, the beacon was heard on 2401.305 MHz. AO-40 was back! Grateful e-mails were seen on the AMSAT-bb from all over the world.

What many of you may not realize is that the AMSAT control operators are located all over the world — G3RUH in the UK, DB2OS in Germany, ZL1AOX in New Zealand, VK5AGR in Australia, and W4SM in the U.S. — and they have other lives too! The fact that they give of their time and expertise to and for all of us is a thankless job, and we all should be extremely grateful.

Through analysis of the initial telemetry, it appeared that some temperature sensors on board may have sustained some slight damage, but more data was (and still is) needed. Because of the directionality of the S-band antennas, telemetry can only be received for a portion of each orbit at various positions. Consequently, many have been receiving the telemetry from around the world and sending it to AMSAT for processing by the command team.

On 8 January, Karl Meinzer, DJ4ZC, Project Manager for AO-40, gave an initial report concerning the investigation to that point. Some testing was done that showed that all receivers seemed to be working, and that the high-gain antennas were also ok, but that a problem seems to have occurred with the low-gain antennas in Modes U & L. Initial testing of the V-Band transmitter resulted in no output and a temperature rise, but there was more testing to be done to accurately determine its status. He expressed confidence that, despite its problems, the satellite will be functional in the future — although its mission likely will be different from the one planned prior to launch. On the AMSAT News Service, he said, "Personally, I am optimistic and I believe that the command-and-engineering team stand a good chance of turning AO-40 into an extremely useful Amateur Radio satellite."

AMSAT-UK's Richard Limebear, G3RWL, has put some thought into AO-40's future, and he stated on the AMSAT-bb that "we know so far that the S-band transmitter and the L-band receiver are working and the IHU-1 is operational. If this is all AO-40 will be, we could at least do some kind of 400 baud PSK digital communication via IHU-1. In addition, if the IF-matrix is functional (and telemetry shows it linked the S-band transmitter), SSB/CW via a linear-transponder will be possible. If AO-40 reaches such a state, we will get as much or more than AO-10 and AO-13 offered, only on more state-of-the-art frequencies. I keep in mind that AO-40 is an experimental satellite, and from experiments we can learn."

ANS reported on 28 January that the sun sensors are giving erroneous data, and that it may take some months to be able to obtain accurate pointing information that will allow the controllers to place the bird into its final positioning. Several systems remain to be tested, including the arcjet motor. This motor is a critical item for making future orbit changes that will be required for satisfactory operation of the satellite. Another very positive item is that the magnetorquing systems appear to be working, which should

also help make the needed (future) attitude adjustments.

It was noted that when Phase 3D was launched it was announced that it would take almost one year of commissioning efforts and orbital changes before the satellite would be considered fully operational. Thanks to the hard work of the commissioning and recovery teams, this time appears to be shortening. The unanswered question remains: what degree of functionality will AO-40 actually meet? This is the question the command team is working very hard to answer. We should all keep our fingers crossed and wait for the command team to get the bird into shape.

While this recovery was occurring, another satellite appeared to be ending its life. SUNSAT, also known as Oscar 35, went silent on 19 January. The South African control station at the University of Stellenbosch was doing routine maintenance on the satellite when the transmissions stopped.

After two weeks of intense recovery work, all efforts to make contact with the bird have failed. Recovery efforts will continue, but confidence that any success will be achieved is very low.

Sunsat was launched 23 February 1999, and by 19 February 2001 had completed 10,027 orbits. This translates to having traveled over 500 million km around the globe. It was the University's first satellite, and was considered a great success. One of the primary functions of the bird was to take high-resolution pictures around the world, and many were taken and transmitted to the control stations. Many utilized the bird daily, and it will be missed.

On happier notes, a couple of upcoming meetings have been announced. The Annual AMSAT-UK Colloquium will be held at the University of Surrey, in Guildford, Surrey, United Kingdom, 27-29 July 2001.

AMSAT-UK is inviting speakers to submit their papers about Amateur Radio space and associated activities, both for the Colloquium and the Proceedings document to be published at the same time. AMSAT-UK is also inviting requests for Colloquium program topics.

Offers of papers should be submitted as soon as possible; the final date for full documents to be received is 15 June 2001.

G3RWL reports that an added Colloquium attraction this year will be 'Show and Tell' presentations. In these, the presenter will be given ten minutes to tell about a useful project they are involved in. Additionally, AMSAT-UK will be offering sessions specifically for Amateur Radio satellite beginners.

Colloquium submissions should be sent to G3RWL via the following routes:

Internet e-mail: g3rwl@amsat.org

Terrestrial mail: RWL Limebear G3RWL
60 Willow Road
Enfield EN1 3NQ
United Kingdom

More information about the AMSAT-UK Colloquium can be found at: http://www.uk.amsat.org/colloquium.htm

Also, here in the U.S., space enthusiasts and amateur satellite operators are invited to the Maryland-DC area AMSAT Meeting and Space Seminar. The gathering takes place on Sunday, 1 April 2001 in the Visitor Center of the NASA Goddard Space Flight Center in Greenbelt, Maryland.

Topics at the seminar will relate to the amateur space program, Amateur Radio, homebrew electronic projects, high-altitude balloon experiments, telemetry and related items. AO-40 and ARISS news will be featured.

The GSFC Visitor Center will also be open to the public during the event. Visitors can enjoy a walking tour of the Hubble space telescope Operations Control Center and the NASA Communications Center. The Educator's Resource Center will also be available for gathering student and classroom materials.

More information about the event can be found at the following URL: http://simsat.gsfc.nasa.gov/ssamsatdc.html

For additional information on the GSFC Visitor Center, visit: http://pao.gsfc.nasa.gov/vc/vc.htm

Mir will finally be de-orbited on 6 March 2001. It is planned to have it drop into the Pacific Ocean late on that day. While losing that former space station, the International Space Station is up and operating, and the crew is expected to turn on the packet system very soon. The ARISS packet system will identify as RZ3DZR-1 and will transmit a periodic beacon every two minutes. Earth stations are asked to refrain from using the Packet Mailbox System at this time, as the crew will not have a computer to read messages initially. Packet reception reports should be sent to the ARISS team. For more information on ARISS, visit the ARISS Web site at: http://ariss.gsfc.nasa.gov/.

I'm a little long this month, so that's about it for this installment. — Terry Douds, N8KI, our down-to-earth Amateur Radio satellite guru can be reached by mail at: 344 E. Fifth Ave., Lancaster, OH 43130-3143, or by e-mail at: n8ki@amsat.org.

Gracey joins LDG

LDG Electronics has appointed Everett Gracey, WA6CBA, as their representative to handle sales to Amateur Radio dealers worldwide. LDG Electronics is a manufacturer of automatic antenna tuners, digital wattmeters and other amateur products. Gracey's selection by LDG Electronics comes following his long career in the Amateur Radio business community. He was the co-founder of Mirage Communications in 1979 and co-founder of RF Concepts in 1986. He has also authored several books. — *Newsline*

Richard Fisher, KI6SN

Revisionist history: the tuna tin-2, plus 1

One of the great joys of playing with QRP gear over the years has been the luxury of pulling out classic rigs for a little dose of nostalgia when the mood strikes.

New radios, with the latest bells and whistles, are all well and good. But shaking the dust off those rigs from yesteryear now and again can be a lot of fun, too.

The Tuna Tin-2 is one of the classic radios that gets an occasional workout at KI6SN. This little two-transistor milliwatt transmitter was designed by the late Doug DeMaw, W1FB, and featured in *QST* in 1976. It enjoyed a resurgence of popularity in the late '90s when the circuit was updated with modern inductors, featured in NorCal QRP Club's *QRPp* magazine, and offered in kit form by the New Jersey QRP Club.

Sitting atop a tuna fish can, the printed circuit board is home to a down-to-earth, no-frills two-transistor circuit featuring a crystal oscillator and RF amplifier. Thus, the TT-2. It was textbook simplicity. Even changing from transmit to receive was done manually with a toggle switch.

The Plus 1 PC board strikes a vertical pose after being plugged-in to the TT-2's 12 volt jack. A shorted phono plug is placed in the rig's original key jack atop the TT-2's PC board.

Examining the TT-2 schematic reveals that the operator is actually keying the B+ line going to the transmitter. Closing your code key allows 12 volts DC to flow into the rig. Letting up on the key shuts it off.

There's a certain beauty and purity to circuitry this rudimentary. It goes to the essence of QRP.

When Mr. DeMaw drew this circuit for publication in '76, straight keys were still in wide daily use on QRP operating desks around the country and the world. Running 12-volts through the contacts was a great way to go.

With the growing popularity of electronic keyers, though, the TT-2's hot keying scheme was pushing it further and further to the back of the operating table. Keyers just weren't suited for that kind of duty.

On a recent afternoon at KI6SN I was in one of those nostalgic jags but didn't have the energy in my right arm to pump a straight key for any length of time. I believe the conventional term for this is "lazy."

What I really wanted was to take a whirl on 40 Meters with the TT-2 using an electronic keyer.

How do you do that without messing with this classic DeMaw circuit? Just because you're lazy doesn't mean you fire up the soldering iron and forever alter one of the most renowned transmitters in QRP history. It wouldn't be a TT-2 anymore, now would it?

Any modification would have to be done low-impact and outboard. After about 10 minutes of staring at the transmitter on the bench, it came to me. By adding a simple bipolar transistor keying switch at the TT-2's 12-volt input jack we could isolate the electronic keyer from the DC line and

still duplicate the voltage-on/voltage-off scenario Mr. DeMaw put into the original design.

Adding a keying transistor would make this a TT-2, Plus 1. We were onto something, here.

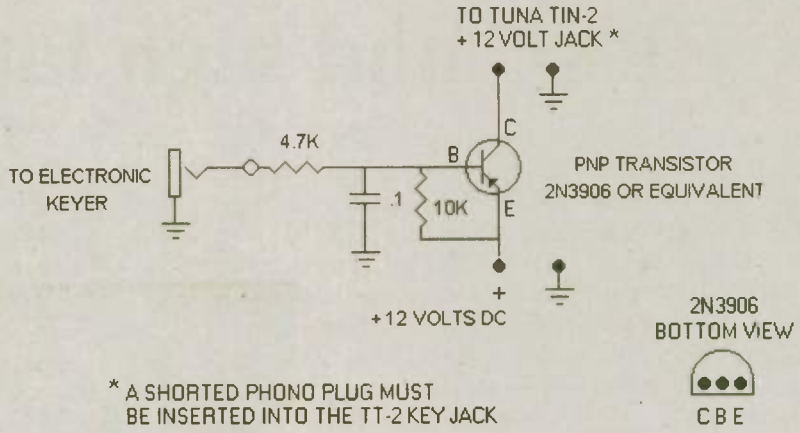
Simple transistor switches can be found in handbooks and reference material from a jillion sources. But I wanted any modification to the TT-2 to have Mr. DeMaw's fingerprints on it.

Grabbing a copy of W1FB's "The ARRL Electronics Data Book," I found the perfect solution on Page 8-16 under the heading "Bipolar DC Switches." In fairness, it's a circuit that pops up in transmitter and transceiver circuits far and wide. Mr. DeMaw undoubtedly chose it as a tried-and-true design for illustration.

A low current PNP 2N3906 switching transistor (RadioShack 276-1604), a phono plug, jacks, two resistors and a capacitor are all that are needed to do the job.

At KI6SN, Manhattan-style construction was chosen, using a small piece of doublesided PC board just an inch wide and slightly more than 1.5 inches long.

An RCA phono plug with full metal housing (RS 274-339) was soldered to the PC board in a through-hole drilled just large enough to accommodate it. This would allow the Plus 1 to be plugged directly into the side of the TT-2. Sort of like adding a solar panel to the International Space Station.



The KI6SN "Plus 1" add-on to the Tuna Tin-2 features a PNP switch allowing electronic keying. When the keyer is engaged, the base of the 2N3906 is grounded, causing the bipolar transitor to conduct +12 volts to the TT-2.

Two RCA phono jacks (RS 274-346) were added by putting a 90-degree bend in their ground lugs, then soldering the lugs to the small PC board. The jack pointed vertically is for the 12 volt line. The jack horizontally is where you plug in your electronic keyer.

Since I wasn't envisioning operating from anywhere but home with this rig, the construction didn't need to score very high on the "rugged" scale.

Two small circular pieces of PC board were glued to the plane as solder points — Manhattan-style — for the 2N3906, resistors and capacitor.

Once you've completed building the Plus 1, which takes about 10 minutes, it's time for final preparations for adding the module to the TT-2.

First, plug a B+ line into the Plus 1's 12 volt jack. Then your electronic keyer into the Plus 11s keying jack.

Now, plug the Plus 1 board into the 12 volt jack of the TT-2. You're almost ready to rock and roll.

There's one important final step before going on the air. Because the Plus 1 is now keying the TT-2 through the 12 volt input line, it's necessary to put a shorted phono plug into the TT-2's original key jack, which sits on top of the TT-2 PC board.

OK, time for the smoke test. Squeeze your keyer. If all is in order, you should hear the sweet sound of electronically-generated dits and dahs.

How does the TT-2 sound with the Plus 1 and an electronic keyer added? On air reports have been great. Keying is smooth and crisp.

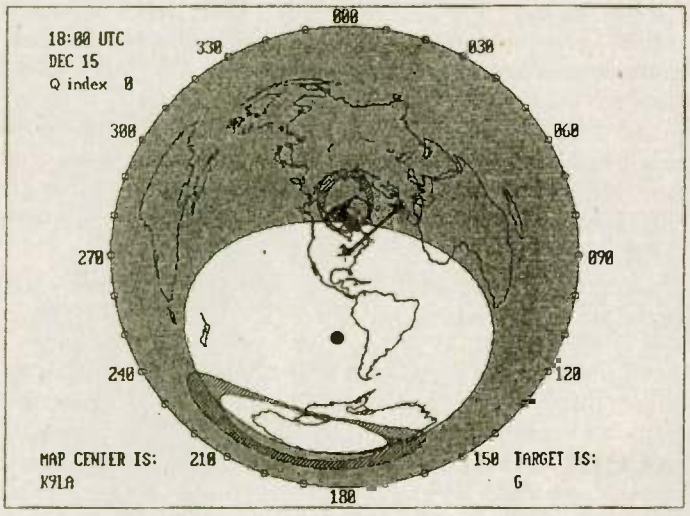
Perhaps the best part is that by simply unplugging the Plus 1 and the shorted key plug, you're back to the original, unmodified Tuna Tin-2. It's the best of both worlds.

Carl Luetzelschwab, K9LA

ICEPAC and high latitude paths

In the January column, I showed how to download and use the free VOACAP propagation prediction software. Included in that download was a bonus program named ICEPAC, which is essentially VOCAP with a better high latitude ionosphere model for more accurate predictions on paths that go to high latitudes. Let's take a look at one such path, and see what ICEPAC says when the Earth's magnetic field becomes disturbed.

As I mentioned at the end of the January column, the only input difference between VOACAP and ICEPAC is the entry of a Q index. Q is the effective geomagnetic activity index. For all intents and purposes, Q equals the more familiar K index plus 1 as seen in Figure 52 of the Userman.doc manual (except for low values, where they are equal).



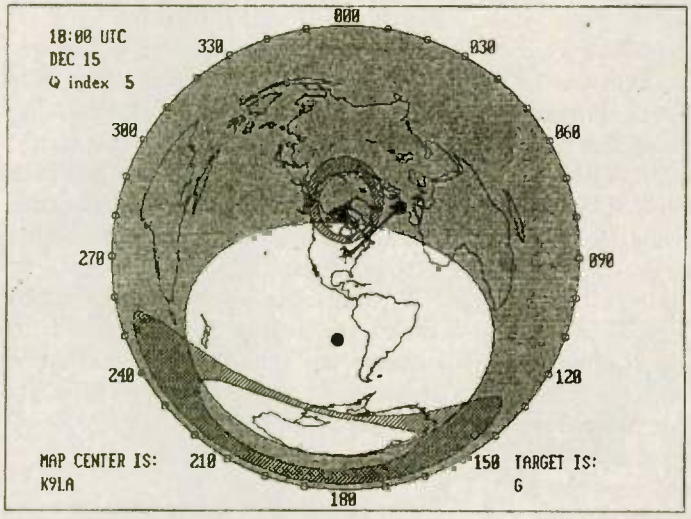
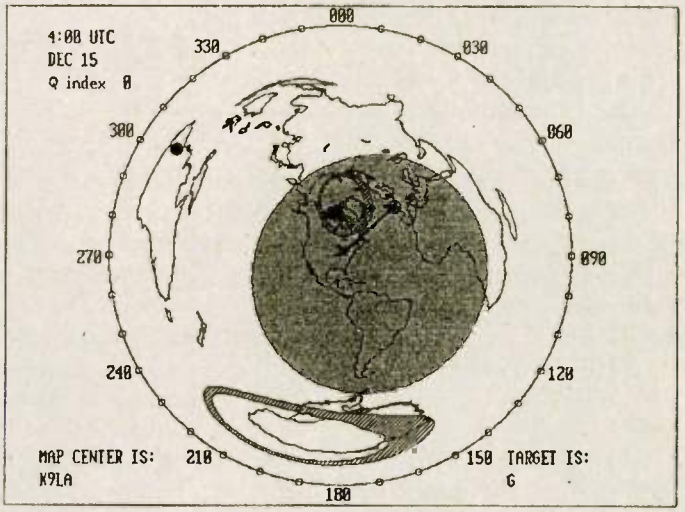
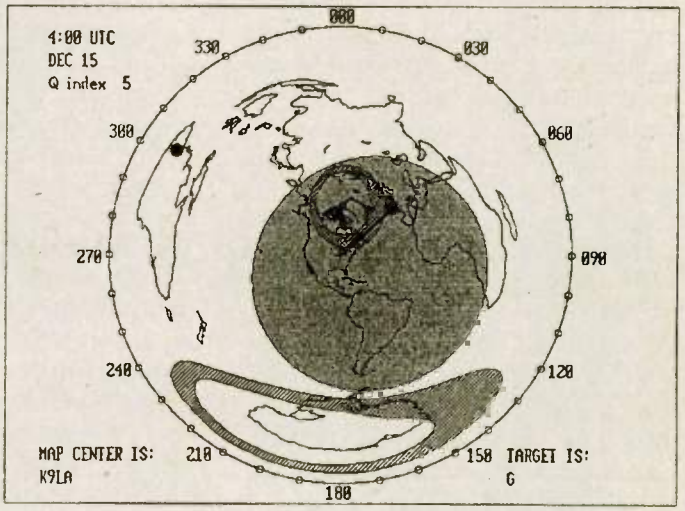


Figure 1 Auroral Oval at 1800 UTC.





Let's look at a path from my QTH in Ft Wayne to G (England) on 10.1MHz. Figure 1 shows this path for December 15 at 1800 UTC (1PM local time in Ft Wayne). The auroral oval for Q=0 and Q=5 are shown in relation to the path using maps generated from Peter Oldfield's DXAID 4.5 software (poldfield@proxymedia.net).

High latitude problems are associated with the mid-latitude trough at the equatorward edge of the auroral oval, the auroral oval itself, and the polar cap

Q	median MUF	10.1MHz availabiltiy	10.1MHz median signal power
0	24.8MHz	1.00 (31 days)	-108dBm
5	24.8MHz	1.00 (31 days)	-108dBm

Table 1 1800UTC

area inside the auroral oval. Since the path from my QTH to England misses these areas at 1800 UTC under both Q=0 and Q=5 conditions, we should expect that this path will not be affected. Running an ICEPAC prediction gives the results shown in Table 1. Indeed, the predictions say the disturbed magnetic field shouldn't affect this path at 1800 UTC.

Now let's change the time to 0400 UTC (11 p.m. local time in Ft. Wayne). Figure 2 now shows that the path misses the problem areas when Q=0, but the path goes right through the auroral oval when Q=5. Thus we should expect to see degradation in our ability to communicate over this path.

Table 2 gives the results of the ICEPAC prediction. The median MUF at Q=0 at 0400 UTC is initially lower than Q=0 at 1800 UTC because darkness has fallen over the entire path now and recombination of the electrons and positive ions has been taking place for some time.

Q	median MUF	10.1MHz availabiltiy	10.1MHz median signal power
0	12.1MHz	.90 (28 days)	-109dBm
5	9.4MHz	.38 (12 days)	-121dBm

Table 2 0400UTC

The median MUF dropped from 12.1 MHz at Q=0 to 9.4 MHz at Q=5. That's says the probability of the band being open has gone down, which is seen in the decreased availability. Additionally, the signal power decreased a couple S-units.

This example I went through on 10.1 MHz behaved rather nicely, and came out generally as expected. But more interesting things can happen on other paths and frequencies, depending on how the path falls in relation to the E region electron density gradient (auroral electron precipitation) and the F region electron density gradient (the mid-latitude trough). You'll undoubtedly see some of this if you play with ICEPAC enough.

All this says ICEPAC may help us to better understand what's going on with our high latitude paths. But remember these are still predictions, and I haven't addressed how accurate they really are. That will be the topic of a future column.

File all club station applications, except vanity, through a CSCSA

With the exception of vanity call sign applications, the FCC now only accepts club station applications from one of the three FCC-designated Club Station Call Sign Administrators. As of 22 January 2001, the FCC began accepting new, modification and renewal applications for Amateur Radio club and military recreation stations only from a designated CSCSA. These may only be filed as original, hard-copy applications using the NCVEC Form 605 or W4VEC Form CSCSA. Online filing via the Universal Licensing System to modify or renew an Amateur Radio club and military recreation station license no longer is available. Applications to renew Radio Amateur Civil Emergency Service, or RACES, licenses also must be filed via a CSCSA, but the FCC no longer issues or renews RACES licenses. The three CSCSAs are ARRL, W4VEC Volunteer Examiners Club of America, and W5YI-VEC. The NCVEC 605 application form is available on the ARRL Web site, http://www.arrl.org/fcc/forms.html.

All applications for vanity call signs must be filed directly with the FCC. Information on filing a vanity call sign application is on ARRLWeb at http://www.arrl.org/arrlvec/vanity.html. — *ARRL Letter*

Kurt N. Sterba

Kurt strikes back

There is something wrong in radioland. There is nothing wrong not knowing something; even Kurt doesn't know everything. The problem is when someone absolutely knows something that is wrong, wrong, wrong.

Not long ago Kurt wrote about a typical mobile installation with a 10-foot length of coaxial cable between the rig and the antenna. And he said that there was nothing wrong with having as much as 10:1 SWR on that cable as long as you had a tuner at the transmitter end to give it the proper load. There is negligible loss in that short a cable especially down on the lower frequency bands.

A reader brought up another (supposed) problem with 10:1 SWR; loss at the antenna due to the mismatch. After telling Kurt that he, Kurt, needs to repeat Radio 101 because he is ignorant of fundamental transmission theory he states: "Kurt should figure out, with a 10:1 SWR at the antenna, how much transmitter power is radiated by the antenna. In case he cannot figure it out it is approximately 33%. For a 100 watt transmitter, less than 33 watts will be radiated. I wonder where the rest of the power goes?"

Kurt can tell him. It also is radiated by the antenna. With 10:1 SWR the power radiated from a 100 watt transmitter is 100 watts. Minus a tiny loss in the cable and whatever loss takes place in the mobile antenna itself.

Kurt explains

What the reader is talking about is 'Reflected Power'. When the antenna impedance does not match the coaxial cable impedance not all of the power coming down the cable is absorbed by the antenna. Some is reflected back toward the transmitter. How much? If the SWR is 10:1 and the transmitter power is 100 watts then 67 watts is reflected and 33 watts goes into the antenna.

This sounds terrible at first glance. But let's look a little further. What happens to the reflected 67 watts? It does not just disappear. Remember the First Law of Thermodynamics: The amount of energy in a closed system remains constant. In other words the 67 watts can't just disappear. It has to be somewhere. Kurt has already explained that there is negligible loss in the cable so the RF energy is not turned into heat energy there. Some will tell you that it goes back into the transmitter and heats it up. But it doesn't. So where does it go?

The 67 watts is totally reflected back at the transmitter end of the cable, adds to the transmitter power and goes back to the antenna. That's where it goes.

This means that, in this case, there is 167 watts going toward the antenna. Kurt will explain how you can check this out in a simple experiment you can do right in your shack.

The transmitter is putting out 100 watts. The 167 watts is going down the cable toward the antenna. What happens at the antenna? The 100 watts, the total transmitter power, goes into the antenna. About 67 watts is reflected back toward the transmitter. Very simple. The 10:1 SWR has not caused us to lose any power at all.

Experimental proof

Here's how you can satisfy yourself that Wise Old Kurt is correct and that all those who try to convince you that reflected power is lost are full of baloney.

You need a transmitter, a wattmeter, a tuner, and an antenna connected to the tuner with coaxial cable.

Connect the wattmeter between

the transmitter and the tuner. Then connect the antenna's coax cable to the tuner. Later we'll move the wattmeter to be between the tuner and this cable. Kurt used two identical wattmeters but you can use just one and move it.

Put the tuner on "Bypass" and find a frequency with high SWR. You probably won't be able to get 10:1. Kurt was able to get 3:1 by moving to the edge of the band. Whatever SWR you can get, the higher the better, just look up the expected amount of reflected power using the table in the Antenna Book. Use any convenient power. Kurt used 40 watts out from the transmitter.

Now, with the high SWR on the line to the antenna, cut in the tuner and adjust it for 1:1 SWR on the line between transmitter and tuner. Now adjust the transmitter and measure its output. If you have just one power meter make sure the power stays there when you turn the transmitter off and back on again.

Move the meter and place it inline between the tuner and antenna cable. Measure the forward power there and also the reflected power. Make sure you write down the readings. But don't use them just yet. You know the transmitter power but you don't know how much of it is coming out of the tuner. There will be a power loss in it, Kurt guarantees it.

How to find the loss? Connect the tuner output to your 50 ohm dummy load. Or find a frequency where the antenna gives 1:1 SWR (tuner bypassed). Switch in the tuner and adjust it for 1:1 on the cable between tuner and transmitter. Adjust for the same power as before. Move the meter to the tuner output and measure the power. It will be less by the tuner's loss. Use this value in your calculations as the 'transmitter power'.

Now you know transmitter power, forward power on the antenna cable and reflected power on the antenna cable. The forward power should equal the transmitter power plus the reflected power just as Kurt explained.

Kurt's results

Kurt's setup was just as described above. Since his power meter was 50 watts full scale he adjusted the transmitter power so that he got exactly 50 watts forward on the antenna cable. (All the other readings will be smaller and so will be within the meter's limit). The reverse power there was 13 watts.

The measured power at the transmitter output was 42 watts. The loss in the tuner was 5 watts so the actual power out of the tuner was 37 watts.

You'll note that the forward power going down the antenna cable (50 watts) is 13 watts more than the transmitter power applied to it. That extra 13 watts is the reflected power that adds to the forward power to give you more forward power total than the transmitter puts out. That's what happens to the reflected power. Now, with 50 watts forward power, 13 watts can be reflected and the full transmitter power coming to the antenna cable (37 watts) goes into the antenna.

Try this experiment and convince yourself. Then you can straighten out those who talk about reflected power being lost.

Bill Orr, W6SAI

Bill died in January at age 81. Over the years he was one of the most prolific writers in Amateur Radio. Kurt still has his "Radio Handbook" on his bookshelf. He wrote many articles for *QST* but Kurt remembers him for his "Ham Radio Techniques" column in *Ham Radio* magazine 1968-1990. He was an expert on big tube amplifiers and antennas. He wrote his column when Yagis were designed by cut-and-try. He promoted the first amateur computer antenna design program by K6STI. He described many useful antennas such as the 'Australian broadband dipole'. He was one of those who really helped Amateur Radio.

Kurt fan needs help

Kurt made a reference, many, many moons ago, to a company called "Skyware Communication Technology" of British Columbia. The Kurt fan, Bill Clarke, W2BLC, is wondering if anyone has any information on this company. Are they still around? If you can answer Bills question, send him an e-mail message: bill@w2blc.com.

Maybe Lil' Paddle is right, Kurt can't seem to remember what he did last week, let alone several years ago. Kurt is losing his mind! Well, that's what Lil' Paddle must think. Lil' is always saying, "Kurt, have you lost your mind?"

Have a perplexing problem putting a proper signal out using a wire or leafless aluminum tree? Send your question to Kurt!

Contest Chart

Contest	Date & Time	Bands	QSO points	Multipliers	Exchange	Entry Categories	Entries
SP DX Contest (Poland)	1500Z 7 Apr 2359Z 8 Apr	160-10M	3pt/QSO Work SP only	Polish provinces (49) SPs will send 2-letter province abbreviation	RST Ser#	Single Op: All bands, single band Multi-op SWL	1mo. Box 320, 00-950, Warsaw
Spanish RTTY	1600Z 7 Apr 1600Z 8 Apr	80-10M RTTY	2pt/DX 1pt/NA x2 on 40, 80M	CQ Zones and Spanish Provinces (52) EA stations will send 1- or 2-letter province abbreviations	RST CQ Zone	Single Op: All bands, single band Multi-op SWL	Box 240 09400 Aranda de Duero (BU)
YLRL DX-YL to NA-YL CW	1400Z 7 Apr 0200Z 9 Apr	80-10M CW	1pt/QSO YLs in North America work YLs on other continents. Alaska counts as outside NA	DXCC countries ARRL/RAC sections	RST QTH	Single Operator only	30 days WO6X
Japan Int'l DX High-Band CW	2300Z 6 Apr 2300Z 8 Apr	20-10M CW only	2pt/JA Work JA only	JA Prefectures (50) JAs will send 2-digit prefecture number	RST Ser#	Single Op: Both bands, single band Multi-op	30 Apr Box 59, Kamata, Tokyo 144
QRP ARCI Spring QSO Party CW	1200Z 7 Apr 2400Z 8 Apr	160-6M CW	5pt/QSO with QRPARCI mbr., 4pt/DX non-mbr 2pt/North Am. Non-mbr.	US States, Canadian Provinces and Territories, DXCC countries Multiply your score by 1 of you ran over 5w, by 7 if you ran under 5w, by 10 if you ran under 1w, or by 15 if you ran under 250mw.	RST QTHplus QRPARCI mbr #; non-mbr send pwr	Single op: All bands, High bands (6-10M), Low bands (40-160M) Also "teams of two to five entrants - register your team with N6GA before the contest	30 days N6GA
King of Spain	1800Z 7 Apr 1800Z 8 Apr	80-10M CW and SSB	1pt/QSO	Spanish Provinces (52) worked on each band Spanish stns will send 1 or 2 letter province identifier after theSer #	RST Ser#	Single Op Multi-op SWL	16 May Box 220 Madrid Spain
Australian Postcode Contest	0000Z 14 Apr 2359Z 14 Apr	80-10M CW and SSB	10pt/QSO Work VK only	Australian postal codes. VKs will send a four-digit number after the RST.	RST Ser#	Single op: CW only, SSB only SWL	30 days Oceania DXG, Box 929 Aympie QLD 4570 Australia odxg@keylink.com.au
Holyland DX Contest (Israel)	1800Z 14 Apr 1800Z 15 Apr	160-10M CW & SSB	1pt/QSO x2 on 160-40M Work Israel only	4X,4Z stations will send a five-char. area identifier (ex: E14TA, H08HF) Each unique identifier is amult on each band	RST Ser#	Single op all bands Multi-op, single tx SWL	31 May Box 17600 Tel Aviv 61176 Israel
YU DX Contest (Yugoslavia)	1200Z 21 Apr 1200Z 22 Apr	160-10M CW only	1pt/own ITU Zone 3pt/oth NA 5pt/DX	ITU Zones and Yugoslav prefixes on each band	RST ITU Zone	Single op: Mixed mode, CW only, SSB only Multi-op, single tx	30 days Box 48 11001 Beograd
European Spring Sprint CW	1500Z 21 Apr 1859Z 21 April	80-20M CW	1pt/QSO	None	your call, other stn's call, Ser#, name	Single operator only	15 days G4BUO
Michigan QSO Party (USA)	1600Z 21 April 0400Z 22 April	160-10 CW & SSB	1pt/SSB 2pt/CW +5pt bonus for QSOs with K8EPV, W8JXU	For stations outside Michigan: MI counties (83) For MI Stations: MI counties, US States, Canadian provinces and territories, DXCC countries	RST Ser# QTH	Single Op Multi-op Mobile Free logging software at http://www.qsl.net/mrrc/mqp.html	30 days K8CC or e-mail to MQP@contesting.com
Ontario QSO Party (Canada)	1800Z 21 Apr 1800Z 22 Apr	160M to microwaves CW, SSB and FM (No FM on 146.52)	1pt/QSO 10pt/VE3ODX, VA3RAC Stations outide Ontario work only Ontario stations	For Ontario stations: Ontario counties, districts, regional municipalities(49), Canadian Provinces, Territories, US States, DXCC For others: Ontario counties, districts, regional municipalities (49) only.	RST QTH Ont Stations send 3-letter county abbrev.	Single Op all bands mixed mode: High pwr, low pwr, QRP; Single Op all bands CW only: Highpwr, low pwr, QRP; Single Op all bands SSB only: Highpwr, low pwr, QRP; Single op Single Band; SIngle op VHF-UHF FM QRP; Multi-operator, Mobile (may be more than 1 operator); SWL	31 May Box 161 Stn A Willowddale ON M2N 5S8 or e-mail to ve3sre@compuserve.com
MARAC SSB County Hunters Contest	0000Z 28 Apr 2359Z 29 Apr	80-10M SSB	1pt/US or Cdn 5pt/DX 15./Mobile stn	USA Counties worked regardless of band	RS County QTH	Mobiles Fixed stations	29 May K8CW
Helvetia 26 (Switzerland)	1300Z 28 Apr 1300Z 29 Apr	160-10M CW & SSB	3pt/QSO Work HB9 only	Swiss Cantons (26) on each band HB9s will send 2-letter Canton abbreviation	RST Ser#	Single op all bands Multi-op single tx SWL	14 Jun HB9DDZ
Nebraska QSO Party (USA)	1700Z 28 Apr 1700Z 29 Apr	All Amateur bands (exc, 10, 18, 24) all modes	1pt/Fone QSO 2pt/ all other modes	For stations outside Nebraska: NE counties (53) ForNEi Stations: NE counties, US States, Canadianoprovinces and territories, DXCC countries to a maximum of 30	RST QTH	Single Op Multi-op single tx Mobile	31 May NE QSO Party Box 375 Elkhorn NE 68022-0375 or e-mail to hdxa@qsl.net
Florida QSO Party (USA)	1800Z 28 Apr 2400Z 29 April	80-10M CW and SSB	1pt/SSB QSO 2pt/CW QSO	For Florida stns: US States, Canadian RAC Sections, DXCC on each mode For others: Florida counties (67) on each mode Multiply your score by 1 if you ran over 150w, by 2 if you ran under150w, by 5 if you ran under 5w.	RST QTH	Single Op Multi-op Single tx Multi-op multi-tx Mobile (may be more than one operator) Novice/Technician class licensees each of thse categories are further divided into high power, low power and QRP categories.	30 days K4OJ or e-mail to FLQSOParty@aol.com
Massachucetts QSO Party (USA)	1800Z 5 May 2100Z 6 May 0400-1100Z off time for all entrants	All bands	1pt/Phone QSO 2pt/CW, digital, sstv QSO, Stns outside MA Work MA stns only; MA stns work everyone.	Stns outside MA: MA counties (14) on each band MA stns: MA counties, US States, Canadian Provinces and territories, DXCC on each band	RST QTH	- Outside MA - MA Single op - MA Multi-op - MA Portable - MA team (5 MA single ops)	6 Jun FARA POBox 3005 Framingham MA 01701 USA or e-mail to n1tyh@aol.com
ARI DX (Italy)	2000Z 5 May 2000Z 6 May	160-10M CW, SSB and RTTY	0pt/VE 1pt/NA 3pt/DX 10pt/Italy	Italian Provinces (103) + DXCC on each band Is will send a 2-letter province abbreviation.	RST Ser#	Single op: All modes, single mode Multi-op, single tx SWL	1mo. Box 14 27043 Broni (PV) Italy
Connecticut QSO Party	2000Z 5 May 2000Z 6 May (0400-1200 off time for all)	160-2M Phone CW RTTY	1pt/Phone, RTTY QSO 2pt/CW QSO 5pt/QSO with W1QI or W1AW	Connecticut counties CT stations count CT counties, US States, Canadian Provinces and Territories, DXCC countries	RST QTH	Single op: fixed, mobile,Novicce, QRP Multi-op: Single tx, multi-tx	6 June CARA, POBox 3441, Danbury CT 06813-3441 USA
Nevada QSO Party	0000Z 5 May 0600Z 6 May	160-6M CW SSB RTTY Packet	1pt/Phone QSO 2pt/other modes	Nevada counties Nevada stations count Nevada counties, US States, Canadian Provinces and Territories, DXCC countries	RST QTH	unknown	NW7O
Oregon QSO Party	0000Z 5 May 2359Z 6 May	All bands (exc 10, 18, 24MHz) All modes	1pt/Phone QSO 2pt/CW QSO	Oregon counties (36) Oregon stations count Oregon counties, US States, Canadian Provinces and Territories, DXCC countries	RST QTH	Single Op Multi-op Mobile Novice/Technician	30 June K9QAM
A. Volta RTTY (Italy)	1200Z 5 May 1200Z 6 May	80-10M RTTY		DXCC + Call areas in Canada, Australia and USA	RST Ser# CQ Zone	Single Op: All bands, single band Multi-op single tx SWL	31 Jul Box 55 22063 Cantu
Indiana QSO Party	1800Z 5 May 2300Z 6 May	160M-70cm CW and Phone	2pt/Phone QSO 3pt/CW QSO	Indiana counties (Indiana stations also count US States, Canadian Provinces and territories and DXCC countries	RST QTH	Single Operator Multi-operator VHF/UHF	11 June Sharon Brown, 905 W Parkway Dr, PleasantLk, IN 46779 USA
CQ-M Int'l DX Contest (Russia)	2100Z 5 May 2100Z 6 May	160-10M +satellites CW, SSB and SSTV	1pt/own country 2pt/other NA 3pt/DX	DXCC countries + Russianautomous oblasts, Arctic islands, Crimea (UU), 4U1VIC (see full rules)	RST Ser#	Single Op Single band: Mixed mode, CW only, SSB only, Satellites Single Op All Bands: Mixed mode, CW only, SSB only, QRP Multi-op single tx.; SWL; World War II veterans: SSTV only	1 July CQ-M Ctte Box 88 Moscow Russia or e-mail to: cqm98@mal.ru
European Spring Sprint SSB	1500Z 12 May 1859Z 12 May	80-20M SSB	1pt/QSO	None	your call, other stn's call, Ser#, name	Single operator only	15 days DL6RAI

Addresses: CQ - 25 Newbridge Rd., Hicksville NY, 11801 USA ARRL - 225 Main St Newington CT, 06111 USA. Callsign - Callbook Address
Bands: The 30, 17 and 12M bands are never used in any contest. Please confirm the dates of these events on the enet at http://home.sol.no/~janaime/hammain.html or http://www.sk3bg.se/contest/

ALABAMA

Bankhead ARC Hamfest 9 a.m. 28 Apr at H.A. Alexander Park, Moulton Recreation Center(Court St., Moulton, AL) Adm $5. Tables: $10. VE exams @ 9:15 a.m. TI: 146.960, 442.425. For info: www.n4idx.org; Ed Weatherford, KS4B, 256/974-0436, ks4b@juno.com; Lee Creuzer, N8MHC, 256/351-7916, n8mhc1@cs.com; Sonny Blankenship, 256/974-7808, n4jdb@earthlink.net.

ARKANSAS

Little Rock Hamfest 4 - 8 p.m. 20 Apr & 8 a.m. - 4 p.m. 21 Apr. at Little Rock Expo Center. Adm. $7. Tailgate spaces $15, Fleamarket tables $20, Dealer tables $30. ARRL forums, WAS/DXCC card checks, foxhunts. For info: Jim Blackmon, K5VZ, 1008 Pine St. Arkadelphia, AR 71923-4919, 870/246-6734 (office) 870/246-7833 (home) 870/246-6736 (fax). Web page: www.aristotle.net/~ares/lrh99.html

CALIFORNIA

The Valley of the Moon ARC(W6AJF) Hamfest on 28 April, 8 a.m. - Noon, at Sonoma Valley Veteran's Memorial Building(126 1st Sreet West, Sonoma, CA). Adm: FREE. VE exams @ 9 a.m. Swap Spaces: $10. Set-up @ 7 a.m. There will be a full breakfast served from 8 - 10 a.m. Each plate $5. Talk-in: 145.35 (-600) PL 88.5. For more info: Darrel, WD6BOR, 707/996-4494.

CONNECTICUT

Southington Amateur Radio Assoc.'s Annual Fleamarket on 1 April, starting at 9 a.m., at Southington High School. Adm: $5. Tables/Tailgating: $15. TI: 145.49, 224.80, and 444.25(PL 77). For info: Chet Bacon, KA1ILH, c/o SARA, P.O. Box 873, Southington, CT 06489. Phone: 860/628-9346. Email: ka1ilh@chetbacon.com.

ILLINOIS

Moultrie Amateur Radio Klub Hamfest, on 29 April, from 8 a.m. - 1 p.m., at the Moultrie/Douglas county fair grounds. Adm: $5(14 and under FREE). Tables: $10 advanced. TI: 146.055/146.655 & 449.275/444.275. For table and info: MARK, P.O. Box 91, Lovington, IL 61937. Phone: days 217/543-2178, nights 217/873-5287.

INDIANA

Columbus ARC Hamfest 8 a.m. - 2 p.m. 7 April. at Bartholomew County 4H Fairgrounds, Community Building on State Rd. 11, S.W. of Columbus, IN. Adm. $4.50/adv., $5/door. Tables $8. TI: 146.790/146.190. For info: Marion Winterberg, WD9HTN, 11941 W. Sawmill Rd. Columbus, IN 47201-8000. Phone: 812/342-4670; e-mail: carc_in@yahoo.com.

MISSOURI

Lebanon ARC April Fest, 7 April, at Agbarn, Kenneth E. Cowan Civic Center 500 E. Elm St., Lebanon, MO 65536. Free adm. Table: $8. VE exams @ 10 a.m. Info: Chuck Sears, AAØRK, 10901 Welch Bridge Rd., Niangua, MO 65713. Phone: 417/589-8122. E-mail: freedom1@advertisnet.com.

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Joplin ARC Hamfest 2001, 14 April, 8 a.m. - 3 p.m., at John Q. Hammons Trade Center, 3615 Range Line Rd. Adm: $5 adv., $6/door(under 12 FREE)-Tables: $10. Tables: $20. VE exams @ 9:30. TI: 147.210+. For info: Ray Brown, KBØSTN, c/o JARC, P.O. Box 2983, Joplin, MO 64803-2983. Phone: 417-781-4967. Email: raybrown@ipa.net. Web: www.joplin-arc.org.

NEW HAMPSHIRE

Interstate Repeater Society Spring Hamfest/Flea Market, 7 April, Lions Club Hall(Mammoth Rd., Lonoonberry, NH). Adm: $10 at 6 a.m., $3 at 8 a.m. Tables: Paul, 603/883-3308, K1LLX@juno.com. VE Exams: 9 - Noon. TI: 146.850 PL 85.4. For info: Bill, 603/424-2857, bills@aa1oc.org.

OHIO

Twenty Over Nine ARC Hamfest 8 a.m. -2 p.m. 29 Apr. at Mahoning County Career and Technical Center(7300 N. Palmyra Rd., Canfield, OH.) Adm: $5, spaces: $2, tables: $10. VE exams. TI: 147.315, 145.275. Info: Don Stoddard, N8LNE, 55 S. Whitney Ave., Youngstown, OH 44509; 330/793-7072; n8lne1@juno.com.

SOUTH CAROLINA

Salkhatchie ARS Tailgate 2001, 28 April, in Windsor, SC. Adm: FREE. Tables: $5. VE testing, door prizes, ARRL sanctioned. For info: Adam S. Hoffman, AF4QZ, P.O. Box 93, Bamberg, SC 29003-0093. Phone: 803/245-4673. Email: AF4QZ@arrl.net.

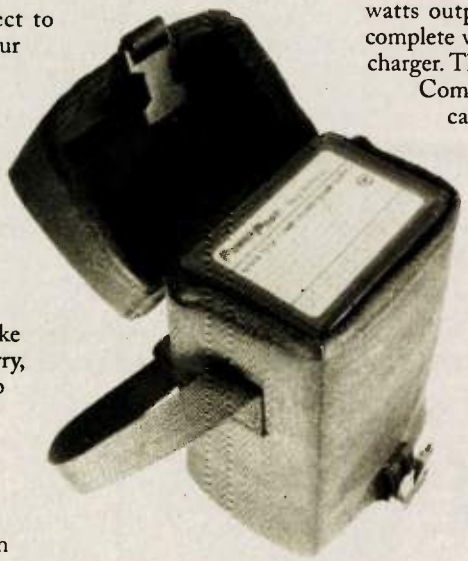
TEXAS

The Brenham, Taxas Ham Swap Meet, 31 March, 8 a.m. - 12 p.m., at Washington County Fairgrounds. Adm: FREE. Tables: $5, Commercial Tables: $10, Flea Market, Swap Tables, Vendors. TI: 147.260 (+.600). For tables and info: Brenham Ham Fest, P.O. Box 44, Brenham, Texas 77833. Phone: 979/836-9417. Email: angdenis@TCA.net.

New Products

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

Battery in a bag



For about what you would expect to pay for a single gel cell 7.5 amp hour battery, Hams now can have a complete power source that's portable and easy to use. Cutting Edge Enterprises now has this simple and handy Battery in a Bag. The bag is a padded heavy-duty nylon case with a sturdy buckle-down lid. The lid also has room for accessories, like additional wires, small headsets and microphones. There's also an adjustable strap handle to make this a truly portable, and easy to carry, power source. It comes with a 8 amp gel cell battery — ideal power for your HT, FT-817, FT-100 or IC-706. Portable operation is getting easier all the time, and this new power source is just the thing to have for those times you are away from a commercial power source — camping, boating, out for an evening stroll, on the beach, or just about anywhere you can go, but without having to carry a car battery for power. Priced at $33.95, it's a great bargain, too! To get yours, contact Cutting Edge Enterprises, 1803 Mission Street, Suite PMB-546, Santa Cruz, CA 95060. Telephone: 800/206-0115; fax: 831/4260115, or visit their web site at: www.powerportstore.com.

FT-817 fanny pack

This is a product each and every Ham that has purchased the new Yaesu FT-817 QRP HF rig has got to have. This little radio is so revolutionary, you can literally hang an all-band HF, all mode, HT on your belt! And Cutting Edge Enterprises has just the pouch for the job! This new fanny pack system consists of two separate products that can be used separately, or in unison with each other.

The first part, the HI-817A, is a steamlined, lightweight padded pouch to hold the radio. Exterior pockets hold the antenna and an optional battery. You can hang your microphone wherever you want with the clip-on microphone bracket that can attach to the pouch, your belt, your pocket, or wherever you need it to be. By attaching this padded pouch to your belt, you now have the world's first HF HT! The HI-817A sells for $37.95. The second part of the system is the fanny pack, HA-817B, that when combined with the HI-817A pouch, allows you to carry your FT-817 anywhere around your waist for added comfort. The HI-817B sells for $37.95.

But there's more! By adding the optional HP-23JR power supply and two stage charger, you can keep talking when you're out mountain-topping. It has an optional rechargeable 12V battery that gives you 5 watts output and 2300 milliamp hours of storage. It also has a complete wiring harness for the FT-817 and a two stage automatic charger. The HP-23JR is being offered for $59.95.

Combine the two parts and you have a complete and easy-to-carry portable system designed for the FT-817. There's zippered pouches to carry your accessories, and nylon webbing loops and tie downs offer lots of additional carrying options. To order both the pouch and fanny pack, order part number HM-817. The combined system, consisting of the HI-817A and HI-817B is offered at $73.95.

To get yours, contact Cutting Edge Enterprises, 1803 Mission Street, Suite PMB-546, Santa Cruz, CA 95060. Telephone: 800/206-0115; fax: 831/426-0115, or visit their web site at: www.powerportstore.com.

New power supply

If you are like us poor folks out here in California, you realize the problems we are having with a reliable source of AC power for our radios and even our homes and businesses. Realizing a great need for additional power sources, ACME Enterprises, LTD of Eastern Somalia, is now offering an attractive alternative.

Orginally installed in Russian Navy warships, surplus nuclear reactors are being refurbished and miniaturized for home and small business use. Each of these units comes with a supply of renewable fuel cores, and additional cores are available. Each of the cores will last approximately 10 years and are easily replaced by the owner. All you have to do is follow the easy step-by-step directions, and you're good to go for another 10 years!

These newly refurbished units are environmentally clean, and will supply all of your electrical needs for years to come! You won't be at the mercy of the utility companies ever again.

The units are 8 feet long, and 6 feet high. Proper installation requires an additional 4 feet of clearance on all sides of the reactor core, and lead shielding in the walls of the new "utility" room must be at least 2 feet in thickness. Plumbing for the cooling supply and steam generation can be easily installed by the average do-it-yourself'er, (a crane may be required to install the reactor and the lead shielding in the walls). A 250,000 acre-feet lake is recommended as a supply for the cooling water. (Your lake can provide additional water recreation facilities.)

A complete 14,072 page owner's manual and installation instructions are included with each unit, as well as all the forms necessary to file for a license issued by the Nuclear Regulatory Commission. You also get a handy lead sheild suit to protect you from any stray radiation leaks.

You can be the envy of your neighborhood by keeping your lights on, forever, and you can thumb your nose at your local utility company! Not only can you thumb your nose at them, you can sell your excess power back to them at exhorbitant rates.

This economical unit is priced at $1,847,995.95. Lead shielding is available for $175,000, and the complete do-it-yourself plumbing kit is only $76,417.00. Several easy-payment plans are available.

The ACME Nuclear Power Supply is available by contacting: ACME Enterprises, LTD., P.O. Box 10477893347611245890001, Glowtown, Eastern Somalia, Africa. For additional information, see their web page: http://www.you-too-can-glow-in-the-dark.com or by sending an e-mail message to: aprilfool@jokes-R-us.com.

Front panel controls include power switch, a multi-function keypad for direct frequency entry and secondary functions. Additional controls include volume, squelch, operating modes (VFO, Memory or Search) keyboard lock, and an "arrow matrix" to aid in menu choices. There is also a front panel connection for headphones.

The AR8600 comes with a movable front support, a BNC antenna port with telescoping antenna and operates on 12 volts DC from a power cube or station power supply.

"The AR8600 is a strong advancement in receiver technology," said Mr. Nakayama. "We believe there will be a strong demand for it by commercial and institutional operators as well as those listening enthusiasts who demand the best."

The new AOR AR8600 suggested retail price is $989.95. It's available from any AOR authorized retailer, and is selling for less than $900.00 at most retailers.

For additional information, contact AOR U.S.A., Inc., 20655 S. Western Ave. Suite 112 Torrance, CA 90501. Phone: 310/787-8615; fax: 310/787-8619.

AOR AR8600 Wide Range Receiver

AOR USA has introduced the new AR8600, terming the new wide-range receiver a new standard for demanding users.

"The AR8600 reflects a blend of advanced technology, innovative thinking and some proven techniques in giving the operator a world of listening choices and options," said Taka Nakayama, Vice President for AOR USA. "The AR8600 is so advanced, its design has been awarded U.S Patent 6,002,924. It can accommodate optional cards that allow the user to add extended features and it can accept Collins mechanical filters for amazing selectivity."

The AR8600 has a Temperature Compensated Crystal Oscillator (TCXO) as an extremely stable frequency reference. It can hold up to 1000 memories (20 banks x 50 channels/bank) and can search those memories for signals at a rate up to 37 channels per second. In addition, there are 40 different search banks. Tuning range is 520 kHz ~ 2.040 GHz. By law, cellular frequencies are blocked, but an unblocked version of the AR8600 is available to qualified agencies.

Receive modes include wide FM, narrow FM, super-narrow FM, wide AM, narrow AM, upper sideband, lower sideband and continuous wave. Received signals are processed through a newly designed front end. There are three operating modes, VFO (featuring two independent VFOs), Memory and Search.

Innovative features include an area for up to three optional slot cards that perform various functions, including: CTCSS, Tone Eliminator, Voice Inversion, Digital Recording and External Memory. In addition, optional collins Mechanical Filters can be addred for precise selectivity. In the wide FM mode, the AR8600 can use its 10.7 MHz IF output in conjunction with the SDU5500 Spectrum Display Unit. The AR8600 can also display spectrum activity on its front-panel display.

Computer management of the AR8600 is done through a rear-panel RS-232C port and free software for controlling the unit is available from the AOR web site, http://www.aorusa.com, www.aorusa.com. Each memory can store frequency and an array of special choices, including alpha-numeric channel labeling.

PC-500 QRP 2-band transceiver

PATCOMM has introduced an affordable, compact, low power tranceiver with an array of standard features and performance found in radios at twice the price. This new radio runs from 1 to 15 watts of power from an adjustable control on the front panel. It features CW and SSB modes on any two bands that the user specifies — from 160 to 6 Meters. It's PSK31 ready with the addition of the optional VOX board and PC interface cable. The SSB performance on transmit is enhanced with the use of RF clipping and VOGAD to achieve superb audio quality and punch without distortion.

The PC-500 is a compace 8" wide, 7.5" deep and 2.75" high and wighs less than 4 lbs. It has a dual line digital display with transmit and receive frequencies always being displayed along with mode and band. Push button band selection, fast and slow AGC, switchable preamp, attenuator, RIT, split and VST (variable speed tuning) with minimum 10 Hz tuning steps plus a frequency lock button are standard. An analog S/relative power meter is also included. The built in Iambic CW keyer can be used with a standard paddle or an AT style computer keyboard. Patcomm's patented keyboard interface control allows you to send perfect CW, change bands, modes and frequency — all from the keyboard! Also included is Patcomm's unique DVF (Digital Variable Filter) that gives steep, continuously adjustable, selectivity from 2.7 kHz down to 600 Hz and is used within an audio derived AGC

loop. Also included is a top firing speaker for great room-filling audio.

Other bands can also be used by removing the top cover and swapping the plug-in modules with optional band modules.

The cabinet features all-metal construction, including machined metal knobs, along with G-10 commercial quality PC boards to give this radio a fit and finish all its own.

Suggest price for the PC-500 is $395, with two bands included. Options available include extra band modules ($35/ea.), noise blanker ($35), upgrade to 8-pole xtal IF filter (5 pole standard) ($35), VOX board ($25), hand microphone ($25), keyboard w/mini to din adapter ($25), mobile mounting bracket ($40), PC interface cable ($20 — for use with VOX board for plug and play with your computer sound card for PSK31 or other digital modes).

For more information about the PC-500, contact Patcomm Corp., 7 Flowerfield Suite M100, St. james, NY 11780; telephone 631/862-6511. E-mail: patcomm1@aol.com; web site: www.patcommradio.com.

David Clark to ressurect around-the-world attempt

Within hours of a maritime disaster in which his sailboat sank and his beloved canine companion Mickey was lost at sea, 76-year-old David Clark, KB6TAM, was ready to once again set sail. Despite the devastating loss, Clark has vowed to continue his effort to become the oldest person to sail solo around the world.

Clark may have Ham radio to thank for being alive. According to media accounts, when Clark realized he was in trouble, he used his onboard Ham gear to call for help.

Following his rescue 07 February, Clark told his wife, Lynda, that he would complete his journey "if I have to swim." Clark had begun the final leg of his round-the-world sail when his vessel, the *Mollie Milar*, sank two days after leaving Cape Town, South Africa. He had hoped to reach Ft. Lauderdale,

Florida, where he began his journey in late 1999, by mid-May, a sail of approximately 7,000 nautical miles from South Africa.

Clark now is back in Cape Town, thanks to several South African amateurs, and he's making plans to restart his adventure with another vessel.

Lynda Clark said that since speaking with her husband by telephone, she's been able to get more accurate details on what happened the night of 07 February, when the *Mollie Milar* began taking on water and her husband and Mickey, a west highland terrier, had to abandon ship in rough seas.

Clark is said to have put out a distress call via Amateur Radio, and his call was picked up in Cape Town and relayed to maritime rescue authorities.

"It was very fortunate that there was a ship close by," she said.

The container vessel *Emonte* was equipped to mount a rescue effort. The *Emonte* launched a lifeboat with a crew of four, which subsequently capsized.

But David Clark and Mickey were not aboard at that point.

With the initial rescue effort foiled and thinking the ship might not be able to rescue him after all, Clark prepared his own lifeboat for launch, Lynda Clark said. By then, the ship was within a few feet of Clark's 44-foot steel-hulled sailboat and again ready to attempt a rescue. A line was thrown, and Mickey was put into a sling to bring him aboard first, but he wriggled free and was lost at sea.

For his part, Lynda Clark continued, "David had all he could do to get himself up the side of that ship at this point, and limited time to do it."

"We are totally indebted to the people on the ship who rescued David and brought him safely back to East London port," Lynda Clark said. "And we can't express how much we appreciate the Ham operators and all the people of South Africa who have loved and supported David and are now offering him so much assistance."

Hams in East London paid Clark's fare to Capetown and arranged for a hotel. Another group of hams is said to be looking after Clark in Cape Town.

"He will complete the goal, we just don't have the date yet," Lynda Clark said. For more on David Clark's journey, visit www.dclark.com and www.captainclark.com. — *ARRL Letter*

ARRL Outgoing QSL Service announces revised rates

The ARRL Outgoing QSL Service has announced a new and simplified rate structure, effective 01 March 1, 2001. The new basic rate will be $4 per one-half pound (8 ounces, or approximately 75 cards) or any portion of a half-pound, a change from the current rate of $6 per pound or any portion. DXers still may ship 10 cards for $1, but the 20 and 30-card rates are being discontinued. The new rate structure will help to cover basic handling costs for smaller packages while actually offering a price break to moderate-volume users submitting up to one-half pound of cards. Under the current rate schedule, a half-pound of cards would cost $6, but it will be $4 under the new schedule. The new rates are in response to the recent postal rate increase and price restructuring.

The Outgoing QSL Service is available to ARRL members. The last rate increase was in January 1999. For information on using the ARRL Outgoing QSL Service, visit ARRLWeb, http://www.arrl.org/qsl/qslout.html. — *ARRL Letter*

VE Exams

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.

p/r pref=pre-register preferred but w/i OK
p/r=pre-register only—no w/i
w/i=walk-in only
w/i pref.=w/i preferred to p/r

Date	City	Contact	Notes
Alabama			
4/17/01	Opelika	Mary, KL7P 334/741-9087	p/r
Arizona			
4/05/01	Tucson	David, K7IOU 520/749-2884	p/r pref
Arkansas			
4/14/01	Harrison	David, K5DEL 870/741-8604	p/r pref
California			
4/14/01	Carisbad	Rusty, AA6OM 760/747-5872	p/r pref.
Hotline	Carmichael	Info Hotline: 916/492-6115	w/i
4/28/01	Cathedral City	Doug, WY6I 760/322-1214	w/i only
4/26/01	Colton	Harold, AB6RN 909/825-7136	p/r pref.
4/28/01	Culver City	Scott, K6PYP 310/459-0337	w/i
4/28/01	Escondido	Harry, WA6YOO 760/743-4212	p/r only
4/09/01	Fremont	Dennis, K6DF 408/255-9000	w/i
4/28/01	Grass Valley	John Plamer, KK6XJ 530-273-0524	p/r pref.
4/02/01	Lancaster	Adrienne, WA6YEO 805/948-1865	p/r pref.
4/21/01	Long Beach	Don, 562/420-9480	p/r pref.
4/21/01	Redwood City	Al, WB6IMX 408/255-9000	w/i
4/14/01	San Pedro	Elvin, N6DYZ 310/325-2965	p/r pref.
4/15/00	Santa Rosa	Hotline - Recording, 707/579-9508	w/i ok
Hotline	Sebastopol	Recording, 707/579-9608	
4/21/01	Stockton	Mark, W6DKI 209/465-7496	w/i
4/14/01	Sunnyvale	John, KG6XF408/255-9000	w/i
Colorado			
call	All Colorado	Exam recording 303/360-7293	
Connecticut			
4/25/01	Newington	Larry, AB7GY 280/983-2163	w/i pref
Florida			
4/12/01	Ft. Myers	Leonard, KC4GOA 941/694-2505	w/i
call	St. Pete	Mark, NP3R 727/528-0071	w/i pref.
Idaho			
4/14/01	Boise	Rich Dees, W7BOI 208/888-1343	w/i pref.
4/25/01	Grangeville	Larry, AB7GY 208/983-2163	w/i pref.
4/03/01	Lewiston	KB7LTY 509/758-8374	
Illinois			
Anyday!	Burr Ridge	Deni, W9DS 630/986-0061	p/r
4/09/01	Libertyville	John, W9EM 847/223-3357	p/r pref
4/21/01	Morton	Bob, AA9MY 309/263-8620	w/i
4/14/01	Oak Forest	David, NF9N 708/226-1570	p/r pref
Maryland			
4/21/01	Laurel	John, WB3GXW 301/572-5124	p/r pref
Nevada			
4/07/01	Henderson	Tim, WA6TNW 702/872-5268	p/r pref.
New Jersey			
4/11/01	Ft. Monmouth	Mike, KC2Q 732/774-1095	w/i only
New York			
4/10/01	Bethpage	Bob, W2ILP 516/499-2214	w/i
4/01/01	Yonkers	Emily, AC2V 914/237-5589	w/i
North Carolina			
tba	Brevard	Harrison, KO4RV 704/877-4757 or 704/883-9096	
Ohio			
4/07/01	Cincinnati	Herb, WA8PBW 513/891-7556	w/i pref
4/28/01	Van Wert	Robert, KA8IAF 419/795-5763	p/r pref.
Oregon			
Call!!	Astoria	AA7OA, 503/338-3333	p/r
Tuesdays	Bend	Bill, K7ZM 541/389-6258	p/r only
4/14/01	Dallas	Robert, W7LOU, 503/623-1141	p/r
4/11/01	Eugene	Riley, W7EUD 541/345-2407	p/r pref
4/27/01	Grants Pass	Bill, WX7U 541/476-2703	p/r pref.
4/21/01	Gresham	Patsy, W7PAT 503/668-4305	w/i only
4/26/01	Klamath Falls	KC7HEX 541/883-5050	p/r
4/07/01	Lincoln City	Carl, K7EWG 541/994-3113	p/r pref.
4/11/01	Roseburg	Mel, AB 7DC 541/672-5884	p/r pref.
Pennsylvania			
4/07/01	Charleroi	Bill, W3EMV 412/751-4373	p/r
4/07/01	Erie	Norma, W3CG 814/665-9124	w/i pref.
4/05/01	Philadelphia	Dusty, ND3Q 215/482-0386	p/r pref
4/16/01	Telford	Paul, N3YSI 215/536-4659	p/r pref
Texas			
4/21/01	Austin	Jim, AB5EK 512/327-6184	w/i
4/14/01	Webster	David Fanelli, kb5pgy@clarc.org	w/i pref.

PRB-1 bill intoduced in Indiana

Indiana lawmakers will deal with an Amateur Radio antenna bill in the upcoming 112th General Assembly session. A bill has been introduced to incorporate the limited federal preemption known as PRB-1 into Indiana state law.

Senate Bill 331 would prohibit Indiana municipalities or counties from enacting ordinances, resolutions or orders that do not comply with PRB-1. The proposed law also seeks to prohibit localities from "restricting Amateur Radio antennas to less than 75 feet above ground level. It would not prohibit communities from taking action to "protect or preserve a historic or an architectural district."

In general, the PRB-1 FCC policy requires that local regulations involving the placement, screening or height of antennas based on health, safety or aesthetic considerations "must be crafted to reasonably accommodate amateur communications" and that such local regulations "represent the minimum practicable regulation to accomplish the local authority's legitimate purpose."

Senators Rose Ann Antich and Marvin D. Riegsecker are cosponsors of the proposed legislation. ARRL member Jerry Suhrheinrich, WD9EDE (wd9ede@arrl.net), has been promoting the bill from within the amateur community.

Ten states have incorporated the essence of PRB-1 into their laws. So far, only three states, Oregon, Virginia, and Wyoming, include minimum regulatory height limits in their Amateur Radio antenna laws based on PRB-1. — *ARRL Letter*

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WANTED FOR MUSEUM: Apple-1 and other pre-1980 micro-computers, also early-micro-computer journals, newsletters and advertising literature. KK4WW, P.O. Box 341, Floyd, VA 24091; 540/763-2321. 600-601

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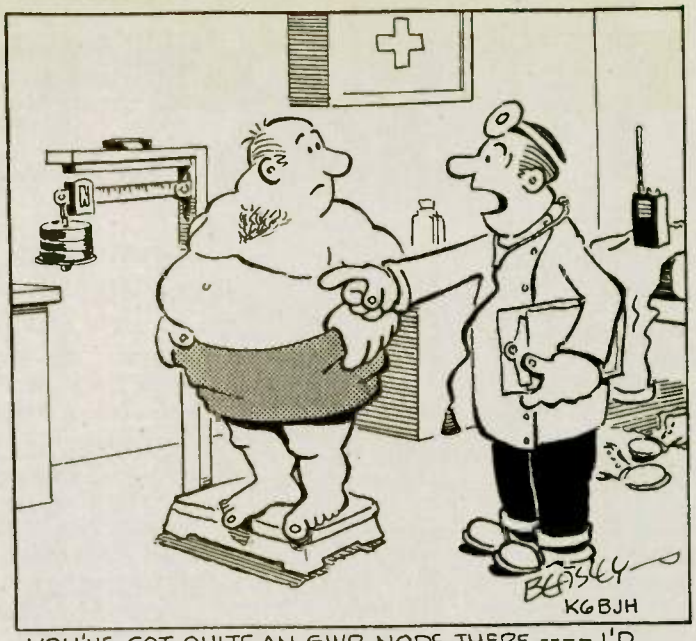

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SO-35 satellite failure

SUNSAT SO-35 has ceased operation, and ground controllers at South Africa's Stellenbosch University say SO-35 appears to be off-the-air for good. The satellite had served as a popular and easily accessible FM-mode repeater.

"Unfortunately, little hope remains after two weeks of recovery attempts," said Stellenbosch University's Johann Lochner, ZR1CBC, in a posting to the AMSAT bulletin board. "Thanks to all who shared in our fun. Your feedback and encouragement made most of it happen."

Stellenbosch University's Electronic Systems Laboratory said the last communication with SUNSAT was on 19 January at 1522 UTC. "We are certain, after having performed several tests since the last contact, that an irreversible, probably physical, failure has occurred on the satellite," the statement said. "It is therefore unlikely that we will have any further contact with SUNSAT, apart from the occasional visual sighting by telescope!"

SO-35 was launched 23 February 1999, from Vandenberg Air Force Base aboard a Delta II rocket.

Ground controllers say it's unlikely that battery failure was the cause of the shutdown. It's believed the failure resulted from multiple internal problems or possible collision with an external object resulting in major physical damage.

The SUNSAT Web site is at http://sunsat.ee.sun.ac.za. — *ARRL Letter*

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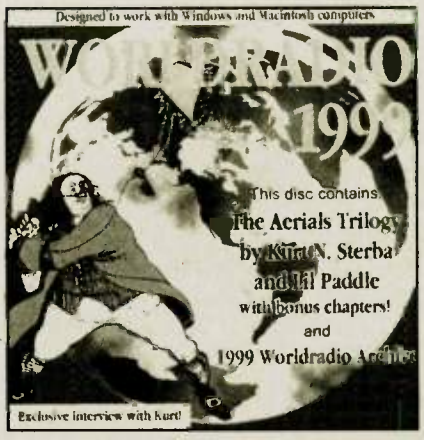

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U.S. prepares for WRC 2003

In preparation for the next World Radiocommunication Conference in 2003, the FCC's WRC-03 Advisory Committee met for the first time 30 January 2001. The FCC International Bureau's Planning and Negotiations Division has primary responsibility for guiding the FCC's WRC-03 efforts. The Advisory Committee provides an opportunity for interests outside the federal government, including the Amateur Radio Service, to develop and debate U.S. draft proposals for possible adoption by the FCC, the National Telecommunications and Information Administration and the U.S. Department of State.

WRC-03 will deal with wide-ranging telecommunications issues, including IMT-2000 or so-called "third-generation" or "3G" cellular telephone devices, fixed services, mobile and fixed-satellite issues, HF broadcasting, satellite broadcasting, and regulatory matters.

Amateur Radio-related issues on the WRC-03 agenda include the revision of Article S25 of the international radio regulations, the basic rules for the amateur and amateur satellite services. This includes the issue of whether to retain the treaty requirement to demonstrate Morse code proficiency for access to amateur bands below 30 MHz.

The conference will also review the terms and definitions of Article S1 to the extent required as a consequence of any changes made in Article S25. Among other things, Article S1 contains the definition of the amateur and amateur satellite services. WRC-03 participants are also expected to review the provisions of Article S19 concerning the formation of callsigns in the amateur services.

Among the most important issues to Hams at WRC-03 will be consideration of realignment of amateur and broadcasting bands around 7 MHz on a worldwide basis. The long-standing problem was identified in a 1992 World Administrative Radio Conference recommendation that called for realignment at a future meeting and it could happen in 2003. As previously reported, the International Amateur Radio Union is committed to supporting what it calls a harmonized worldwide 300-kHz allocation in the vicinity of 7 MHz.

An examination of the adequacy of HF broadcasting allocations from approximately 4 to 10 MHz also is on the agenda. Conference participants also will consider abandoning an earlier commitment for HF broadcasters to shift from double to single-sideband AM modulation and move instead to digital modulation.

Among other issues that could affect Amateur Radio, WRC-03 will consider allocations for non-geostationary, non-voice Little Leo satellites below 1 GHz, as well as spectrum above 1 GHz for feeder links. In addition, the conference will consider an Earth Exploration-Satellite Service in the 420 to 470-MHz band. — *ARRL, Newsline*

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(OH2AQ), *425 DX News* (I1JQJ,), *The OPDX Bulletin* (KB8NW), DX-News (NJDXA), The Low Band Monitor (KØCS), *The Daily DX* (W3UR), and QRZ DX (N4AA).

During the month of January there were only two entries in my logbook — far short of last year. Last year I began with a bang and worked DXCC by 12 February. I'm in a slump! Hope you aren't in the slump. 73 de John N6JM.

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

Flying the Goodyear blimp

What if your dream was to be a Ham in the Goodyear blimp and it suddenly came true? That's what happened to three Soothern California amateurs.

Jack Sliva, KE6TTG, said three members of the Catalina Amateur Repeater Association recently got to fly the Goodyear blimp. Yes we said fly it, not just fly in it.

According to Jack, he, along with Bob Axel, KE6CGO, and Cami Atlas, KE6YDL, were the Hams who got to go for the ride. Jack is a pilot and says that he was about to head out the door for Fullerton Airport when the phone rang. On the other end of the line was his friend Tom Matus. Matus is the Captain of the Goodyear blimp *City of Carson*.

KE6CGO said he had previously asked Captain Matus if he could get a ride someday. Well, apparently this was the day. You see, you cannot buy rides on the blimp anymore. It's an invitation only event.

The three met Captain Matus at the Goodyear airship base in Carson. The blimp arrived with the previous crew about 20 minutes later. After leveling off, each Ham had the opportunity to fly for about half an hour. Those of you interested in reading the rest of the story and seeing the pictures should go to the web site: www.arnewsline.org and take the link to the Catalina Amateur Repeater Association. — *Newsline*

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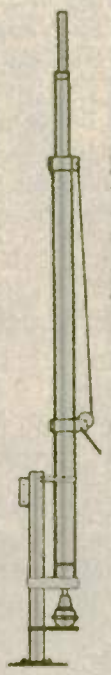

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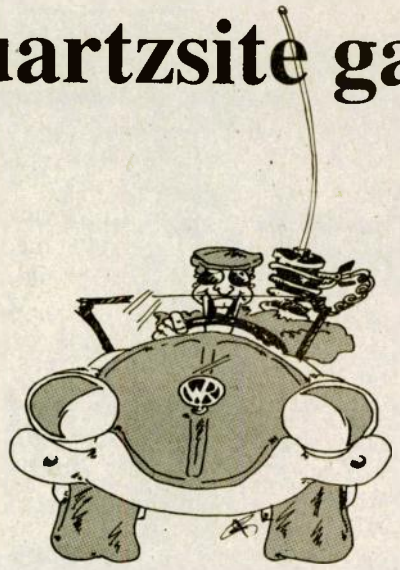
Les Cobb, W6TEE

The Quartzsite gathering

There is nothing like a 1,400 mile round trip to bring you closer to your HF mobile rig! I enjoyed the company of friends while driving to and from Quartzsite, Arizona on a few 40, 20, and 75-meter nets, in that order. I told you in advance about Quartzsite and the Ham activities there in detail in the February column. I enjoyed camping with the Sam's Radio Hams in town for a few days, followed by a couple of days with Hams at the Quartzsite Campout at Milepost 99, south of town. I've gained many Ham friends there the past three years. I've also bought one carefully used HF mobile antenna at the Ham "Yard Sale" each year. I haven't decided if they are useful, or collectibles. I guess that they are useful since collectibles cost a lot more. I enjoyed the open-air talks this year at MP99 on APRS, by Bob Hart, WA7HRA, and on Winlink/Airmail by Cap Latimer, WB6ZDT, two Quartzsite Campout regulars. Winlink is a very useful HF e-mail gateway system, and Airmail is the software used. Before I got there, VE testing of people from the area and the campout was again led by Bob and Laura Bingham, K9WMP and K9BZY. Several new Hams and upgrades resulted.



Bill Kurtti, WCØM, put effort into an antenna range for the 75-meter Mobile Antenna Shootout. But possibly due to what passes for rain there a couple of days before, sending some people home, serious contestants were lacking. We had fun with an Outbacker Jr. on top of an added 7-foot bottom mast section. This violated the contest height restriction, but tied Bill's large reference hi-Q center-load in field strength. If you are wondering where we got a 7-foot mast section, Frank Clements, W6GZI, made it from stainless so that his mobile antenna loading coil would clear the back of his motorhome.

The next Quartzsite (Ham) Campout will be held around 17-24 January 2002. I probably have the dates wrong, but I will let you know as the time gets closer.

More on noise

It can be tiring to hear about noise problems all the time, but the next two messages and one letter were interesting and different. Gordon Lange, N7GCA, wrote, "I have a new Toyota Prius, the new electric hybrid with about 300 volts ac and dc plus 12 v running around in it!! Have you heard of any noise suppression done on them? Any words of wisdom will be greatly appreciated." No, I haven't heard of noise suppression, or anything yet. Has anyone else?

Cameron Magnon, W4UEA, previously reported computer noise in his 1999 Ford F-250 that was a problem on the HF bands. He now reports removing much of the noise in an interesting way. "My radar detector was going off all the time, but only on the 'Laser' position. It was even going off with the truck sitting in my driveway! After experimentation, I stuck the ignition key into the keyhole for disabling the passenger side airbag. Turned that circuit completely off, then back on which resets the circuitry for the airbag, and all the noise had gone away, or at least 90% of it. Pass it along if you hear of similar problems with Ford trucks, I guess any model since 1997."

John Lambert, KC5MH, writes, "I had to replace a tire on my 1994 Buick about 18 months ago. Since then I have had hash noise on the AM radio band. Local stations can override the noise but several stations within 50 miles, which I enjoy listening to, are sometimes barely audible. (I do not have Ham radio in my car.) Since the hash noise goes away when I lightly press the brake pedal I assume it is static build up from the tire. I

understand modern tires are supposed to be conductive to eliminate this problem but maybe not. I do remember that back in the late 1950s there was a product which could be blown in the tire to make them conductive to help stop this problem. I have not been able to find anything like this product today. I wonder if anyone knows of an anti-static product for tires or if powdered graphite lubricant could be used without harming the tire."

As I recall the static noise that we used to get would not occur until the car reached a certain speed, then it would be there at a deafening level all at once. As you slowed down, it would go away just as abruptly, but at a different speed. I remember the tire powder, but I never saw it used. The thing that did work for us was a conducting rubber strap that had a grommet in one end to bolt it to the frame. Auto parts stores had them then. It touched the ground only when the car was completely stopped. The rest of the time, it hung at various angles, but it worked 100%! Before they had conducting rubber straps, I remember the gasoline tankers dragging a chain loop with a piece of pipe rolling on the ground to discharge static! You can always try that! HI! There was also wheel bearing noise, for which you could buy those little springs to go in the grease caps. I haven't seen any anti-static product for tires recently. I'm no expert, but my guess is that powdered graphite, being pure carbon, would cause no harm to your tire. But the next tire man to put his hand in the tire would have some choice words! I don't know if it would help your noise, though.

Rick Sohl, KK5RIC, wrote a very interesting message about his HF mobiling, but the points that I thought would be of most interest were his antenna and another net. Rick is on his fourth Chevy Suburban and found that heavy 4-wheel drive operation produced too much vibration for a screwdriver antenna. He uses a Henry Allen WB5THB heavy duty 3" electric drill antenna. Regarding our ongoing collecting of mobile-friendly nets, Rick says, "We do not have an official net, but we are there every day and many nights on 7195 kHz here in the South Central U.S., mostly a group of HF mobiles, with a few fixed stations to relay for us, and an all day rag chew."

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. More at http://home.pacbell.net/lcobb/.

Nancy Kott, WZ8C

Boxes and boxes of keys

One of the joys of Amateur Radio is making friends with local Hams who have similar interests. I am fortunate enough to know a local Ham who is a serious collector of telegraphic equipment. We have become close friends over the years, and he has been my "Elmer", sharing his knowledge of keys and telegraph history. He has restored the telegraph office at a local historical village, and hosted several meetings of the local chapter of the Morse Telegraph Club, of which we both are members.

After having heart bypass surgery, he decided that the time had come to start dispersing his telegraphic equipment collection. I had purchased a few keys from him over the last couple years as he slowly whittled down his collection. But, a few weeks ago he had a stroke, and he decided to rid himself of the collection while he could still direct the task. He called and asked me to be the one to carry on the collection. Although I am not happy about the circumstances, I am excited at the prospect of identifying these items, finding and documenting their history as much as possible, and adding them to my collection. Since I want to pay him a fair price and to sell the duplicates, I also need to determine what the items are worth. It is going to be quite a project: the collection is extensive and includes telegraph and telephone relays, military telegraph items, numerous bugs, and iambic and straight keys.

Since Positively CW readers may want to identify a key or add to their collection, I decided to write about the process as I sort through all the items and determine the best way to take care of these wonderful instruments. I know there are are some very knowledgeable readers out there who may give me some welcomed advice or help to identify any "mystery keys."

It took three trips to transfer the collection to my house. I had boxes of keys everywhere. I have never seen so much telegraph equipment in one place! For a while, I was overwhelmed by the boxes piled high with keys, and thinking "how in the world am I going to sort through all this stuff?" If only keys could talk; imagine the stories of the messages they have sent, the Hams and the telegraph operators who owned them! They are entrusted to me now, and I need to consider the best ways to preserve them and decide which ones I should keep and which I should sell for my friend.

How to start such a daunting task! Emptying the boxes seemed like a good place to start. I cleared a spot in the basement and made tables from saw horses and sheets of plywood. I separated the keys by type, putting the relays together in one spot and military equipment in another. I think the military equipment is going to be the easiest to identify because it is all clearly marked and in very good condition. The relays are going to be more difficult it identify because I know little about the manufacturing history of relays. The keys may be a challenge, too. Some of them are labeled with tags; but most of them are not, and many appear to be unmarked.

I want to document the items and their history as much as possible. After considering different methods, I decided to keep it simple and to label each piece with a numbered tag. This number would correspond to a page in a notebook where I could write down my findings about each piece. Tags with strings, similar to price tags, are available at local office supply stores. I may change to a file card system but I am starting out with a notebook.

My first instinct was to gather up some Brasso, Naval Jelly, steel wool and WD-40 and go to town cleaning up these keys! They had been stored for a long time and could use a good cleaning. But, I took a deep breath and remembered the cardinal rule of collecting: First, Do No Harm. Watching the TV program Antique Roadshow paid off. Often the antiques lost their value or collectible appeal because someone had cleaned off the natural occuring patina, or removed the original finish. I did not want to ruin a telegraph item by polishing off a number or callsign that may be lightly engraved or written on the surface.

I decided that dusting them with a Q-tip and a soft cloth would be the most conservative method. While

dusting, I can inspect them for missing parts, cracks or operational problems and setting aside the less-than-perfect ones for now. Some have major parts missing; my friend used these as "donors" for pieces he acquired that were restorable but had missing parts.

There are also quite a few duplicates, especially among the relays and hand keys. My friend asked me to sell the duplicates on eBay for him. I want to do that as soon as possible, so I will probably start my research and documentation on the duplicates.

Quite a few of the keys have callsigns of previous owners engraved on them. My friend added his callsign under theirs, and on those that I keep, I will be proud to etch my callsign under his. We are the caretakers of the history represented by our keys. Let's do our part to document and preserve them for the next generation of CW operators. And equally important, let us do our part to encourage and foster the new CW folks, so there will be a next generation to carry on. I hope to write about the various keys in the collection in future Postively CW columns. I will also keep you apprized of my progress with the collection and share the resources and web sites that I find particularly helpful.

Spring Sprint

On another note, the FISTS Spring Sprint is coming on the second Saturday in May. Everyone is welcome to participate, particularly new operators who may not have much contest experience. The FISTS Sprints are low-pressure short events, only four hours long, from 1700Z to 2100Z. The exchange is first name, RST, U.S. state/Canadian province/DXCC country, and FISTS number. If you don't have a FISTS number, substitute your power output. Jump in and get your feet wet in contesting! FISTS are about the friendliest group of operators you will find on the air and they will be glad to have you participating in the Sprint. For more information, go to the web page at www.fists.org and click on the Sprint Information link.

Dayton Hamvention

If you attend the Dayton Hamvention in May, after you stop by the ***Worldradio*** booth, say hello to me at the FISTS booth, I hope you will make your way to the outdoor vendor area and check out the museum of telegraph keys set up by Tom Perera, W1TP. He will be in space 2555. Tom will be exhibiting over 500 keys dating from before the Civil War to the present. He will be trading as well as offering free appraisals and information about keys to people who stop by. He will also be showing some Enigma cypher machines. For more information go to the web page <http://www.w1tp.com>. The FISTS booth is located in space #100 on the ramp that connects the cafeteria area with the main arena. I hope to see you there!

— Nancy Kott, WZ8C, our gracious Positively CW columnist can be reached by mail to: P.O. Box 47, Hadley, MI 48440-0047, or by sending e-mail to: nancy@tir.com.

Worldradio — world-class news organization

In an effort to supplement the world's news resources, the management and publishers of ***Worldradio*** Magazine will be making some improvements within and expanding the organization.

In the television medium, CNN and Ted Turner have long been recognized as the leaders for up-to-the-minute news. There is no such organization in the broadcast radio news organizations.

In the very near future, ***Worldradio*** will be hiring an additional 14,823 reporters and field personnel and will purchase 388 fully-equipped satellite trucks. The new hires and the trucks will be stationed at offices in every country of the world.

In order to finance this massive venture, the cost of a subscription to ***Worldradio*** magazine will be increased slightly. The exact figure was not available at press time, but management has said, "Subscriptions will be somewhere around $815,422.79 per year."

Chuck Imsande, W6YLJ

Y2K challenge wrap-up

The Challenges held during the year 2000 proved to be a good success for 10-10 and the membership. The Y2K Challenge to make 2,000 contacts with members and non-members resulted in 78 logs being submitted. The Y2K Challenge to contact 2,000 10-10 members only resulted in seven logs. A great job by all of those who participated in the Challenge. To those who tried, and did not quite make the total requirement of 2,000 contacts, thanks for your effort. Everyone kept the band occupied and activity at a high level, and that was the intent of these "fun" challenges. A complete listing of those who submitted their logs will be published in the April issue of the 10-10 International News. A big thank you to both Doris, N3TGB #68129, and Al, NN1J #41728, who were the volunteers that collected all of the logs and did the log checking. The other Challenge for the membership for the year 2000 was to enlist 2,000 new members. This also created a great deal of activity on the band and especially during QSO parties to help non-members obtain information on joining and request their call and number be listed on new member applications. Although the challenge of 2,000 new members fell short of the goal, a total of 1,079 new members were actually signed up during the year, and the highest 10-10 number issued as of 31 December 2000 was 72257. Overall, this was not a bad effort based on previous years. A big thank you to all members who encouraged non-members to list them on their applications. With 1,079 new members in a year, it proves that 10-10 is one of the most popular and best organizations in Amateur Radio worldwide. The following is a listing of the top ten members whose call and 10-10 numbers were listed the most times on new member applications during the year 2000:

No.	Tmes listed	Call	10-10 #
1	139	WB4FBS	48461
2	133	KCØCMZ	70882
3	83	N5MT	24949
4	77	VP2VF	63440
4	77	KC7DH	52099
5	76	N6OPR	45715
6	67	K5GAY	11825
7	65	K7XN	41483
8	63	DK3DK	58990
9	56	W6YLJ	19636
10	55	DL8YBM	36109

A special thanks to Jim Hardy, K4HAV #17605, who provided a module to his WIN1010 program that allowed the entry of all of the new member applications, which generated a listing of all of the entries and listed the top winners. Also a big thank you to my XYL, Esther, KB6HW #23331, who input all of the new member applications which required almost 60,000 key strokes. 10-10 does require a lot of volunteer time from a lot of members, many who work many hours to keep the organization running smoothly. There are many volunteers who work in the background and do not receive the credit due them for the hours they devote. A thank you goes to them all!

"Work the Numbers" Challenge for 2001

Here is new challenge for the year 2001. Just make a contact with as many of the 10-10 numbers that 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.

Of the 1,700 numbers in the block of 28000 through 29700, there are 153 known SK's making a maximum of 1,513 possible contacts. There may be a few additional SK's in the block that are unknown to 10-10, so the possible number of good contacts may be a few less than 1,513. Log requirements are simple too. Just log the 10-10 number, Call, Name State (or Country) and Date of Contact in that order. Computer logs or hand written logs are acceptable. Jim Hardy, K4HAV #17605, is providing a module to log and print out the "Work the Numbers" Challenge. If you use WIN1010, the 10-10 logging program, check Jim's web site for a download of this new file. Check at: http://hds.net/win1010dl.htm. For more information on the WIN1010 logging and record keeping program, Jim can be reached at: Jim Hardy, K4HAV #17605, P.O. Box 7304, Tifton, GA 31793.

An attractive mounted certificate will be awarded to the first, second and third place winners. Good luck and have fun looking for the special numbers good for the "Work the Numbers" Challenge.

10-10 Convention

Plans for the 8th Biennial 10-10 Convention in Worcester, MA 12-14

July 2001 are being finalized. A great program of activities have 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 is scheduled to tour the area, which is rich in historic significance. Plan to vacation in this historic area and attend the 10-10 convention. You will enjoy the area and above all the convention. A good time and a great program is waiting for you. For more information, contact Tom Henderson, K4CIH #33233, 4901 15th Place E., Tuscaloosa, AL 35404-4522, for a complete convention package and pre-registration form.

10-10 website

The 10-10 website at www.ten-ten.org is continuously being updated with new information. Almost any information about 10-10 is available at the website. Check it out.

New 10-10 Pin, Patch and Decal

A new 10-10 Pin, Patch and Decal are now available for purchase. All proceeds from sale of these items will go to the 10-10 Scholarship Fund. For a colorful flyer on these new items, an SASE to Tom Henderson, address above, will get you a color picture of these attractive 10-10 items including prices. Scholarship Fund

10-10 again this year will award five $1,000.00 Scholarships to licensed radio amateurs who plan to pursue a full-time course of studies beyond high school, and are enrolled or have been accepted for enrollment at an accredited university, college or technical school. The Foundation For Amateur Radio, Inc. (FAR), administers a total of sixty-seven (67) scholarships for various Amateur Radio clubs and organizations including the five 10-10 scholarship awards. Additional information and an application form may be requested by letter or QSL card, postmarked prior to 30 April 2001, from: FAR Scholarships, P.O. Box 831, Riverdale, MD 20738. The five 10-10 Scholarships are funded primarily from donations from members and non-members. Your donation, should you care to participate, should be sent to: Morrie Goldman, W6EHM #4189, 21518 Marjorie Ave., Torrance, CA 90503-6418. No donation is too small to help in this worthwhile cause to aid our young Hams obtain their education. All donations will receive a certificate naming you as a 10-10 Scholarship Volunteer for the year 2001. Your help is needed to continue these 10-10 scholarships. Please send your donation today.

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 9 x 12 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 3-years) to: 10-10 International Net, Inc., Attention: Dues Renewal, 643 N. 98th Street - PMB #142, 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 dues 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 Vice President, 20815 Desert Sands Drive, Sun City AZ 85375-5443 or e-mail at: w6ylj@arrl.net

ARRL logo license plates canceled

An arrangement between the Commonwealth of Virginia and the American Radio Relay League for ARRL log license plates has been canceled due to a lack of interest by League members in obtaining these vehicle tags.

The League says that the agreement would have made such plates available to ARRL members living in Virginia, but there was a proviso. Virginia required at least 350 orders before it would begin manufacturing the special plates. Unfortunately the minimum number was never attained. As a result, refund checks were sent the week of 22 January to those who had applied. *— ARRL, Newsline*

Jerry Wellman, W7SAR

Outfitting a mobile response vehicle

Recently I received a call from a group in the Midwest building a mobile communications trailer. They were excited because they had obtained the trailer, had spent many hours fixing it all up, and were now contemplating the purchase of an expensive, frequency-agile transmitter. Their question was simply, "what do you think of the plan?" My response was a question: "Who are you going to communicate with and what is your group's purpose?" I then asked: "What is your budget?" (Not to mention what kind of antenna they would need.)

There was a chuckle on the other end of the line as they realized what I was causing them to consider. On the surface, it makes some logical sense to have radio capability to cover a variety of frequencies — but that's a "frosting" on the cake radio. It's not a wise choice for your first (or even second) radio until you've got your routine bases covered.

A mobile communications facility is a great project for any Amateur Radio group to consider. It allows you to share a common endeavor and work as a team to both improve your capabilities and to enhance your value to those agencies you serve. It shouldn't be a one-person project, but one where many can assist and all feel comfortable offering suggestions and then pitching in to make it a reality. Often the first discussions concern funding and what radios to purchase with often limited funds. It's enticing to get one primary radio that covers everything, but it's impractical.

If funding is not a concern, this discussion doesn't matter. If you're like most groups, you have limited funds and must make the best choices. Let's assume this is an Amateur Radio group project. This implies that our first goal is to ensure we have Amateur Radio communications. It may seem obvious, but some groups have the philosophy that "someone" will show up with an Amateur Radio to use, so why worry about having one in the trailer all the time. Most of the time, this works well until one critical event when the mysterious "someone" isn't there.

In considering what type of amateur gear you need, simply ask where you operate most of the time when you respond. It's logical to include 2-meter VHF and 440 MHz UHF as these are perhaps your primary modes of use. A third priority is possibly a 2-meter packet rig. My suggestion is that you don't combine the UHF/VHF into a single radio but have two different radios dedicated to each band. It's great to have state-of-the-art radios, but when you need to use both bands at the same time, it gets difficult. My advice is always "simplicity," and I prefer a single-band unit with just the basics: it covers the whole band (UHF or VHF), has subaudible tone capability, has a DTMF pad, has separate volume and squelch controls, has a few memories, and is easy to get on the air by an inexperienced operator.

While there are no "best" types of radio, usually an older single-band radio is your best choice as they're simpler to use and can be found at inexpensive prices. You'll also want to consider whether you need several of each band. As an example, our local group uses VHF for tactical and resource nets and then uses UHF for EOC-to-EOC coordination. In this case, a minimum of two VHF radios would be needed. A dual-band radio would be one of those "frosting" radios you could have available to cover other needs (or as a back-up to the primary radios).

Once you have covered your own communication needs, you can then consider the interface radios for agency coordination. In many situations, once you have proven your worth to an agency, you might be able to have them provide the radio for your facility. Locally that has been the case and we've had good luck obtaining not only the radios, but technical assistance (i.e. programming) as well.

The final consideration would be what I call "fringe" radios. These include Amateur Radio HF-SSB, marine, aviation, and other public safety channels — basically services that would be "nice" to have, but not usually necessary to your normal response needs. Another consideration would be for Citizens Band, General Mobile Radio Service, Family Radio Service, and Multiple Use Radio Service. These last four allow you to contact the "general public" and may assist you in times you need to integrate groups such as Boy Scouts or CERT volunteers into your radio network.

I've found that a public address system has been extremely helpful and I like a plethora of white boards as well. Avoid things like flashing lights and sirens as they become toys and often irritate other agencies, not to mention have the potential to interfere or distract other responders. It's generally OK to include a single amber light to your facility if you're determined to

have some kind of "emergency" light and I'd encourage you to get a good quality strobe or revolving light with good RF suppression to minimize radio interference.

By the way, it's always good to expand your Amateur Radio capability and include 220 MHz, 6 Meters, 1.2 GHz, 10 Meters, RTTY, ATV, APRS, PSK-31, etc. It's nice to have an uncommon frequency perhaps to coordinate between an on-scene facility with an EOC or home station net control. I usually assign such frequencies a discrete designator and then can simply ask the operator to "switch to Charlie Seven." That, by advance coordination, could indicate that we'd visit on 52.525 MHz simplex and allow an easy way to use a somewhat private frequency.

No matter what you finally come up with in your mobile facility, you'll need a variety of antennas to support your gear. I like to have a common NMO mount for all my antennas and then have different types I can use depending on the situation. If I'm right next to an agency's command post, I would use an antenna with no gain to limit the cross-channel interference (as well as using very low power). If I need a little better antenna, I've got several with higher gain and then have a couple of yagi antennas with portable masts for those times I need to work out of a canyon or other remote area.

(As a suggestion, put a couple of chassis-mount SO-259 connectors on the outside of your trailer with the wire and PL-259 on the inside. You can buy some weather caps to protect them from the elements, but having them in place allows you to hook radios to antennas without having to string coax out through the door and then have the door mangle the coax or have people tripping on it all day. When I set up my portable mast and yagi, I just connect the antenna to the external SO-259 which has been similarly connected to the appropriate radio inside.)

With some advance planning you can minimize interference among your radios if you carefully consider both output power and antenna type and placement. Avoid having "most use" high-power radios that have no way to limit power output. If they're commercial type radios, program the same frequency in twice but at different power output levels. Using a 150-watts when you only need five will cause you a lot of RF interference heartburn.

One final comment as we consider a mobile facility — limit how many people it will comfortably seat! When I built my own comm trailer, I wanted it to be comfortable and meet my own needs. I failed to consider that having a nice, warm, comfy place would lure others to crowd inside and I didn't have the heart to shoo them out. It's amazing how many people will want to come in to "use your stove," get a drink, use the sink, or "just sit for a minute," or stop in to "watch." If I had it to do over (and I might this summer) I would take out the extra seating and increase the size of my operating table. Wellman's law of chairs: Available seating will always be occupied.

Networking the Station

Let's face it, computers are here to stay. (Duh!) Whether you've noticed it or not, there's not much need or use for the older machines such as the Radio Shack Model 100, the 386 — well, anything older than a Pentium. I've kept a few of the older computers around for packet use, but find them limited because my house is networked and my printers reside on the network. I've just finished putting CAT-5 network cable in my own comm trailer, adding a small hub, and an outside RJ-45 jack so I can link into other networks.

I've also added a long CAT-5 jumper (with RJ-45 jacks) to my collection of cables so I can add my trailer to an existing network if one is available. Being a Novell junkie, my home runs a Netware 4.1 system but I've left all the MicroSoft protocols in place on my computers for ease of linking into other systems. Novell and Microsoft remain the leaders in networking popularity so they're good choices to become familiar with. You can find the "client" software for Novell on their web site for free (www.novell.com) and it's a good idea to have it in place should you need to link your computer to a Netware system.

Many years ago I found some old "Arcnet" cards cheap and used software called "Little Big Lan" to link my home computers. At that time, network cards were pretty expensive — but not today. I buy network CAT-5 cable at a freight damaged outlet for $20-$30 a box (1,000 feet), I've found 8-port hubs for $25 or less, and network cards in thrift stores for a dollar. With a little searching, you can put a network in

your home for under $100 and all the software is generally bundled in with your operating system.

Recently I found a "Shiva" box and some print servers on an on-line auction site for under $15. The print servers connect any parallel-port printer to a network and the "Shiva" box allows incoming modem calls and connectivity to my home network. I use PCAnywhere and CoSession software to allow remote access to my home computers so I can essentially call my home from a laptop and "take over" any of my home computers. This allows me to look at the packet machines, check security status, and even control appliances by remote link.

As my comm trailer is networked into the home system, I can use the network printer from the trailer and also "take over" remote computers on the network. I'll admit that it may be somewhat of technological toy overkill, but it's fun and it's the future. I can see some great value to being able to connect several command facilities via network on-scene. In fact I would predict it's almost necessary now.

Because of the popularity and ease of computer networking, I'd encourage you to consider adding some basic networking to your radio skills and do some fundamental training at your next group meeting. You should have some basic skills at how to configure your computer's network client and be able to connect and share files between computers on a network. It's not necessary to be able to remotely control another computer, but sharing files and printers is a must. Think of how slick it would be to pull up to an on-scene command post and route your priority packet messages right to the command post printer in real time. I can conceive of a packet setup that would allow two EOCs to pass messages automatically as one site simply dumps the raw text files into a spooled folder and they're sent via Amateur Radio packet to the other site and printed automatically. It boggles the mind.

We're currently testing (for work) a computer PCMCIA card that radio-links the laptop computer full-time to the Internet. Think how "cool" that would be to have on your radio network and then pass local packet traffic automatically from the scene. You don't need a 700 MHz computer to do all of this, in fact a bottom of the line Pentium is about the minimum and I'm finding them in thrift stores at cheap prices. I'm burning all my "standard" software on CDs so I can quick-load configurations to other computers or use in case of a disk crash.

Hang on to your hats folks, the technology ride continues at high speed! I'd love to hear how you're integrating technology into Amateur Radio and public servcie!

Until next month, best wishes from Salt Lake City!

— *Jerry Wellman, W7SAR, our fantastic Search and Rescue columnist can be reached by mail sent to: P.O. Box 11445, Salt Lake City, UT 84147, or by sending e-mail to: jw@desnews,com.*

FCC queries wireless Internet provider about interference to Hams

The FCC wrote Darwin Networks Inc. of Dallas, Tesas, on 08 February 2001, regarding complaints of harmful interference to Amateur TV on 2.4 GHz that's said to be a result of the company's deployment of Part 15 devices in an apartment complex.

The FCC said Darwin Networks' Part 15 devices at the Post Townlake Village property in Dallas apparently were installed in the apartment complex to provide Internet service using wireless 2.4 GHz nodes from Cisco Inc.

In the letter, FCC Special Counsel for Amateur Radio Enforcement Riley Hollingsworth noted that operators of Part 15 devices are required to cease operation should harmful interference occur to authorized (ie, licensed) spectrum users. "Darwin Networks is obligated under Commission rules to locate the source of interference caused by its equipment and make necessary corrections within a reasonable time," he said.

According to Hollingsworth, Darwin had written the unidentified complainant stating that its devices were operating under Part 18 Industrial, Scientific and Medical rules, which would not obligate the company to resolve amateur complaints. But Hollingsworth said it appears that Darwin is not operating Part 18 ISM devices but Part 15 devices that are not covered by the same sort of exception. — *ARRL Letter*

Visit Your Local RADIO CLUB

ARIZONA

Arizona Repeater Association, Inc. Operates 24 VHF-UHF rptrs. 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. 5/01

CALIFORNIA

Amador County Amateur Radio Club. P.O. Box 1094, Pine Grove, CA 95665. Meets 1st Thurs./monthly, 7:30 p.m., Jackson Sr. Cntr., 229 New York Ranch Rd., Jackson, CA. Info: 146.835(-). 5/01

Coachella Valley ARC. Box 11092, Palm Desert, CA 92255-1092. Meets 2nd Wed./monthly, 6:30 p.m., Portola Com. Cntr., 45480 Portola, Palm Desert. Info: Bill Dews, (760) 346-8611. Net Thurs. 7 p.m. 146.025(+) PL 107.2. 5/01

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. cafetorium, 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., Albany Sr. Cntr., 846 Masonic Ave., Albany, CA. Info: S. Primbsch, (510) 741-8227. 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, Placer- ville. Web: hhp://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 Empire Amateur Radio Society, (VEC). P.O. Box 508, Chico, CA 95927. Club call W6RHC, rptr. 146.85(-). Meets: 3rd Fri./monthly, 7:30 p.m. at 345 Cherry St. (Library Rm.), Chico. 5/01

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

Motorcycling Amateur Radio Club. Meets 2nd Sat./monthly, 8 a.m., Lake View Cafe, 2099 E. Orangethorpe, Placentia, CA, 91 Fwy/Lakeview. Info: R. Davis, KD6FHN, (949) 551-1036 or (949) 551-2010. 5/01

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

North Hills Radio Club. Meets 2nd Tue./monthly, 7:30 p.m., SMUD Bldg., Don Julio & Elkhorn, Sacramento, CA. Nets 8 p.m. Tue., (except 2nd Tue.) & Thur., 145.190(-) PL 162.2 Hz. Info: B. Griffin, (916) 729-7117. E-mail: dixdood@aol.com or nhrc@k6is.org 4/01

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., SMUD Bldg., Don Julio at Elkhorn, 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, KC6EO, (916) 722-9358 or L. Ballinger, WA6EQQ, (916) 393-4775. 4/01

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 94.8. 6/01

Sonoma County Radio Amateur, Inc. W6LFJ, 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 ea. Tues. 7 p.m., W^SON. Rptr. 146.73)-) PL 88.5. www.cds1.net/scra 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. Buillding, 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. Jim Bullington, (707) 446-4347 8/01

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: BARC5O@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

Port St. Lucie ARA. 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. 5/01

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 Restaurant. 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 additional 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 rpts., 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 Springinsguth Roads. (847) 798-5248. http://members.aol.com/sarcradio 11/01

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 Hearthstone Dr., Baton Rouge, LA. Net: 146.79MHz, 8:30 p.m. Sun. www.brac.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(-). 5/01

Hiawatha Amateur Radio Assoc. of Marquette Co. P.O. Box 1183, Marquette, MI 49855. Meets 1st Thurs./monthly, 7:30 p.m., 108 Stratofort, K.I. Sawyer AFB, MI. For info contact: Richard Schwenke, N8GBA, (906) 249-3837. 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.wØsv.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: nøpr@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

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 in 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. cornor of Tucahoe 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

NORTH CAROLINA

Stanly County Amateur Radio Club. Stanfield, NC. Meets 4th Thurs./monthly, 7 p.m. Talk-in 146.985(-) for location. Wed. net 9 p.m. 146.985(-). Fri. tech net 9 p.m. 147.390(+). Ph: (704) 888-4815. www.mdsmm.com/scarc/ 5/01

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

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

Hoodview ARC. P.O. Box 20624, Portland, OR 97220. Meets 3rd Thurs./monthly, 7:30 p.m., Mt. Hood Com. College/Gresham, Rm 1001. Rptrs: 147.28(+), 443.475(+5) (tone 167.9) http://www.wb7qiw.org 5/01

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

Mercer County ARC W3LIF P.O. Box 996, Sharon PA 16146 Meets 4th Tue./monthly, 7:30 p.m., Shenango Valley Med. Ctr, Farrell, PA. Net, Thurs. 9 p.m. on 145.35(-) W3LIF, Digi. 145.Ø5. 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/wa4nvi/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., Canteberry Woods Comm. Cntr.(corner of Springwoods & Chaucer), Lake Rige, VA. Talk-in 147.24(+). For info: http://www.pwcweb.com/wwi/ 7/01

WASHINGTON

The Mike & Key Amateur Radio Club. Meets 3rd Sat./monthly, 10 a.m., Salvation Army Renton HQ., 720 Tobin St., Renton, WA. Talk-in on 146.82(-) (103.5 CTCSS) rptr. Doors open 9:30 a.m. 5/01

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, 7p.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 HYW 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

Recruiting? It's about location and incentives!

Jim Hammock, KIØDN

Last time we covered recruiting new people into Amateur Radio. So now we move on to helping them earn their licenses, right? Yes and no. We do help them earn their licenses, but we don't stop recruiting. If you work it right, a class can be an excellent recruiting tool. More on that later.

Find the right spot

If you want to have a successful business, location is one of the top factors. Location can also make or break your class. Look for a site that can be found with a minimum of difficulty. If you can find a site within one or two turns from an intersection on a major highway you are in great shape. Parking is also a big concern; the lot should be adequate, close and well lit.

The classroom should be just that, a classroom. In an ideal world the classroom should be able to accommodate to any instructional technique. If not, insure you can adapt the instruction to the classroom before you commit to the room. The classroom should be well lit, have good acoustics, have a flexible set up, and be able to support whatever audio visual aids you will be using.

The cost to use a classroom may be an issue. Ideally you will find a class for free or at minimal cost. Check with schools, churches, city hall, the Red Cross and Salvation Army, VFW and American Legion Posts. This will help keep the class cost down.

Timing is important

Deciding when to hold the classes is also a big factor in success. You will probably be somewhat limited by the availability of the classroom. Aside from that think about the students and what might interfere with class. Monday nights don't seem to work well during football season. In many areas Wednesday nights are a big church night. Weekends might be good or bad, think about what people in your area do at the time of year the class is being held. If you have youth attending, a class that ends at 9:30 p.m. or later on a school night will not be popular with parents.

Sometimes the best classroom is outdoors! Here Gordon West, WB6NOA, shows a Handi-Ham Radio Camp Class a variety of electronic components. Matt Arthur, KAØPQW, looks on.

Price it right

The classes need to be affordable, especially for youth. Although Ham radio can be an expensive hobby, it shouldn't cost an arm and a leg before you even get started. Our local instructor group charges $10 for the class. You might call it 'earnest' money because people with an investment, however small, are more likely to stick with it. Our group owns our books and loans them for free with a deposit of $20. This is another means to keep their interest through the more difficult portions.

Okay, what about using the class as a recruiting tool? Our group holds classes at a physical rehabilitation facility (Courage Center, the Handi-Ham parent organization) and the class is free to all employees, clients, and their families. That usually nets us one or two more students. Most of our instructors work with an Amateur Radio BSA Venturing Crew. Members of the Crew and their families attend for free. Again, another one or two students come from this source. The $10 class fee is for all members of a household. This usually provides two to three additional students.

The beauty of the fee for the household is it encourages family participation, and provides a built-in study partner and motivator. Amateur Radio is a marvelous family activity and what better way to start out than as a family.

Part three will cover how to get those new Hams active in the hobby and your club.

If you have questions about getting a person who has a disability started in Ham radio, please contact us at:

Courage Handi-Ham System, 3915 Golden Valley Road, Golden Valley, MN 55422; 1-866-426-3442 Toll-Free; e-mail: patt@courage.org, Web page: www.handiham.org

Traffic

Jim Wades, WB8SIW

Cooperation

Much of what makes Amateur Radio pleasant is the general adherence to voluntary band-plans and similar gentlemen's agreements on the part of the vast majority of Amateur Radio operators. This voluntary cooperation also limits the amount of oversight required on the part of the Federal Communications Commission, therefore limiting the costs and administrative burden associated with the Amateur Radio Service. In other words, Amateur Radio is not yet a cost center for the Federal Government.

Unfortunately, in some areas there seems to be less and less adherence to band plans and voluntary cooperation. For example, in Grand Rapids, Michigan, a simple contractual dispute between owners of a VHF repeater has resulted in two repeaters operating on an identical pair in the same city! Apparently, one party in the dispute has decided to place a second repeater on the pair utilized by a long-established system.

I have not had the opportunity to hear both sides of this particular dispute. However, regardless of the ownership issues involved, such behavior can only be labeled as irresponsible and destructive. In my opinion, there is no excuse for what amounts to little more than an outright violation of FCC Rules on the part of those who placed the second repeater on top of an already established system.

Some months ago, several of us had the misfortune to attend a repeater council meeting during which a repeater was being "de-coordinated." Apparently, the board (no longer in place) felt a Detroit area repeater was being heard too often in their part of Northern Michigan. As a result, they simply decided to withdraw coordination. These individuals offered little evidence to support their action, but they did managed to utilize a variety of foul language when referring to those individuals representing the Amateur Radio club from the Detroit area. One board member in particular kept repeating the phrase "those arrogant b------s from Detroit" throughout the meeting. Sadly, it was the most disgusting display we had ever witnessed at an Amateur Radio meeting.

In other cases, we are now seeing uncoordinated repeaters utilizing those frequencies identified in the band-plan as 'Simplex' channels as repeater outputs. In some cases, these repeaters are using one MHz splits and other non-standard practices. Recently, an emergency management official (also a Ham), cut a lock and seized digipeater equipment owned by an Amateur Radio organization simply to replace it with his own equipment. This action was done with no advance warning or communication with the organization that owned the equipment. One can only guess at the motivation behind such destructive behavior.

We see similar attitudes and behaviors during many traffic nets. Individuals open-up with 1 or 2 kilowatts atop a traffic net because, by some perverse reasoning, they feel they are entitled to use the frequency. In other cases, large groups of radio amateurs simply ignore good operating practice by failing to utilize the minimum amount of power necessary to conduct reliable communications. As a result, two nets or 'round-tables' will end up taking place one half or one kilohertz apart, neither being able to function effectively.

Our image

Such behavior reflects poorly on Amateur Radio. Imagine a regulatory or public official monitoring some of our practices. Imagine what they must think when an Amateur Radio club places a second repeater on the air atop an already existing, long-established system. Just a few such incidents are probably enough to tarnish the reputation of Amateur Radio in the mind of a non-amateur.

An example of this occurred some years ago when we installed a high frequency antenna system for a government agency. I made the simple mistake of tuning in 20-meter SSB (14313 kHz to be exact) and came across an argument involving foul language that would have made a drill instructor blush. Unfortunately, this 'conversation' was also overheard by two senior military officers and a senior civil servant, all of whom expressed shock at what has become of Ham radio. I simply felt about three inches high when it was all over, despite the fact that I was there on a professional basis (not representing Amateur Radio).

There is simply no easy way to say this: If we don't stop these types of behaviors now, they will snowball to the point where the value of Amateur Radio is greatly diminished. Such problems will simply provide ammunition to those who feel our frequencies could be put to better use elsewhere. It will also discourage any quality individuals who may be considering becoming radio amateurs. Worst of all, if we must continually turn to the FCC to resolve petty arguments and coordination problems, we will end up being viewed as little more than a cost center and liability.

What can we do?

Education is the first step needed to