

# World Radio

Year 13, Issue 4

October 1983 • 85¢



Wilse Morgan, KL7CQ (right) gets on the air while David Epstein, KL7LO looks on.

## Amateurs assist

# Hurricane hits Texas

Hurricane Alicia, carrying winds in excess of 100 miles per hour, slammed into the Texas gulf coast at 1:40 a.m., Thursday, 18 August. It caused "hundreds of millions of dollars" worth of damage. About a dozen people were killed. Galveston and Houston took the full brunt of the storm. When the totals are in, it will be — by far — the most expensive hurricane damage in Texas history.

Local civil defense organizations swung into action early, as did CLEARs (Clear Lake Emergency Amateur Radio Service), headed by Bill Shoots, K5BY. CLEARs uses the Johnson Space Center ARC 2-meter repeater on 146.04/64 as their communications mainstay. That repeater is ideal for emergency service, having both generator and battery backup and an antenna (on the nine-story NASA Project Management building) that can withstand winds in excess of hurricane force.

Before it was all over, W5RRR/R would be operating many hours on generator and batteries, as NASA and most neighboring communities lost all commercial power. Widespread telephone outages contributed to the problem. The JSC repeater eventually became the focal point through which all ham disaster communications were routed. NASA's Ken Castle, W5OJ, coordinated the JSC command post.

A network of centralized EOCs (Emergency Operations Centers) was set up in various surrounding communities manned by local civil defense, Red Cross and various emergency-preparedness groups. CLEARs had ham operators stationed at each of the EOCs to assist with communications.

JSC ARC president, Dale Martin, KG6U, said, "W5RRR repeater performed exactly as we hoped it would." While repeaters in Galveston and Texas City went down, "There was no outage for us during the disaster at all." Many local ham groups were forced to go "direct." A mobile communications van was sent to

Galveston to serve as the link to Houston when the Texas City (147.15) and University of Texas Medical Branch (146.115) repeaters became silent as Alicia unleashed her fury.

Most of the traffic passed through the W5RRR command post consisted of rising water level readings, damage reports, power outages and flooded road conditions. In addition, Amateur Radio links to local police and fire departments, hospitals and public shelters were quickly set up — some on direct frequencies to free the repeater for more pressing communications. Thousands of local residents sought shelter in public schools during the hurricane. One suburban police department asked for Amateur Radio assistance when their own repeater went off the air. Ham operators stepped in and passed messages to officers in the field.

A local hospital sustained serious roof and water damage, and Amateur Radio was called upon to coordinate fire departments and ambulances to pump water and transfer patients. Two pregnant women made it to the hospital in time — thanks to Amateur Radio!

Chuck Biggs, KC5RG (NASA's public affairs officer), said the Johnson Space Center also had extensive damage — mostly trees down, plate glass, roof and water damage, but that the storm "... would not impact upcoming space flights," including the STS-9 ham-in-space mission.

President Reagan has designated the Texas gulf coast as a major disaster area. It's surprising there was not more loss of life. The fact that there wasn't was attributed to the emergency preparedness of local civil defense, groups such as CLEARs, and the heavy involvement of hams at and through the W5RRR repeater. Once again, Amateur Radio fulfills one of its purposes — that of providing communications during times of emergency.

—W5YI Report

## Columbia lift-off delayed

The STS-9/Spacelab mission, carrying Dr. Owen Garriott, W5LFL, and a 2-meter FM station, has been delayed for one month. In announcing the 30-day slip in schedule, NASA stated the delay was caused by continuing problems with the Telemetry Data Relay Satellite (TDRS), launched from the orbiter *Challenger* on the STS-6 mission a few months ago.

Shortly after being deployed, the kick motor on the TDRS malfunctioned, leaving the satellite in an improper orbit. The TDRS is needed to relay the voluminous amounts of data expected to be transmit-

ted to Earth from Spacelab.

NASA has rescheduled the start of the STS-9 mission for the end of October.

The North American operating frequencies to be used by Dr. Owen Garriott, W5LFL, from the orbiter *Columbia* have been announced. His primary downlink will be on 145.55 MHz, with other, yet unreleased, frequencies in that range to be used as back-up. North American uplink frequencies will be on 20 kHz centers starting at 144.91 MHz and continuing through 145.09 MHz. This spec- (please turn to page 2)

## Great fishing — better hamming

### David Epstein, KL7LO

"It's a behemoth!" was the battle cry most frequently heard, as a group of nine hearty souls waged a 17-day battle with monsters from the non-briny deep waters of a river in southwestern Alaska, and after the dust settled each day, told friends back home of their experiences via Amateur Radio.

The "mini-DXpedition" was accomplished on the Kanektok (pronounced "kuh-NICK-tock") River — the playground of Wilse Morgan, KL7CQ. "Mother Kanektok," as she came to be known, has her headwaters in Kagati Lake — some 125 miles from the terminus of the river in the native village of Quinhagak ("KWIN-a-hock"), on the shores of the Bering Sea. Along those 125 miles is some of the finest fishing known to mankind.

Wilse had begun plans for the trip a year in advance of the August departure date. It was to be his eighth journey down the Kanektok, but never before had he escorted so many people. This year's contingent included KL7CQ; Betty Rhodes, KL7AP; David Epstein, KL7LO; twin brothers David and Daniel Stevens, KL7EB and KL7WM, respectively; and non-hams Colonel Richard Bronson, USAF, sons Richard Jr. and Michael, and nephew John Kelley — the only non-Anchorage-ite, from Malden, Massachusetts.

In late July, most of the equipment for the trip — including four rafts — was airfreighted to John Orella, KL7LL in Bethel, Alaska, hub of the Yukon-Kuskokwim Delta. John stored the equipment prior to our arrival in Bethel, and finalized arrangements with the bush pilot who was to transport the group to Kagati Lake.

The "raft-a-teers" flew to Bethel via Wien Air Alaska, met KL7LL at the airport, headed for the river where the bush

plane awaited, and, after four round trips, found themselves and all of their gear safe and sound at the Kanektok's headwaters. After a restful night's sleep on the tundra, the rafts were inflated, loaded, and the odyssey was underway! Some members of the group took swimming lessons those first few days (i.e., they fell off the rafts), much to their dismay — (please turn to page 4)

## FCC official talks to hams in Reno

### Peter Onnigian, W6QEU

Phil Kane, head of the San Francisco FCC Field Office, claimed that nearly all of the cases his office has brought about for malicious interference and obscenity have been won — by the government.

Kane — speaking to a full house at the MGM Grand Hotel, Reno, during the ARRL Pacific Division Convention on 20 August — said he foresees additional bands for amateurs in the next five to 10 years. When asked from the audience, he replied that he believes the Commission is split 50/50 regarding the amateur code test issue. He suggested that hams write their feelings to the Commission, as well as to their congressional representatives.

The FCC has now authorized a PEP power level of 1,500 watts for SSB operation. He stated that his field office people measure this level using a Bird PEP-type power output metering device. The double sideband (AM) power level has been grandfathered at 1,000 watts carrier output power, along with CW.

Other new FCC developments include the passing of the 10-year license term, effective with the next renewal, and call signs may be in any sequence as long as the transmitting station is identified. □

For information on how to get your club listed in this column, plus receive many other benefits, write to Dave Tykol, WA6RVZ, Club Liaison, Worldradio, 2120-28th Street, Sacramento, CA 95818.

## INDIANA

**Indianapolis Repeater Assoc.**  
4th Monday/odd numbered months  
Carson Manufacturing  
5154 N. Rural St., Indianapolis  
146.10/70 147.12/72

**Northeastern Indiana ARC**  
John E. Zumbaugh, WD9CVI  
507 E. Quincy St., Garrett, IN 46738  
Daily 6 p.m. net on 147.961.36  
2nd Tuesday/monthly - 7:30 p.m.

## IOWA

**Muscatine Amateur Radio Club**  
Info: Jere Yanek, KA0KPO (319) 264-5490  
Meets: Basement Meet. Rm., Public Safety Bldg.  
Muscatine, IA  
1st Monday/monthly - 7:30 p.m.

**RSCB (Radio Society of Council Bluffs)**  
Richard Swig, WA0ZQG, Secretary  
104A Jennings Road  
Council Bluffs, IA 51501  
2nd Tuesday/monthly - 7:30 p.m.

**Sooland Repeater Association (SRA)**  
KD Stockyards Station  
2001 Leech, Sioux City, IA  
Classes Thursdays 7-9:30 p.m., Sept-May  
Club meets 3rd Tue. 7:30 p.m.

## MARYLAND

**Frederick Amateur Radio Club**  
Frederic Electronics  
Orville C. Bowersox, N3AGM  
(301) 662-4550  
2nd Tuesday/monthly - 2000

## MICHIGAN

**The Eastern Mich. ARC (EMARC)**  
St. Clair County Comm. College  
Student Center Building (Cafeteria)  
Port Huron, MI (313) 364-9640  
1st Tuesday/monthly - 7:30 p.m.

## MISSOURI

**Heart of America Radio Club**  
3521 Broadway  
Kansas City, MO 64111  
3rd Tuesday/monthly

## NEW HAMPSHIRE

**Great Bay Radio Assoc.**  
Dover District Court, Dover.  
(603) 332-8667/332-8015  
WB1CAG/Talk-in 147.57  
2nd Sunday/monthly - 7:00 p.m.

## NEW JERSEY

**Central New Jersey Chapter No 138, QCWA**  
Net: Ea Tue. evening-10:00 p.m. 147.645/147.045 MHz  
Mtg: Quarterly; Membership or more info:  
Bob McKinley, W2OMR, Sec., 89 Stratford Rd.,  
Tinton Falls, N.J. 07724 (201) 542-2113

## Gloucester County ARC, W2MMD

PO Box 370, Pitman, NJ 08071  
VFW Post #2117, Woodbury, NJ  
1st Wednesday/monthly - 8:00 p.m.

## NEW YORK

**Amateur Radio Assoc. of the Tonawandas**  
City Hall, Community Room  
200 Niagara Street  
City of Tonawanda, NY 14150  
3rd Tuesday/monthly - 8:00 p.m.

## Hall of Science Amateur Radio Club, Inc.

PO Box 131, Jamaica, NY 11415  
Queens County Dental Society Bldg.  
86-90 188th St., Jamaica, NY  
2nd Tuesday/monthly - 7:30 p.m.

**Long Island Mobile Amateur Radio Club (LIMARC)**  
146.25/85, 147.975/375, 223.22/224.82, 444.125/449.125  
Membership: Tom Koutsis, WB2IQT, 1341 Harry Ln.,  
No. Merrick, NY 11566. Net Mon 8:30 p.m. 146.25/85  
Meets 1st Tues 8 p.m., H.B. Thompson, JHS, Syosset

**Staten Island Amateur Radio Assn. (SIARA)**  
P.O. Box 495  
Staten Island, New York 10314  
Third Friday/monthly - 8:00 p.m.  
Rm. B-127, College of S.I. - Sunnyside

**Suffolk County Radio Club**  
Meets 1st Tues. monthly, 8 p.m.  
Bohemia Recreation Center  
Smithtown Ave., Bohemia, Long Island  
More info! Jim Heacock, KA2LCC, (516) 473-7529

**Westchester Emergency Communications Assoc.**  
Little Theater - County Center  
White Plains, N.Y.  
Talk-in WB2ZII/R 147.66/06  
2nd Monday - 8 p.m.

## OHIO

**Ashtabula County ARC**  
Ken Stenback, AI8S (964-7316)  
County Justice Center  
Jefferson, OH  
3rd Tuesday/monthly-7:30 p.m.

**Champaign-Logan A.R.C., W8EBG/R**  
Joe Palmer, KS8M, President  
2 Meter Net, 147.60/00, Tuesdays, 8:30 p.m.  
Dinner Meeting, 1st Thursday/monthly  
Dajolees Restaurant, West Liberty, OH, 7 p.m.

**Findlay Radio Club**  
1333 W. Sandusky St./Box 587  
Findlay, OH 45840  
Repeater 147.75/15  
1st and 3rd Thursday/monthly - 7:30 p.m.

**NOARS-Northern Ohio Amateur Radio Society**  
P.O. Box 354, Lorain, OH 44052-3rd Mon. 7:30 p.m.  
K8KPG-Home of the WW II Submarine USS COD WB8JBM-  
Noars Contest Station - K8KRG/Repeaters:  
146.10/70; 144.55/145.15; 449.8/444.8; 223.10/224.70

**Xenia Weather Amateur Radio Net (XWARN)**  
2nd and 4th Monday - 7:30 p.m.  
Xenia PD, City Bldg.  
call in/147.165-147.765  
Xenia, Ohio

## OREGON

**Oregon Tualatin Valley ARC**  
Portland General Electric Auditorium  
14655 S.W. Old Scholls Ferry Road  
Beaverton, OR 97005  
3rd Wednesday/monthly - 7:00 p.m.

## TENNESSEE

**Lakeway Amateur Radio Club**  
Randy Hall, Activities Mgr.  
Box 1636, Morristown, TN 37814  
State Area Vocational School  
Last Thursday/monthly - 7:30 p.m.

## VIRGINIA

**Eastern Shore ARC (ESHARC)**  
110 Church Street  
Chincoteague, VA 23336  
Repeater WA4TVS 147.855/255  
Net Mon. 9 p.m. Mtgs. as announced

**Southern Peninsula Amateur Radio Klub (SPARK)**  
Repeater 146.13/146.73 - WR4ALW  
VEPCO Bldg. (Penbroke Av. & G St.)  
Hampton, VA  
1st and 3rd Wednesday/monthly - 7:30 p.m.

## WEST VIRGINIA

**Jackson County Amateur Radio Club, Inc.**  
Bob Morris, WA8CTO, Sec.-Treas.  
308 Edgewood Cir., Ripley, WV 25271  
First National Bank of Ripley, WV  
1st Thursday/monthly - 7:30 p.m.

## WISCONSIN

**Racine Megacycle Club**  
Red Cross Building  
4521 Taylor Avenue  
Racine, WI 53405  
2nd Monday/monthly - 7:30 p.m.

justice to our speakers by making them wait until the end of our business meeting, often limiting their time, as well as having to put up with our internal bickering. Also, some of our guests drive a long distance, and this will allow them to leave after their presentation if they so desire. I have also directed our new vice president, Jim Lascaris, WA2QEJ to thank our guest lecturers formally, in writing. I feel this is a nice gesture and the minimum that a club of our stature can do to show their appreciation.

## Donation to Red Cross

From Mecklenburg Amateur Radio Society's *ARS News*, Charlotte, North Carolina:

## Donation made to Red Cross

On the afternoon of 17 August, approximately 50-60 members of the Board of Directors and staff of the Greater Carolinas Chapter of the American Red Cross assembled in the auditorium of the Red Cross Building for the initial meeting of their fiscal year. Also there was Jack Barr, WD4JWO, acting in his official capacity as president of the Mecklenburg ARS.

Shortly after the meeting was called to order, the Chapter President, Dr. Angus M. McBryde, Jr., called upon President Barr. Barr briefly recounted the long and mutually helpful association between our club and the Red Cross, and concluded by making a presentation to Dr. McBryde of the club's check for \$1,000, as had been voted upon by the membership at the July meeting.

Dr. McBryde thanked the club and stated that, as usual, the donation would be used for Red Cross mobile communication equipment.

In a brief statement after the meeting, President Barr indicated his thought that the club had received much favorable public relations from this action, since the Red Cross directors come from all over the two Carolinas and will take word of this back with them to their hometowns.

## Outstanding Member Award

Does your club identify an outstanding member each year? If so, do you have published criteria to be met? Tell us about them.

Bill Havas, WB2JQK, has been honored by the Amateur Radio Association of the Tonawandas. From *The Coherer*:

Outstanding activity in and service to the Amateur Radio Association of the Tonawandas, including special events, Field Day and contributions of program ideas as well as program participation.

Is a gentleman or lady, on and off the air; an asset in public to Amateur Radio:

progressive, friendly, balanced, does not slight family or duties in favor of hobby; good operating habits; active on the air; and is patriotic, ready to serve country, community and ARATs in time of need. These are among the qualities considered in making this award.

Scrutinizing our membership roster, there are many people we could consider prime candidates for this coveted award, such as Jim Collier, K2QB, who served as secretary of the ARATs organization, doing such a fine job, serving on the many committees and never seeking recognition.

Then there is Mike Connolly, KA2CJS, who served as VP-Treasurer, doing a great job there and on the many committees. John Latta, W2PVL, served as liaison between the Office of Disaster Preparedness and Civil Defense and the ARATs - a thankless job, to say the least. These are a few of the members to be considered.

Fortunately, the final choice for this award is in the hands of the three senior past award winners and they in their wisdom have chosen a man who has served the ARATs by teaching Novice classes for three years, has been president of the ARATs organization, and almost single-handedly designed, purchased the necessary parts, assembled and found the necessary two sites needed to house, then displayed and gave the necessary instructions needed to operate the only 10-meter FM repeater in operation in this area.

I'm sure one would almost swear they heard the strains of *Pomp and Circumstance* when this award was announced and presented to Bill Havas, WB2JQK.

Congratulations, Bill, and thanks for all you have done for our ARATs organization.

Four Amateur Radio clubs in the Beaumont, Texas area get together to select Hams of the Year. From *BARN (Beaumont Amateur Radio News)*:

## Hams of the Year

Harold Bartlett, W5KWA  
Barnette Singleton, KB5SY  
Judy Davis, KA5MEM

The above amateurs were selected by a Ham of the Year joint committee from the Beaumont, Jefferson City, Port Arthur and Orange ARCs. The committee solicited each membership for their input and vote.

Each were presented the Ham of the Year plaque at the 1982 Christmas Awards Banquet, held in Beaumont, Texas, 7 December. Presenting the awards were Bennie Quandel, Sonny Galloway and Zeb Rike, presidents from the respective area organizations. □

Share your knowledge with your fellow amateur and Worldradio reader

### HAMEG OSCILLOSCOPE

COMPLETE WITH PROBES

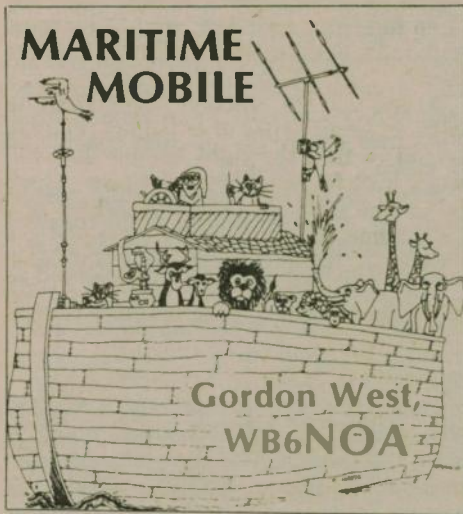
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### High-frequency installations

Keep those cards and letters coming. This lets me know the areas of interest you would like to read about. Judging from last summer's mail, you would all like to know more about high-frequency marine installations.

Let's first talk about high-frequency equipment. The new Kenwood TS-430S still continues to be an outstanding performer. Selling for around \$800, this radio has withstood the true tests of time — numerous voyages in heavy seas without a high amount of failure. In fact, we have heard almost no reports of any difficulties with this equipment. The rig is compact, operates off of 12 volts, and tunes in everything from the beacon band at 200 kHz all the way up to 30 MHz. A one-minute modification will enable the "tens" digit for precise frequency settings. Another one-minute modification unlocks the transmitter for all-band transmit capabilities in an emergency. This rig has a hot receiver, eight memory channels, and appears to have the most features for the buck.

Now don't get me wrong — I'm not married to Kenwood or stuck on just Kenwood products. There have been times when ICOM and Yaesu have produced, in my opinion, the best featured rig for maritime mobile applications. Both Yaesu and ICOM are right on the heels of Kenwood with new products which will possibly fit the mold of the best maritime mobile rig. ICOM has a new 32-memory channel rig coming out that might be ideal for maritime mobile applications. It weighs in just under \$1,500. Yaesu also has a new rig that is supposed to rival the Kenwood set, but I still haven't had my hands on it for some on-the-ocean evaluation. Just as soon as I can do some personal testing of the ICOM and Yaesu rigs, I'll give you the results here.

Back to the Kenwood set: the Kenwood



### Kenwood TS-430S

Users International Radio Club has a unique maritime mobile package with the Kenwood TS-430S. You can either buy the rig from them, or ship your present Kenwood 430S to this group and they will give it a complete, marinizing! This would include better filters, Heil equalizers in the transmit and audio sections, improved noise blanker, modified AGC, a separate receive antenna for beacon band direction-finding, and a complete life-cycle run for three weeks to ensure the set won't develop mal de mer when first taken out to sea.

For further information on what all they do to marinize your 430, write Rich Adams, Kenwood Users Club, 827 Lea Ave., Miamisburg, OH 45342, or call him at (513) 866-1235.

I would like to see a completely modified rig before I go on the line in telling you this is a good or bad deal. We note that the Kenwood Users Club generally tends only to push those things that are the best for the equipment, so I would generally say this "marinizing" service might be a good idea. Certainly the addition of the Heil equalizers would help any radio on transmit and receive.

My last comments about the Kenwood TS-430 deal with the SWR protection circuit. As it is shipped from the factory, this circuit overdoes itself, and prematurely shuts down power at even the slightest hint of any type of SWR at all. I have been told that many of our readers have reduced the protection circuit and have achieved a dramatic improvement in power output within safe SWR limits. You may wish to consider this if your set always seems to kick back power at the slightest hint of SWR.

For the rest of the quality manufacturers of Amateur Radio transceivers, I invite you to drop me a line and let me share with our readers potential maritime mobile installations of your equipment. I will be more than happy to run black-and-white photographs and give equal editorial space to manufacturers or dealers that have installed other brands of equipment.

### HF antennas aboard

High-frequency antenna considerations for both sail and powerboats are always an interesting area to explore. Let no one say to you that any one type of antenna

will always work best aboard your boat. High-frequency antenna installations are, at best, unpredictable. However, I will list some fairly well-proven generalities.

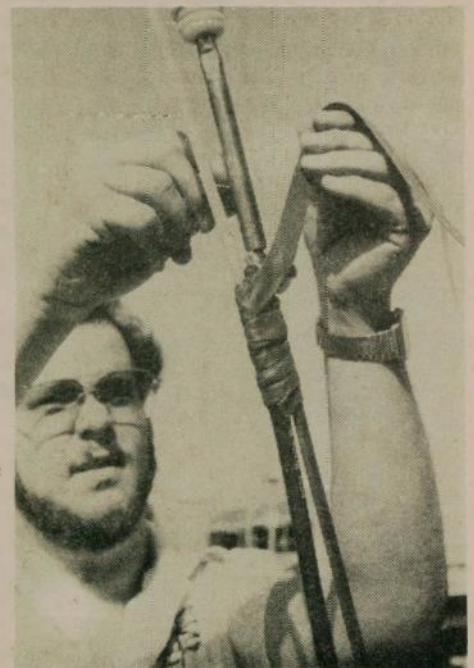
A good grounding system always improves the performance of any HF antenna. Good grounding aboard a sailboat is the keel bolt. Only the keel bolt. Not the life lines. Not the engine. Not one or two through hulls. Only the keel bolt. If you can't get at the keel bolt, drill into the keel lead. If you can't find the lead, try harder. Using anything but your pored keel lead is just foolish.

Ground considerations in boats that have no keel or in sailboat installations where lead pellets are pored into fiberglass gives us an additional challenge. Foil strips each a quarter-wavelength long should be run from the base of the feedpoint. Two foil strips for each band: 10 meters — 8'3", 15 meters — 11'0", 20 meters — 16'6", 30 meters — 23'0", 40 meters — 32'6".

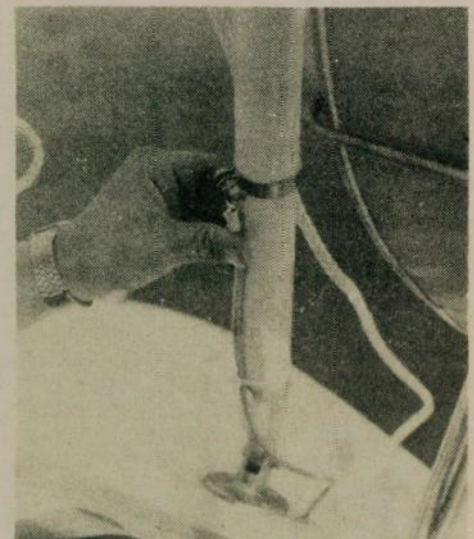
You can fold the copper foil around corners when it becomes impractical to run the radials out straight. Once again, these radials need to terminate at the point where the coaxial cable meets the radiating antenna.

What's a good radiating antenna for power and sailboats? Let's take powerboats first.

Shakespeare Corporation produces



First seal with coax seal putty.



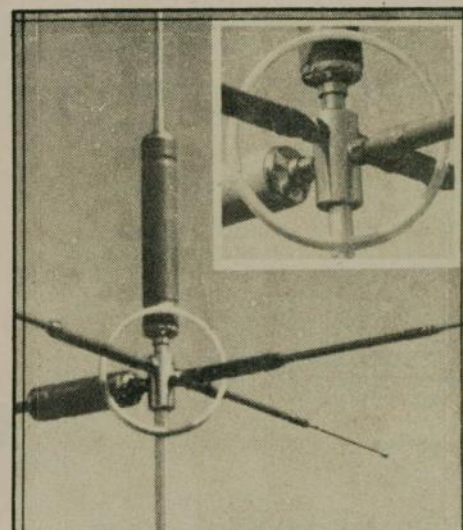
Check for loose antenna wires.

some dandy 2-30 MHz fiberglass whip antennas, 23 feet long, for HF operation. These whips are available at most marine electronic houses that sell marine single sideband gear. The exclusive Shakespeare construction imbeds parallel copper conductors equally spaced around the circumference for power capability of over 1kW. No loading coils or traps are used, but an antenna tuner is required. The best recommended tuner is from Cubic (Swan) Corporation. Ham Radio Outlet in California is the distributor for this tuner. MFJ also makes tuners that might work, but good ol' Mike has not sent me one yet for evaluation!

As mentioned before, the ground radial system needs to emanate at the feedpoint where the coax joins the base of the antenna. Leaving the braid of the coaxial cable non-connected will cause utter RF chaos within your vessel. Never leave the braid unterminated to ground. Never!

If you are looking for an answer to having a powerboat antenna tune up automatically, you could always go to

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for your overseas  
amateur friend  
is a  
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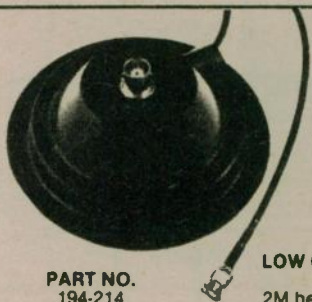
**X-PANDA-FIVE** \$15.00  
plus \$1.50  
shipping and handling USA  
\$5.00 foreign — U.S. funds only

- X-PANDA-FIVE converts your Hustler or Hy-Gain mobile antenna from one to five bands. Add as many resonators for the bands you wish to operate. Adjust resonators for minimum SWR, no stopping to change bands any more.
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- X-PANDA-FIVE can be used to make a multi-band antenna system for vans, campers, motor homes and travel trailers.
- X-PANDA-FIVE will accept either regular or super size resonators.

Dealer inquiries invited.

J.L. Industries  
P.O. Box 547  
Hallandale, FL 33009

## UP YOUR ERP



For HT owners operating inside a vehicle and wanting increased T/R range, RF PRODUCTS has the low cost solution.

Remove your BNC antenna from the HT and mount on the RF PRODUCTS BNC magnet mount, install the magnet mount on the roof top and connect the BNC co-ax connector. The magnet mount (part no. 199-445) has 10 feet of small (5/32") co-ax with BNC connector attached and is priced at \$15.95 (including shipping by UPS to 48 states).

TO ORDER - send \$15.95 money order or cashiers check only  
Fla. residents add 5% tax, for air UPS add \$1.50

PART NO.	DESCRIPTION	PRICE
194-214	2M helical full length BNC connector	\$7.95
194-254	2M helical stubby type BNC connector	8.95
194-814	1 1/4 M helical full length BNC connector	7.95
194-854	1 1/4 M helical stubby type BNC connector	8.95
194-944	3/4 M helical stubby type BNC connector	8.95
195-914	3/4 M flexible 1/4 wave BNC connector	7.95
196-214	2M telescopic 1/4 wave BNC connector	6.95
196-244	2M-3/4M whip 1/4 wave BNC connector	7.95

### RF PRODUCTS

P.O. Box 33, Rockledge, FL 32955, U.S.A. (305) 631-0775

the expensive trap vertical antenna or to expensive marine automatic antenna tuners. Although these items work nicely aboard powerboats when good ground-planes are run, it's an expensive alternative to doing a little bit of knob tweaking on the initial tune-out.

I must say, however, how impressive it is to watch those marine automatic antenna tuners (Stephens Engineering Corporation, Washington) tune out the standing-wave ratio in less than a second, with no moving parts!

For sailboat antennas, an insulated backstay is usually a good performer. Non-contaminating large coaxial cable interconnects the backstay to the antenna tuner. A short RG-8X jumper connects the transceiver to the tuner. Again, the Cubic tuner appears to be the favorite.

The shield of the coaxial cable is grounded to the bottom half of the stay that terminates at the chain plate. The chain plate is then grounded to the keel bolt. An alternative to a keel bolt ground would be quarter-wavelength radials, made of foil, emanating from the base of the chain plate.

The backstay antenna is usually a solid performer once it is tuned up properly. This requires some skill on the initial tune-out, but more about this next month.

Other sailboat antennas that seem to work out well with a good groundplane directly beneath them would be whips. Mobile whips require no tuner. Not all mobile whips work well aboard sailboats. We usually find that it takes a selection of 10 different types of whips to find at least two that may work satisfactorily. Who knows why?

Rather than spend hours on pruning and base matching, I just swap different types of whips from different manufacturers until I find the right combination. Sometimes a Hustler whip works fine on one transom, but won't load worth a darn on another. I simply change brands and styles in loading, and we can usually find one that works well. In other words, it's almost a trial and error business with a year's supply of loaded whips until you find just the right combination.

The right whip with a good ground-plane beneath it may actually outperform some insulated backstay antennas. Such is the case of a homebrew whip

antenna section using the metal wind vane as a groundplane. KA6YBB right now is sailing all over the South Pacific with the loudest signal on the band with this arrangement. Trial and error finally led to the optimum antenna!

Inverted V's work nicely when they are hoisted in the clear. Slopers also work fine when in the clear. Any type of wire antenna, when erected near or within standing rigging, generally loses a tremendous amount of signal into that rigging. Again, give it a try and see.

How do you know you have a good signal? Try exchanging signal reports with other stations. If they consistently give you the same report as you receive them, everything is fine. If they give you better reports than what you hear, you may have some absorption on the received signal by standing rigging.

However, if you hear them as an "S-9", but they tell you your signal is in the mud, your rigging is probably absorbing the signal or you forgot to add a groundplane. Consistent reports of poor

signal reception when you hear them fine is an indicator that you need to reassess and redo your marine antenna installation.

Above all, do a lot of experimenting with different types of antennas. You are bound to find the right combo that will work best for your type of vessel. There is no one antenna that works best and every time. If you have the time and the antenna selection, try all combinations.

See you next month, and we'll talk more about how to tune antenna tuners.

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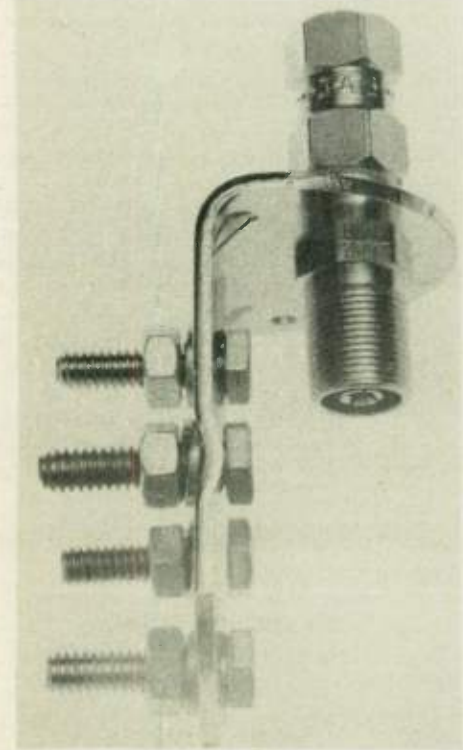
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**TEACHER**  
 Alan Kline, KB1DJ  
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Our repeater recently mailed out its now annual survey to the membership. One of the questions posed an interesting situation. Should the repeater make its capabilities better known to the general public and especially the local elected officials? I had to ponder over this one for awhile, for in the last few years, our repeater group has provided communications for the great Lynn fire, the blizzard of 1978, many local road races, and most recently — a search for three lost boys in the Hamilton-Wenham, Massachusetts swamp. It would seem we were covered in the public service end.

But, maybe not. I have always wanted to have an "Intro to Ham Radio" night for the local police, and after some thought, have decided to have a special program to promote Amateur Radio in this area. It will be twofold: to educate and inform, and to get possible recruits for our ham classes.

As class attendance has dropped off lately, we could use more students. Also, we are starting a new program at the local high school, and the teachers could learn about Amateur Radio beforehand. Finally, the Civil Defense (CD) director in my own hometown could use a basic education in Amateur Radio to enable him to better utilize the repeater's members.

I am suggesting we pick a night (one of our regular meeting nights) and invite a selected list of the local police, fire, CD, educators, elected officials — possibly even the mayors of the cities our repeater serves. By having it on one of our regular meeting nights, we could suggest to our

members to bring their friends and neighbors.

Here is a breakdown of who we might specifically invite.

#### Public safety

Under this category, we could invite all the police chiefs, captains and shift commanders, fire chiefs and captains, state police department heads, all local harbor-masters, and the CD directors who are not amateurs. It is important that, should an emergency situation arise, someone in charge knows who we are and what we can do, so that we might be contacted for communications as soon as possible, and mobilize quickly.

#### Elected officials

I don't know if local mayors would come out to see us or not, but they should be invited, as well as the selectmen in towns where they are in control of the government. Also included in this group should be the chairperson of the town's cable TV advisory committee.

#### Education

Here on the North Shore, we have two four-year colleges, one junior college, three vocational/technical high schools, plus a high school and junior high school in every town that can hear our repeater. If we just invite the guidance counselors and those who teach electronics, we have a very large group. If you add the teachers who are involved with computers and the science department heads, the list gets very long. It is important that we have a knowledgeable person about Amateur Radio wherever an inquisitive student or adult might be.

We also might consider inviting the directors of the three museums in the town where the repeater is located.

#### What to do

When the meeting night comes, we should be very well prepared. First, have the club president explain why we invited everyone there. Then take a roll call of those present. Have our club vice president give a brief history of our repeater. Let's keep this part as short as possible.

Now, let's show the Amateur Radio movie we own — Dave Bell's "The Wonderful World of Amateur Radio." After the movie, we can explain the repeater's capabilities. After that, our newly appointed Emergency Coordinator can be introduced, plus explain our class

system. We would try not to bore them with details, for they will still be thinking about the movie.

#### Follow-up

Offer literature about our history, system and explicit details of exactly what we can and cannot do. Also, who to contact for help in an emergency situation and who to contact about classes. We can offer to resolve RFI and CATVI complaints, even if we know we are not at fault. We must make sure that if any single department wants an Amateur Radio demonstration or the movie shown to their own people, that we are easy to contact.

Finally, if any of the departments agrees to a regular plan of action in an emergency situation, I would suggest we

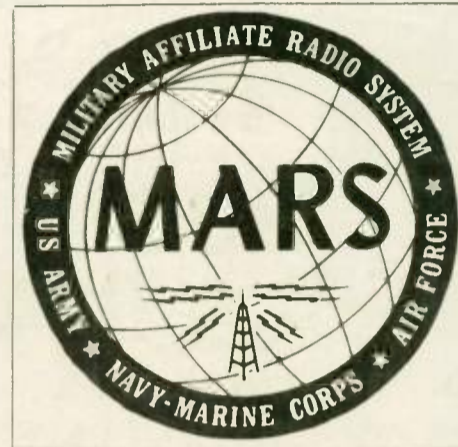
install a 2-meter base antenna at their building.

#### Comments

To my Worldradio readers: I proposed the above article to the board of directors of my repeater. The geographical location of your club will determine whether the above applies.

If you are in a small rural area, you could probably invite all these people for one night. As the population count in your club's area gets larger, you will probably have to single out just one of these groups at a time to invite. In a large metropolitan area like New York or Los Angeles, you might have to single out the group that knows the least about Amateur Radio.

In any event, this should make a good annual program for all clubs. □



The following article appeared in the September 1983 edition of the 7th Signal Command Western Area MARS Bulletin. The article was prepared by Jim Haley, W6NM/AAR9HN.

#### Fresno DXer and National Guardsman

##### Jim Haley, AAR9HN

Jerry A. Chandler, AAT9NB/K6PKO is staff sergeant and avionics inspector of the 1112th AVCRAD (Aviation Classification and Repair Army Depot), of the California Army National Guard, located in a hangar at Fresno Airport. When he's not performing his duties as an Army National Guardsman, Jerry is busy with his other career as owner-operator of an automobile repair business in Fresno.

The mission of the 1112th AVCRAD (a 300-man unit) is the servicing, repairing, modification and rebuilding of Army aircraft, both rotary and fixed wing. In performing this productive role for the military, the 1112th operates an impressive and extensive installation consisting of a number of separate shops, including an avionics shop, sheet metal shop, engine repair and rebuilding shop, propeller and rotor shop, and an electric shop. The unit also exercises flight-line control of Army aircraft at the depot.

The layout of the military MARS station at AVCRAD (AAR9USX) is almost entirely civilian-type gear — all of it furnished by and the personal property of Jerry. The main HF equipment consists of an SB-102 Heathkit transceiver driving a homebrew 1200 watt linear, using 4-400's in a grounded grid configuration.

For a backup rig on HF, there are a National NC-300 and a Hallicrafters SX-100 receiver, together with a Hallicrafters HT-37 exciter. Jerry has also generously provided AAR9USX with antennas. High atop the AVCRAD's hangar, Jerry has installed a 40/20/15/10-meter Wilson vertical, a 40-meter inverted-Vee dipole, an

80-meter horizontal dipole and a 2-meter groundplane.

Jerry has been an active member of the California Army National Guard since he first enlisted back in 1955. During the 28 years he has been in the Guard, Jerry has belonged to CalARNG outfits in Stockton, Redding and Sacramento, as well as his present one in Fresno. At those locations, he has served at different times with units of the Ordinance Corps, Signal Corps, Engineer Corps and Transportation Corps. He is a graduate of the U.S. Army Signal School at Fort Gordon, Georgia, with a specialty in radioteletypewriter operation.

Jerry's home station, K6PKO, is also very well equipped. On HF, he has a Kenwood TS-520S with separate Kenwood VFO driving a Heathkit SB-220 linear amplifier. This is backed up by a second TS-520S with a Thunderbolt (Viking) linear. On VHF, he has an ICOM-251 all-mode 2-meter transceiver; an FT-221, also an all-mode 2-meter job; and a Yaesu FT-625RD, a 6-meter transceiver. The antennas at K6PKO consist of a Hy-Gain 402BA 2-element 40-meter beam at the lowest level of his mast; 7 feet above that is a Christcraft ATB-34 20/15/10-triband beam; 6 feet above that is a 19-element 2-meter beam; and 5 feet above that is a 6-meter vertical — altogether quite a Christmas tree.

Jerry's attainments as a DX operator are even more impressive than his equipment line-up. He is 6-meter WAC, 5-band WAS, 10-meter WPX, WAZ, AJD on 6 and 10, Canada Award on 10, DXCC on 10 with 276 countries confirmed and 307 worked, and CQDX. He is a member of the Northern California DX Club, the Central California DX Club, the Northern California DX Foundation, the Fresno ARC, and he is a life member of the QCWA.

Jerry was born in Madera, California in 1937. He is a life-long resident of the Central Valley and a third-generation Native Son of the Golden West. He and his wife, Faye, live in Fresno. He has three sons: Jay (25), Richard (22) and Jack (20). □

#### Lightning strike

Tom Lufkin, WA4DAX — after a recent electrical thunderstorm — highly recommends ARRL Ham Radio Insurance. It seems he had the misfortune of lightning striking his electrical line and smoking a majority of his equipment and antennas.

Thanks to the ARRL, he should soon be back on the air.

—Trident ARC, Summerville, SC □

**AMATEURS** .....

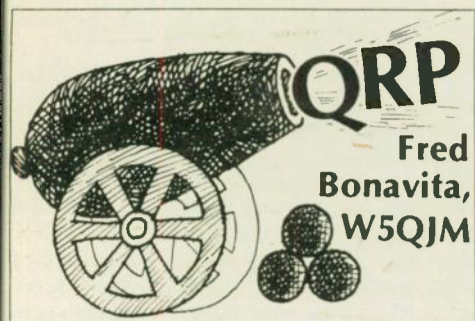
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(Part I of a series)

The resurgence of interest and awareness of balanced feedlines for antennas has generated about as many questions as it has provided answers.

While use of balanced transmission lines — especially open-wire lines — has been rightly touted in articles in Amateur Radio publications in recent months, more attention has been devoted to *why*, and not enough to *how*. This series is designed to rectify that situation and offer some new considerations.

Every QRPer is well aware of the importance of getting every bit of power possible into the antenna and into the air, and the feedline is the key to this. Starting with a lossy, power-consuming coaxial cable is a wrong first step. Admittedly, there are some applications where coaxial cable is a must (balanced line cannot be buried, for instance), but they should be held to a minimum for effective QRP operations.

One of the best pieces on open-wire feeders is by Lew McCoy, W1ICP, in the August 1982 issue of CQ. Various antenna books and handbooks deal with the technical aspects of balanced feedlines and offer charts for an easy comparison of their loss characteristics versus those of coaxial cable.

Several commercially-made sources of balanced lines are readily available, and a list of some appears at the end of this.

For those who prefer to roll their own, instructions for doing just that appear in the publications mentioned. Savings of up to 50 percent can be had by homebrewing feedlines, so it is not an idea to be discarded lightly. And commercially-made balanced lines cost far less per foot than does coaxial cable.

There are three kinds of balanced feedlines we will deal with in this series: the venerable 300-ohm, tv-type twinlead; the 450-ohm ladder line, similar in construction to the twinlead and insulated; and open-wire line made up of bare wires separated by spacers. This latter category has impedances of from 450 to 600 ohms, depending on the spacing between the conductors.

While the 300-ohm twinlead is the most readily available and least costly, it is — at best — only adequate, especially in a permanent installation. Its main drawback is that it can change impedance when wet. If it is to be used, however, shun bargain-basement varieties in favor of the more expensive and higher quality twinleads.

I have a fine-performing HF antenna fed with 300-ohm twinlead which I use for camping and other portable operations, but I use 450-ohm, open-wire lines at home with better results.

The 450-ohm ladder line is much better than the 300-ohm twinlead, and the fact it is insulated makes it superior to open-wire line in certain applications, especially where passage near metal objects is a factor.

Open-wire line, when treated properly, offers top-of-the-line performance among

the balanced lines. It is virtually loss free, even for VHF. However, it does not lend itself readily to portable installations since it cannot be easily coiled and tucked away. Measuring lengths of commercially made, 450-ohm, open-wire line is easy, since spreaders are spaced either 6 or 12 inches apart.

The need to keep balanced lines — especially open-wire line — away from metal objects is a major drawback in their use. Unlike coaxial cable, balanced lines cannot be taped to the legs of, say, a tower, but must be stood off. This presents no major problems fortunately, and offers some dividends.

I have an open-wire-fed antenna hang-

ing from an arm (a 6 ft. length of tv mast) near the top of my 40 ft. tower. I cut two pieces of 1-inch PCV tubing about 4 feet long and drilled one end so U-bolts could clamp them to the tower legs and hold them in a horizontal position.

The PCV tubing was then clamped to the mast about one-third and two-thirds of the way up, using pairs of legs so that a "spiraling" effect was achieved. The open-wire line was then taped to the outer end of the tubing, resulting in a spiraled effect as it goes up the tower. This keeps the wires away from the metal and offers additional support in windy weather.

Whether open-wire or twinlead, balanced lines should be twisted about two

turns in each 3 feet of their lengths to prevent possible capacitive reaction with nearby objects. Take care that the twists do not result in the shorting together of open-wire leads, however.

Next month: Working with balanced lines, a suggested antenna and use of transmatches.

(Sources of balanced lines: Kilo-Tec, Box 1001, Oak View, CA 93002; Radiokit, Box 411, Greenville, NH 03048. □

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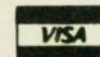
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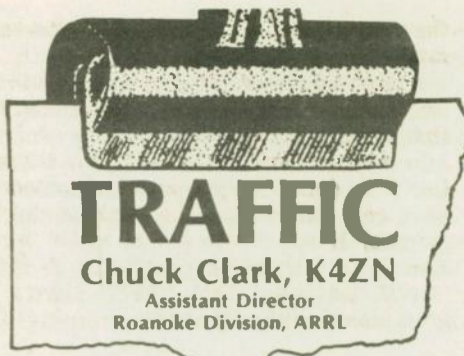
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## RACES

There seems to be a lot of misinformation among amateurs about RACES, and probably even more ignorance. The Radio Amateur Civil Emergency Service (RACES) is not an organization, a net, or an organization of nets. It is a radio service, a category of stations which are required to follow the rules given in Subpart F of Part 97 of the FCC's regulations.

These rules have undergone a number of changes in recent years. At the present time, no FCC authorization is required for an amateur to participate in RACES. All that is necessary is for the local civil defense organization (or any such organization, state, regional or national for that matter) to register the station as a participant in its activities.

If military needs require the government to close amateur stations, those stations which are registered with a civil defense organization will be allowed to continue operating, but only as permitted by the RACES rules. Here is a summary of those limitations:

*Operators must be licensed amateurs enrolled as operators in a civil defense organization.*

*Frequencies are restricted. In a war emergency, the military will use amateur bands to provide additional frequencies to handle their larger communications load.*

*Communications are limited to those authorized by the civil defense organization. No regular amateur activity is allowed. The organization is allowed to order drill sessions, but not more than one hour per week.*

Some have misunderstood these rules to mean that all these restrictions are in force even when no war emergency exists. Well, misunderstood may be the wrong word, because technically they are in force. But an amateur station operating

in RACES does not cease to be an amateur station and so may continue operating as such as long as regular amateur operation is permitted. So if the civil defense radio officer thinks his RACES group should have more than an hour-a-week drill, it's permissible — if they drill as amateurs, not specifically as a RACES group. If the RACES frequency is hopeless, they may move off to an unoccupied frequency, even if it's not authorized for RACES.

There's one more reason for the confusion about the restrictions and their effect in peacetime. Until recently, persons holding commercial radio operator licenses were authorized to be control operators of RACES stations. If one of them were operating a RACES station, the station would be limited by that fact to what is allowed during wartime, because a commercial radio operator license does not qualify a person to be control operator of an amateur station. But now the commercial ticket no longer qualifies, so all operators are holders of amateur licenses.

One point is not clear in the regulations, however. Section 97.179 says, "Operator privileges in the Radio Amateur Civil Emergency Service are dependent upon, and identical to, those for the class of operator license held in the Amateur Radio Service." Presumably that means Technicians may operate only on Novice bands using CW, and on VHF, and Novices only on Novice bands using CW. But the frequencies 3500-3525 are also assigned for specific purposes.

May only Extra class operators operate here? I personally do not believe this was the Commission's intention, but rather it was something that crept in during the process of amending the rules. Section 97.179 was already there when the FCC adopted its incentive licensing program and closed 3500-3525 to all except Extras, and nobody thought of the fact that it would also affect RACES operation. To prohibit all but Extras to use these frequencies during a RACES emergency operation during wartime could limit unnecessarily the number of operators available. But as it stands, that's what the rule says.

### That question again

It just won't go away. That question of business communication keeps coming in the mail. Now under date of 30 June, the FCC has clarified the meaning of the rule, and, as usual, caused people to ask still more questions. The clarification was on the point mentioned in the August issue of this column, that the prohibition of business communications which are not third-party.

Rod Stafford writes from San Jose, California, to say that many of our public-service events would seem to fall squarely within the language of the prohibited activities. A careful reading, however, indicates that they do not. First, this ruling of the FCC was adopted without giving an opportunity for public comment, and so is to be understood as merely interpretive, not making any substantial change in the rules. And so, what was legal before the ruling remains legal now.

The FCC had two purposes in mind in making the ruling:

- 1) Section 97.114 could be interpreted to mean that non-third-party business traffic is legal and the FCC wanted to say that such an interpretation is erroneous;
- 2) a few editorial rearrangements were made, such as putting the definition of business communication into Section 97.3 with the other definitions.

In many of our discussions about what

is and what is not allowed, we overlook the word *regular* in the definition — the regular business or commercial affairs of any party. So, providing communication for a March of Dimes walkathon, or for a yacht club's regatta or anything similar, is permissible. If such an event happened every day, or even every week, it would be a regular activity.

In such a case, the organization should apply for a license in the Business Radio Service or other service in which it is qualified to hold a station license, and set up its own communication system. But something that happens only once a year would not justify such an expense and it's entirely proper for amateurs to provide communication service.

### Figures in messages

Even though we are not to handle business traffic except as emergency traffic, and so don't have as much occasion to speak of dollars and cents, there are still many figures used in an amateur message. In fact, the first item of every message is a figure — the message number.

Unlike words, figures have no built-in way to check for accuracy. For example, there are 676 combinations of the 26 letters of the English alphabet taken two at a time, but of these only about thirty have any meaning, and in many cases the only possible meaning restricts the choice to only one or two words. But of the 10 digits there are 100 possible combinations, and in many cases all of them are valid figures. And so, while absolute accuracy is a must in all traffic handling, it's doubly important when figures are being communicated.

In some cases, letters exhibit the same need for special care to be accurate. The most common instance is in the case of radio call signs. Another is the military address, so often including alphabet soup unintelligible to us civilians but essential for the military in locating the addressee of the message. And some names can be difficult, at least for operators unfamiliar with a particular group of foreign names.

Probably the most important figure to get correctly in a message is the telephone number. It takes only one error to render the whole number useless. I must say, however, that my experience has been that telephone numbers are rarely wrong on traffic that I have received. Most operators appreciate the importance of accuracy here and take special care to get it right.

How to send a telephone number? Send the area code, pause afterward, then give the first three digits as a group, pause, and the last four. The inclusion of the area code is optional with the originator of the message. Should it be included? It's a toss-up. Normally an amateur delivering a message will not have to use the area code, as we rarely call even outside our local billing area to deliver a message. But sometimes it helps to decipher an address that has been garbled. The ZIP code is usually more useful for this purpose, however, as the ZIP code narrows the search to a smaller area than the telephone area code.

The area code is more useful in Canada, because the Canadian postal codes are not as useful as the American ZIP codes in locating an addressee. The American code's first digit identifies the general area of the country, the first three narrow the search down to the section (usually a few counties) or large city, and the last two figures indicate the post office or branch. I asked a Canadian amateur how their system works and was told that it is not similarly constructed, that it is not useful to anyone outside the postal ser-

vice. If anyone can throw light on the subject, it would be appreciated.

Telephone numbers that appear in the text of a message are counted as two words, or as three words if the area code is included.

Outside the United States, Canada, Mexico, Bermuda and some islands of the West Indies — which use the 3-3-4 telephone number format, you will find many variations. Just pass them on as received. But be alert when handling traffic destined for such countries; otherwise the unusual telephone number may take you by surprise.

ZIP codes are sent as one group of five figures; Canadian postal codes as two groups of three: letter, figure, letter; space; figure, letter, figure.

One other figure frequently encountered in messages for the military is the social security number, which will appear immediately after the addressee's name. It is sent in a 3-2-4 format: 368 48 2686. Sending phone numbers and social security numbers with the proper spacing, and ZIP codes with no spacing at all is helpful to the receiving station, especially when copy is difficult.

### Military message form

Traffic destined for U.S. military personnel, and for certain civilians serving in countries which have no third-party agreement with the United States, is transferred to the MARS nets for international transmission. MARS uses a different message form than that used by the Amateur Radio Service.

Amateurs, however, are directed to send such messages via the National Traffic System or via independent circuits, and ordinarily will use the standard amateur form. Somewhere along the way, the message will be picked up by an amateur who is also active in MARS who will rearrange the message into the MARS format and will relay it on MARS circuits for the international part of its journey.

Usually, messages coming to the United States MARS are handled to their destination on MARS circuits, but sometimes the MARS nets have no outlets. In such cases, frequently a MARS station will refile the message in an amateur net for final delivery.

In both cases, it is the MARS operator who has to do the translating. Other amateurs need not concern themselves with MARS message form. But for those who are curious, here is the MARS message format:

Number. Each station supplies its own number. A message from a busy station may be number 635. The next station relaying it may be a low-volume station and number the message 13. Precedence follows, as for amateur messages.

Date-time group. Sent as six figures, the first two giving the day of the month, the last four the Greenwich time, followed by the month and year. Thus, as I'm writing this now it's 060021Z Aug 83, or in civilian terms, 8:21 EDT 5 August 1983.

From line. The name, address, telephone number of the sender and the call of the station of origin and its location.

To line. The name, address, telephone number of the addressee.

Group count. The count of the number of words in the message, what amateurs call the check.

Break and the text. Break. Operator's notes if any, end of message.

Note that if a signature is used at the end of the message, it is included in the text, and counted as words of the text. □

## DIRECTION FINDING?



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## More on first ham

Although we'll never know if Irving Vermilya truly was the first licensed radio amateur, there's no doubt of his be-

ing one of the leading lights of early "wireless." A letter from George D. Rogers, W1AVY (ex-1AVY), provides more information on Vermilya's activities. George knew him when Vermilya's call was 1HAA and he was the owner of one of the most beautiful "fists" on the air. George relates that it was pure pleasure to listen to 1HAA sign his spark transmitter off. He followed the usual custom of holding the key closed while the rotary spark gap coasted to a standstill. Any person who has ever heard a rotary gap coasting to a stop will never forget the sound!

George lists several commercial radio stations with which Vermilya was associated and pointed out a wild goof that was made on the antenna grounding switch installation at one station. He readily recognized the mistake, for George is a master electrician!

Being very fond of the 1AVY call, he

passed up the opportunity to obtain a two-letter call. One might note that Vermilya's later call, W1ZE, denotes a special type of station license which provided for special frequencies and additional power. Contrary to what many uninformed people think, the licensing authorities of the U.S. government have had "incentive licensing" ever since the Radio Act of 1912.

### New service proposed

Ken Dale, W7VCB, has suggested a bank of older magazines relating to radio and other aspects of electronics. His proposal calls for a central storage and retrieval point where publications would be identified and indexed. This information would be cataloged, preferably in a computer. He suggests that the index page(s) of each available publication be stored in the computer, along with information as to where the magazine is located. A person wanting a reproduction of a particular article could then contact

the owner to arrange for reproduction and mailing.

To me, this sounds wonderful! All that remains is to find a person or organization that could and would operate the central information bank. What do you think? Can it be done? Do you know of someone who can undertake the commendable project? If so, please get in touch with Ken Dale. His address is Route 2, Box 300 B, Raymond, WA 98577. Here's a good idea that should not die aborning! □

## Check that QTH!

Gary Payne, KE6CZ

With the 1984 Callbook, due out in a few months, please make sure your QTH is correct. In each Callbook, there are numerous stations listed as: "Mail returned. QTH wanted by Callbook." So please, check your Callbook QTH and send in the correct QTH, if necessary. □



It was only a few months ago when I sat down to the typewriter and jotted a few words about why handicapped folks find Amateur Radio such a terrific hobby. Aside from camaraderie, service to community, challenge, decreased isolation and knowledge gained through the hobby, there is also a very practical aspect — that of communication. Communication because one has limited speech or communication in times of emergency.

Picture yourself in this situation. You are driving your van home from work. Your wheelchair is conveniently positioned in the driver's seat. The lift is ready for easy access as soon as you reach your destination. Now then, you hear an unpleasant sound and feel a strange thumping sensation. Stopping the van, you prepare the lift for exit. Then you realize that even if your tire is flat you can't do much about it without help from someone else. And you are not exactly crazy about wheeling around your vehicle on a busy highway. What to do? Whip out the hand-held and let someone know your situation. At least, that is what everybody says ... so far, that has not been my experience.

For the benefit of others on the highway, I don't drive (I'm blind). But my OM does. (He has no arms and uses a car designed with all foot controls.) Once, while caught in a sudden winter snowstorm in the middle of nowhere, we tried to use radio to get directions and assistance. But alas, being in the middle of nowhere, there were no repeaters.

Or take the time when two other hams and myself were on the road in the Black Hills of South Dakota. Two cars in front of us, a camper trailer blew up, exploding flames everywhere. It was a very serious

situation indeed. Whipping out the hand-held, I hoped I might be able to help. But alas, again no good; the PL-257 had been inadvertently forgotten and the Larsen Magmount was not usable. The rubber ducky just didn't give enough height in the hills to access the repeater 13 miles away.

There are times when I have wanted to verify directions or just have someone to chat with, but was not acknowledged by anyone when I said I was monitoring the repeater. You get the idea it's not always all it's cracked up to be on 2?

Here is a checklist of things you might want to remember before using your HT out on the road.

1) Make sure the rig is charged and bring along the charger to be used on stationary stops.

2) Test the rig out a day or two before leaving to be sure it is in good working order. This should actually be done mobile with the equipment you plan to use on the road.

3) Make sure you have your antenna and PL-257.

4) Write down repeaters you would be needing and make sure they are in a readily accessible place. (You might wonder why I didn't just mention having a Repeater Directory handy.) This is fine, but in a life-or-death emergency, they can sometimes be hard to use.

5) When you are going to be traveling where there is not a repeater, be sure you have a good map, and try to avoid traveling in these areas when severe weather is forecast.

6) Take your rig out of your vehicle or conceal it, to avoid its being stolen.

And here are a few tips for those of you on the other end to help the wayward traveler.

1) Be friendly and courteous. Say hello to someone with an unfamiliar call.

2) Have a map in your shack so you can give directions.

3) Let folks know the distance your repeater covers and frequencies of neighboring repeaters. Keep these handy.

4) Have available a phone book and numbers to local authorities.

5) If someone says something over the repeater which is not readily understandable because of slurred or affected speech, they may have a disability. Be patient, and don't be afraid to ask them to repeat needed info.

6) Lastly, think of how it would be for you if you were the guy on the other end.

NOTE: The Courage HANDI-HAM System has some Spanish-speaking students. Any information about sources of Spanish texts would be much appreciated. □

## Retired broker now busier than ever

"I'm actually busier now than when I was in business. I can't wait to get at each day." This statement was made by Herb Blasberg, WA8PBW, of Cincinnati, Ohio — a retired real estate broker.

Herb and his wife, Emily — both 67 — keep active with a variety of activities, including bowling, photography and travel abroad. Herb is also pursuing a general studies degree at Xavier University. When he's not in college or traveling the world, he teaches radio skills to seniors and the handicapped — for free.

One of the reasons seniors die shortly after retirement, Herb believes, is that they have nothing to live for. Hence, Herb's Amateur Radio lessons.

Herb caught the ham radio fever in 1957, when his son was 13 and had taken it up as a hobby.

"I taught Amateur Radio skills at Raymond Walters College of the University of Cincinnati for years. When I gave that up, I continued to offer those who wanted to learn this hobby to come to my home for classes. If they are handicapped and can't get out, I'll go to them.

"Beyond a hobby, it has made friends for Emily and me around the world. When we travel we meet people we've talked to on worldwide radio. Often we'll have lunch or dinner with them. Once in Nova Scotia, our ham radio friends directed us to the best places to eat and even had a ferry boat held for us after we missed our first connection."

This fall, the Blasbergs will be traveling to Israel, Egypt and the Greek Islands.

—Info from article by Alice Hornbaker, *The Cincinnati Enquirer* □

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## Remote-controlled direction-finding

The last two months, we have been going into some detail on repeater remote-controlled direction-finding (DF). If you missed reading them, do get a copy before you read this one — if you wish a proper perspective on the subject. We have covered the fact that no automatic DF is possible at VHF, unless you display ALL PATHS of RF arriving. We've discussed proper selection of equipment to match your site, and then covered voltage-averaging DF methods (beams, loops, quads, switched antenna voltage — buzz averaging, etc.).

## Emitter and transmitter differences

One of the problems VHF DFers face is identifying the difference between an emitter and a transmitter. A transmitter emits RF. So does an emitter. A transmitter is normally considered the originator of RF. A parabolic reflector can gather RF energy from a transmitter and concentrate RF of an even higher energy level, in a very narrow direction. Technically, the reflector is not the transmitter, even though it is emitting more RF than the transmitter. If you took a DF unit of any kind, and positioned yourself so you could see RF energy from both sources, you would have an excellent position to test VHF DF units.

When a TV set's antenna is positioned so that it "sees" a direct transmitted signal AND a reflected signal, you often see "ghosts." Numerous steps are available to eliminate or minimize these undesirable results of the "multi-path." The same is true of VHF RDF (radio direction-finding). By known target experiments, we learn the various idiosyncracies and characteristics of each method of DF. We can then choose more wisely.

## Commercial DF units

I find it very hard to write comments about the various DF units presently on the market. Each have their strengths and weaknesses, as do all the "homebrew" DF methods. We are intentionally

avoiding discussions on these brands. The known target experiments we have suggested will do a better job of evaluation for your specific needs. You should remember that unless a device is capable of telling all paths at once, it can only give you a true answer if there is only a direct path to the DF (with no reflected paths discernible). It is unfair to be angry at the manufacturer when you are dealing with a reality.

If more than one path exists and the DF can only provide one answer, it has to be a compromise — or just one of the paths. The trick is in knowing which condition exists. Most of the DFs on the market can give you the answers, but not from just one reading. Logic is a very important part of VHF DF.

## Phase-measuring DF units

One of the devices I have not mentioned is the so-called "phase-measuring" DF. The first one I encountered was made by two radio amateurs in Anacortes, Washington. At one time, the HAPPY FLYERS offered a kit to build your own phase-type DF unit. We thought this would be a boon to the Search and Rescue community and jammer hunters. We are almost sorry we became involved. Phase DF can do a number of things that other

types of DF systems cannot; however, with the extra capabilities, you run into additional operator problems. Many people wanted us to manufacture finished units. We said there are already other phase DFs on the market, and finished ones were available. We no longer produce even the boards. We are in the process of writing a series of articles to be published in a major ham magazine.

From the standpoint of remote-controlled DF, phase DF has a number of nice side effects. Like the popular commercial voltage-averaging switched antenna DFs, it uses a zero center meter to tell you to turn left or right. By properly connecting an OP amp to that circuitry, both DFs can produce a tone on a downlink transmitter to receivers in members' homes. By putting a frequency counter on your speaker leads at home, you can then easily tell when the antenna direction has resulted in a "zero" reading. By connecting a 566 (or other similar tone generator) to the indicator on your rotor meter (like our KLM on the HAPPY FLYERS remote-controlled seminar DF unit), you can create a calibrated tone frequency to known points around your repeater. (A command to your repeater control system switches the downlink tone from the zero-center meter to the rotor meter direction tone, after you have centered the meter.)

The difference between a reading taken with any type of voltage-averaging method and a phase DF, is that the phase DF tends to show more than one path as the antennas are rotated. If you have a reflected and a direct-path 45 degrees apart, you will usually get a reading on both. Some people do not like this because you now must figure out what your two answers mean. It is also possible to have

two reflected paths and no direct path — or a reflected path with no direct one. In each of these examples, a voltage-averaging DF would have normally given only one answer.

We have found that you can usually tell the difference between a direct path and a reflected path, with a phase DF. It takes experience and a number of techniques. All are common sense and logic.

At a repeater site, the easiest way to notice the difference is to listen to the tone produced by the zero meter OP amp. Direct signals (without reflections) tend to be stable. Reflected signals, by their very nature, tend to be unstable. Reflections are controlled by geometric angular rules. Unless the reflective surface is perfect, any deviation (caused by heat waves, etc.) on the direct signal, may be at least doubled in the reflection. By listening (or looking) at the "zero" indications on each path, you can usually tell which is the best path to your DF.

Wish we had space to continue, but truly hope these three articles have been helpful to all interested parties. Please understand my inability to answer letters very quickly. I travel in my work, and therefore weeks may elapse before I even see letters. If you need more details, feel free to call in the evenings: (415) 341-4000.

## Product Review FT-290 R users report

Dave Witt, KA9GVI

After reading the Yaesu FT-290 R new product review in Worldradio, I decided to take the plunge into 2-meter sideband. The FT-290 R is an all-mode, full-featured, portable 2.5 watt, 2-meter transceiver.

For SSB, I have used the FT-290 R — both mobile and at home — in conjunction with a 30 watt amplifier. In two months of operation, my most valued contact was working a station 200 miles away while mobile. At home, with a homebrew 7-element beam, I have made contacts up to 375 miles thus far. The receiver is fantastic, equal in side-by-side comparisons with the new 25 watt all-mode rigs owned by some of my friends. As for 2.5 watts, contacts can be made, and many "on and off" linear comparisons prove that the budget-minded can get started on 2-meter SSB. A used amplifier can always be purchased at a later date.

For FM, this unit is super with 10 memories, and 2.5 watts is enough for most repeater work. For mobile operation, the FT-290 R controls are easy to use, and they are not difficult to memorize to allow for your eyes to remain on the road. Signal reports on the clarity and natural sound of voice have all been favorable. The only convenience that is missing is a reverse switch for monitoring repeater input.

With the use of the internal quarter-wave antenna and nicads, the rig becomes portable. This is a real plus when traveling to have a portable full-featured rig in your hotel room independent of bulky power supplies. For some real fun, try operating from the 20th story of a hotel, and for DX, try taping a Delta loop or dipole to the hotel window.

One word of caution: There is no industrial standard for the external DC supply plug connections. Yaesu supplies a DC power plug, so read the manual before making connections.

This is the least expensive all-mode rig on the market, and a good way to get started in 2-meter sideband. Hope to see you soon on 144.2 MHz — the national call frequency.

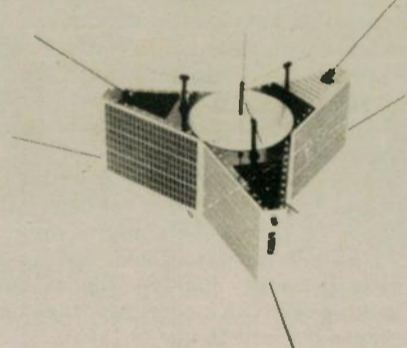


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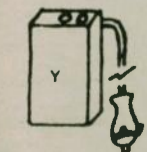


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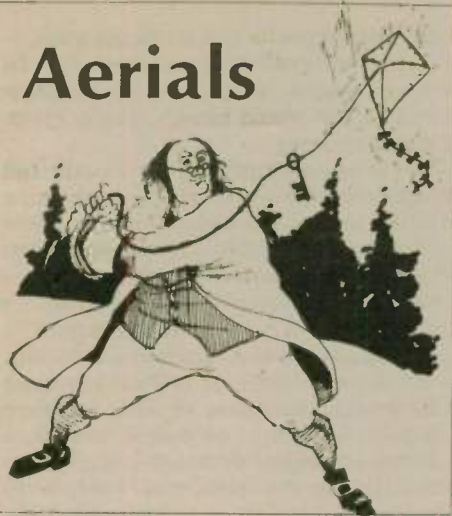


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# Aerials



I was called "unfair" and told that I had taken things out of context, and many people had called up the author to tell him what I did wasn't right. OK, I apologize.

It really isn't any business of mine if any amateur wants to dig a hole big enough to stand in, which will make absolutely no difference in his signal. Why should I care? Considering the number of hams who are "center-loaded", maybe a little physical labor would do them some good.

Worldradio got a couple of letters accusing me of taking "pot-shots". To those folks, all I say is, start your search for a "calibrated field strength meter that will give you the exact gain in decibels."

I've been told the author was offered space to rebut what I said, on a point-by-point basis, but declined to do so. And I think it's very nice that he has friends so loyal they would call him with support when he says an antenna tuner only "fools" the transmitter.

Pray tell, anyone, how is a transmitter

"fooled"? Does the antenna tuner go "Yoo hoo, transmitter, you think you are looking at 50 ohms but you are not! Ha Ha." Does the impedance wear a Halloween mask?

I shall present an analogy. Coming out of your wall is 120 volts. But the plates of your amplifier take 1,500 volts. To change the voltage, a transformer is used. The voltage change ratio depends on the winding ratio. Have we "fooled" the plates? Obviously not. It really does have 1,500 volts. Truly.

What else has happened? We also have an impedance ratio as the result of the turns ratio. Have we actually **MATCHED** the plate impedance, or have we "fooled" the plates?

That is why it is an absurdity when, in the August issue of QST, a writer said the transmatch "disguises" the impedance. (Does it wear a wig? A false moustache?) No. We actually have a transformer that **IS** matching. Thus the name transmatch. Such a box in some circles is called a "coupler" because it couples the power. The vast majority of hams weren't around when we had one winding of a coil on the output of the transmitter and another winding feeding the antenna. We called them RF transformers, and they matched the tube to the line.

I will tell you this. If you have an antenna tuner (that can handle the range), and you have a 7 to 1 mismatch at the point where the feedline meets the antenna, and there is a 100 ft. run of RG-8/U in between, you will lose one-fourth of an "S" unit over a perfect match at the top. Yes, a whole quarter of one "S" unit.

Oh, I'm sure there is some wailing and gnashing of teeth — all from those who refuse to look at the charts in the books. But then, I am not Moses trying to lead the tribe out of the wilderness. Thus, to spare Worldradio the abuse from people who will caterwaul, "How could you say something in QST is wrong?", I shall retire from writing this column. No more controversy. No more hurting others' feelings. No more truth getting in the way of cherished assumptions.

I'd like to thank the many who wrote in over the past two years. When you find yourself getting beaten out in the pileups by an HW-7, that's me. Adios and Ari ga to.

(With the greatest regret we see Kurt go. Iconoclasts are rare. The best to you, OM. We shall attempt to find someone to answer the antenna questions that come in.)

## Kurt N. Sterba

The publisher of Worldradio has informed me that the author of a book I reviewed in the August issue called him up to complain.

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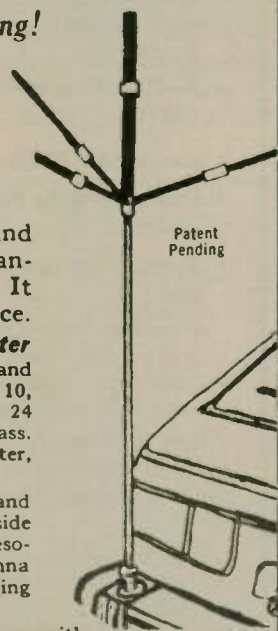
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## 12-year-old Extra

### Russ Brookover, NB5Z

No-code license! If you ask David Bonsal, NJ5S, of Duncanville, Texas, he would reply: "You gotta be kidding." David is a new amateur Extra Class, which is not unusual. However, in his particular case it was quite an accomplishment in that David is only 12 years of age, as of 12 March. He received his Novice ticket on 11 April, General Class on 21 June and amateur Extra Class 19 July.

He is a well-rounded and busy young man who works on his grandfather's ranch and maintains lawns in the neighborhood to earn money for ham gear. He enjoys fishing, sports, and is an avid



David Bonsal, NJ5S

reader. He is also an accomplished pianist and plays the saxophone in his school band.

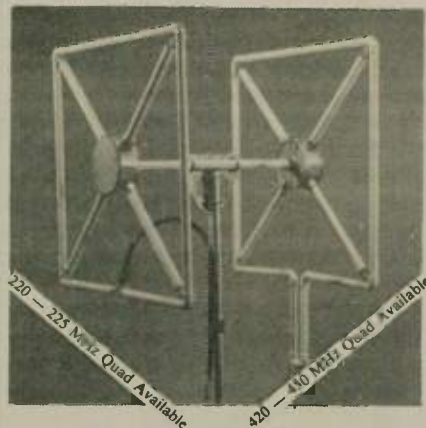
He has a Ten-Tec 544 transceiver with remote VFO running into a ground-mounted vertical antenna. David enjoys CW and phone, and can be found on the lower end of the 20-meter phone band at about 14.160 MHz.

He is extremely interested in electronics. However, David's plans are to pursue a medical career.

He entered the 7th grade this August at Byrd Junior High School, Duncanville I.S.D. David is the eldest son of Royce and Dorothy Bonsal.

Is there an amateur Extra Class younger than David? □

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Ron Flynn, KB8LU

Back in the January 1983 issue of *Worldradio*, in this column, I reported that two separate societies were being formed to represent SSTV — the USATVS and ISSS. After several months of checking, I reported on the USATVS in my May 1983 column. Since January, the ISSS has become IVCA. I was going to wait a couple months to update you on USATVS and IVCA, but many letters and phone calls with questions and complaints prompt this update.

### USATVS

My May report on USATVS concluded that the organization was formed as a marketing tool for a commercial publication and as an attempt by a few people to represent themselves as spokesmen for all of SSTV. I don't know how the circulation of the organizing magazine fared, but the attempt to control SSTV was a dismal failure.

At the 1983 Dayton Hamvention and since then, I have talked to more of the 50 people who were named to run the USATVS. Each confirms that he was never asked or consulted about joining USATVS prior to his name being published. To this date, none of the 50 USATVS advisors I have talked to have ever been consulted on any matter. Most feel that they and their names have been used for the personal gain of one individual.

The USATVS remains a one-man show, and that one man is trying to portray himself as a leader and spokesman for SSTV. The way he is going about it, however, does not represent the best interests of SSTV. SSTV has suffered greatly from this.

In a letter published in *Worldradio*, July 1983, the USATVS proposed to the ARRL that SSTV be sent on the upcoming shuttle mission. By reading the letter, you'd think it was their idea. Wrong! This is a case of someone taking another man's idea and trying to capitalize on it.

This idea was discussed on the air at least six weeks before Dayton. I was in two separate QSOs in which this was discussed. To the best of my knowledge, the idea of SSTV on the space shuttle originated with one of the members of the Johnson Space Center ARC, W5RRR. These guys work on the shuttle and with the astronauts for NASA. I think the idea was discussed and discounted by NASA before the USATVS proposal was sent to ARRL.

Why was the USATVS proposal letter to ARRL dated 20 April 1983, yet postmarked 18 May 1983? Dave Sumner, K1ZZ, caught this in the League's reply.

### IVCA is formed

For a couple of years, Dave Ingram,

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K4TWJ, has had a dream of forming an International Slow Scan Society. It finally got going earlier this year. Dave worked with Sam Mormino, WA7WOD, on the project. For various reasons, Dave bowed out and turned it over to Sam. Sam enlisted the aid of friends, the concept was broadened, and the International Visual Communications Association (IVCA) was formed.

IVCA is to encompass and represent all modes of visual communications: ATV, SSTV, RTTY, etc. These are the same modes the USATVS represents.

In February 1983, Jack Gray, W1REQ, and Kees PA0DXV started an Intercontinental SSTV Net (ISSTV). The purpose was to learn more about people from other countries via SSTV, and to generate new interest in SSTV. It was a visual, not technical, net. The exchange of pictures was a primary concern.

As summer approached, band conditions deteriorated and net control stations had other commitments. The ISSTV net became the IVCA net. Jack will be back as net manager after 01 October.

### IVCA update

Many of you have asked what is this IVCA, and what have they been doing since January? An organizational meeting was held in Texas last March, attended by about 12 people. A steering committee was formed to run IVCA in the interim. Five different people promised to send me the minutes of that meeting. None did. Who is doing what at IVCA and who is running it, is still a mystery to me. Lou Tepfer, W6FVV, gave a fine presentation about IVCA's goals at Dayton in April.

The IVCA net has been on 14.230 regularly every Saturday morning, and that is the subject of many letters and calls of complaint I have received. Saturday morning is the time many SSTVers turn on their equipment and want to send video. For many, the weekend is their only SSTV time.

Jack Gray, W1REQ's original concept of fun and video on his ISSTV Net has not held forth with the IVCA net. On the net, the roll is repeatedly called with mostly no shows. Members who do check in are repeatedly asked for reports which they never have. The net constantly pleads for materials for the *IVCA Journal*, to have been published in June, then scheduled for September. Lengthy IVCA business discussions are held on each net at a time and frequency when people want to send SSTV pictures. Precious little video is ever sent. People check in and lose interest and go away because they are not called on for video, or because others who check in late are called first.

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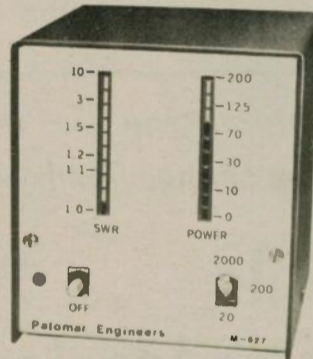
Published 12 times per year by Mike Stone WB0QCD  
P.O. Box H, Lowden, Iowa 52255 0408

The following is from the IVCA purpose sheet and applications: Combined nets will play an important part in — exchanging technical data and know-how; transmitting, photographing and storing this data for future use; aiding areas where data is necessary but not easily obtainable (missionary fields, medical emergencies, etc.); aiding underdeveloped countries to be able to educate in remote areas by visual communications.

### Conclusions

IVCA got started on the right foot and is about nine months old now. They are having the problems any new organization would have, enrolling new members and getting volunteer help to do the job

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they promised to do regularly and on time. There is no connection or association between IVCA and the new magazine, SSTV TODAY, which has been mentioned in this column.

For an organization supposedly covering all modes of visual communications, IVCA is concentrating almost entirely on SSTV. I think this is a mistake. For IVCA to become a success and to stop alienating more SSTVers, I think two things should be done very soon.

First, the IVCA net should be moved off 14.230. They should pick a frequency where ALL members of IVCA, representing ALL modes of visual communications, can meet, conduct their business, combine their efforts, and share their experiences without interfering with those who want to send SSTV pictures. This will free up 14.230 for video at one of its busiest times.

Secondly, IVCA needs one or more projects to begin work on immediately. They are flourishing with nowhere to go. A worthwhile project or two will give members something to do and rally behind. They would draw new members who are interested in philanthropic activities. The projects must include more than just the use of SSTV. Their main goal is to bring together the visual modes and this can only be done with some common purpose or project. It is not sufficient just to get together and ragchew.

As you read this in September, I will be attending an IVCA meeting in Chicago. At this meeting, the people who will be running IVCA will be chosen and the future course the organization will take will be decided. There is a lot of work to be done. I will report on this meeting in a few months.

## Pictures

(continued from page 6)

Moline area — who reported several times up to P3 signal strength levels with very recognizable details at the 1,000 ft. level! Communications continued from the balloon with all parties concerned talking directly with KA0AYC until near touchdown in Silvis, Illinois, at approximately 7:45 a.m.

Many public onlookers back at the launch site were able to continue viewing the race long after the balloons were out of sight, thanks to the Amateur TV Base facility.

A "live" video-feed into the WQAD-TV facility was offered by the ARV group, but was rejected due to technical difficulties involved and a misunderstanding of Amateur TV operations. Such a successful feed would have been the first known area hookup in the Quad-City TV market. Maybe next year?

### Highlights on tape

Full color videotape highlights of the 1983 Quad-City WQAD-TV "Hot-Air Balloon Race" via Amateur Television is included in the A5 Magazine Videotape Library #A5VT112 "Having Fun With Amateur TV".

Special thanks again to Ron Miller, KA0AYC, for his "blood, sweat and tears"; to John Orr, Operations Manager of WQAD-TV, Moline, Illinois for making it all possible; and finally, to Richard Drake for the "ride" in the *Lemondrop Special!*

Anyone interested in learning more about Amateur Television may write for a free sample issue of A5 ATV Magazine, P.O. Box H, Lowden, IA 52255. Please include \$1 for postage and handling.



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

## KA9FSQ CW Modem interface

A recently introduced state-of-the-art quality modem called the KA9FSQ CW Modem interface changes the RX tone into a digital pulse. This makes it possible for Amateur Radio operators to transmit or receive Morse code on their TRS-80 color computers.

A visual indicator (signal LED) is mounted on the unit for a visual indication that you're locked in on the signal, and it is being received.

While other units use a mechanical relay for TX, the KA9FSQ CW Modem uses an optoisolator, to keep keying voltages away from your computer and give a clean digital pulse to your transmitter. This unit can also be used with other CW programs with proper software modifications.

The KA9FSQ CW Modem is easy to use.

Just plug the cartridge into ROM-PAC slot on the side of your color computer, and connect two cables — one from your XMTR and one from your RCVR. Turn your computer on and CLOAD the program from tape. Run the program, and sit back and enjoy Color Computer Morse.



The price is only \$50 each, postage paid and it comes with a 90-day warranty. It is available from MITRONIX, 5953 N. Teutonia Ave., Milwaukee, WI 53209. Also available at "no charge" from this firm is a descriptive circular on their complete line of programs available for the KA9FSQ CW Modem Interface. □

## Amplifiers

Henry Radio unveiled five new amplifiers at the Dayton Hamvention this year. All five are remarkable new designs employing traditional Henry Radio amplifier quality, but with dramatic new circuits.

An exciting new model is the 2002A, a bright new rework on the popular 2002 2-meter amplifier. It uses the new Eimac 3CX800A7 power triode. The RF chassis uses a quarter-wavelength strip line design for a simple, straightforward and reliable design. Like its

## WARC Bands kit

Fox Tango Corporation announces a new kit which provides receive/transmit capability on all three WARC bands, for all models of the FT-101 except the ZD. While only the 10 MHz band has been authorized for use to date, not much additional effort or expense is required to add all the bands while the circuit changes for 10 MHz are being made. In addition to making the old '101 ready when the new bands become available, the added capability will increase the trade-in value of the set.

Based on a tried and tested design by G3LLL of RF Speech Processor fame, the WARC Bands kit is complete with all needed crystals, relay, switch, and detailed instructions for moderately easy installation. Available from Fox Tango Corporation, Box 15944W, West Palm Beach, FL 33416. Ask for FT-101 WARC Band Kit #4N; \$25 plus \$3 shipping and handling. □

## TS-430S cascade kit

Add another eight poles of crystal filtering to your TS-430S, for a total of 14 or 16 total poles of filtering (14 with Kenwood 16 with Fox Tango). The added filter is patched in before the Product Detector, and is in the receive mode only.

The following information was reprinted from the 1983 ARRL Handbook, page 8-46: Wide Band noise is generated within most IF amplifier chains. An improvement in receiver "noise bandwidth" can be realized by adopting the W7ZOI filter "tailending" scheme which calls for use of a second IF filter immediately after the last IF amplifier. The second filter can have a slightly greater bandwidth than the filter used ahead of the first IF amplifier. The tailend filter will reduce the wideband noise components.

Enjoy a lower noise floor, improved front end dynamic range and increased selectivity. The kit consists of a prewired tested PC board, with a 2.1 kHz filter installed, complete instructions, and minimum tune-up. This modification greatly improves the selectivity, and above receiver parameters.

The TS-430S is basically a fine radio with a great receiver front end, but its selectivity is no better than the TS-120-130 series. That is, until you add the above kit.

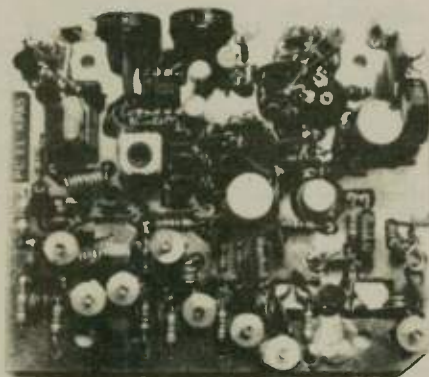
Stock TS-430S Cascade Kit 430  
Selectivity 2.4 kHz 6dB-4.4 kHz 60dB 2.0 kHz 6dB-2.6 kHz 60dB  
Noise floor 137dBm (.032uV) 140dBm (0.25uV)

A further performance increase will be noted when the optional 1.8 kHz filter is installed in 430, the results will be as follows; selectivity 1.7 kHz at 6dB - 2.2 kHz; noise floor 142dBm (0.18uV) operation. After installation, you will notice a quieter receiver, improved selectivity, and improved IF shift performance in all modes. After this modification, the TS-430S becomes a standard of comparison.

The TS-430S kit is available only through the UIRC (Users International Radio Club) for \$99 plus \$3 shipping. This kit includes all parts and instructions, and only requires connecting two coaxial lines and one wire into the 430. Installation time is about one hour, and requires good soldering skills and the knowledge of locating components on printed circuit boards.

For more information, contact UIRC, 364 Kilpatrick Ave., Port St. Lucie, FL 33452; (305) 335-5545. □

## THE "KREEPIE PEEPIE" ATV TRANSMITTER IS HERE!



### KPA5 1 WATT ATV TRANSMITTER BOARD FEATURES:

- ★ 1 watt pep RF output.
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- ★ Small 3.25 x 4"
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- ★ Mic input from a low Z dynamic and line level audio input found in most portable color cameras and VCRs provided.
- ★ Schematic and application notes supplied for typical external connections, packaging, and system operation.
- ★ Price delivered via UPS surface in the USA is only \$159. Technical class amateur license or higher required for purchase and operation.



### DO SOME OF THESE APPLICATIONS INTRIGUE YOU?

1. PORTABLE CORDLESS TV CAMERA. No heavy VCR to lug around or cable length limitation. You can even use your home VCR rather than a portapak. Now you can creep around and peep thru your camera more easily. Gives good pictures up to a mile with simple whip, and 40 miles using beams in flat terrain.
2. MOBILE OR PORTABLE ATV for public service events such as races, parades, marathons, etc. A Mirage D24N 40 watt amp can be added for greater mobile coverage or base operation. Mount in an airplane for CAP and rescue searches for an eye in the sky.
3. REMOTE CONTROL OF R/C AIRPLANES or ROBOTS. Fly with a camera in the nose to control as if you are in the plane. Likewise a robot can now be out of site of the operator.
4. REPEATER SITE SECURITY OR COMPUTER VIDEO DISPLAY. Turn on thru your repeater a camera at the site to see the area, weather, read meters, or if a computer is used, show status, play games, etc. by remote control. With all the new technology using TV displays, it is natural for hams to adapt these new products to transmission over the air. What applications come to your mind?

**WHAT IS REQUIRED FOR A COMPLETE OPERATING SYSTEM?** A TV set with 420-450 mHz to channel 3 downconverter, 70 cm antenna, and coax cable to receive. Package up the KPA5, add 12 to 14 vdc, antenna, and any TV camera, VCR, or computer with a composite video output. Simple, eh?



### ACCESSORIES:

Mirage D24N lw in/40 out all mode amp .....	\$179	J Beam 48 element 14 dbd gain antenna .....	\$79
TVC-2 downconverter board .....	\$49	450 ISOPOLE omni gain antenna .....	\$59
TVC-4 packaged downconverter with ac sup. ....	\$89	100' roll Saxton 8285 low loss coax .....	\$41

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We are a full line supplier of ATV products including transmitters, antennas, cameras, downconverters, Mirage amplifiers and much more. Our address is for mail order only, we are primarily a manufacturer not open to the retail public. We accept Visa and Mastercard, money orders and checks. Sorry no CODs or purchase orders. Californians only please include sales tax.

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predecessor, the 2002A offers 2000 watts input for SSB and 1000 watts input for CW. Because the tube provides more than 15dB of gain, only about 25 watts drive is required for full output. The 2004A will be identical to the 2002A except that it is set up for the 430-450 MHz band. This amplifier will use a half-wave strip line and offer all of the same specifications as the 2002A. This will replace the limited production 2004.

Not counted as one of the five new models is the 2002A (Special), designed for any frequency between 50 and 500 MHz. It is offered for non-amateur laboratory, scientific or communication use.

Model number three is the 1002A, a 2-meter amplifier with the same design as the 2002A, except using one 8874 tube for half-power specifications. The 1002A is rated at 600 watts PEP output and 300 watts continuous carrier output. It employs the same strip line design as the 2002A.

Model number four is the 1004A, a half-power version of the 2004A, again using the 8874. The 1004A will cover the 430 to 450 MHz band using half-wave strip line design.

The 1002A (Special) is for any frequency between 50 and 500 MHz and is only for non-amateur, scientific or communication use.

The fifth new unit is the Micro Classic, desktop 160 through 10-meter, 2000 watt PEP HF linear amplifier. It is also designed around the new Eimac 3CX800A7 power triode. However, production models will not be available in the immediate future.

The prices are as follows: Henry 2002A — \$1,095; Henry 2004A — \$1,295; Henry 1002A — \$795; Henry 1004A — \$895; Henry 2002A (Special) — \$1,495; Henry 1002A (Special) — \$995; Henry Micro Classic — \$1,395.

For more information or to order, write to: Henry Radio, 2050 S. Bundy Dr., Los Angeles, CA 90025. □



## 24/12-hour clock

The MFJ-103 is a new 24/12-hour, solid-state, digital clock. It features pleasant blue, 0.6" vacuum fluorescent digits that are easy on the eyes, yet bright enough to be seen all the way across a room.

This new clock has a battery backup to keep the clock on time during power outages. It requires a single 9 volt battery (not furnished).

It has an ID timer that alerts you every nine minutes after you tap the ID/snooze button. This nine-minute timer gives you a full minute to identify after the timer sounds and still be legal. It has a switchable seconds readout for accuracy. It can be synchronized with WWV.

The MFJ-103 has an alarm for schedule reminder or wake-up use. An alarm indicator tells you when the alarm is on.

For "observed time" timing, just start the clock from zero and note the ending of the event up to 24 hours. It has fast and slow set buttons for easy setting and a lock function to prevent mis-setting.

The clock operates on 110VAC, 60 Hz and is UL approved. The handsome, black plastic case with clear front measures 5" x 2" x 3".

MFJ provides a 30-day money back trial period. If you are not satisfied, you may return it within 30 days for a full refund (less shipping). MFJ also provides a one-year limited warranty.

The MFJ-103 is available from MFJ Enterprises, Inc. for \$34.95 plus \$4 shipping and handling.

To order call TOLL FREE 1-800-647-1800 and charge it to your Visa or MasterCard account, or mail order with check or money order to MFJ Enterprises, Inc., P.O. Box 494, Mississippi State, MS 39762. □

## 2M and 70cm radios

Trio-Kenwood Communications, a leading manufacturer of high-quality Amateur Radio transceivers, has just announced the addition of two new, ultra-compact models to their already extensive line of mobile transceivers.

The Model TM-201A, the 2-meter version, incorporates microprocessor-controlled operating features in a new slim-line design that is the ultimate in compact size and lightweight.

Outstanding features include 25 watts of RF output; dual digital VFOs; five memories; priority alert scan; memory and band scans;



lithium battery memory backup (est. five-year life); high-visibility yellow LED display; external speaker; and a 16-key autopatch UP/DOWN microphone. An audible "beeper" confirms operation of selected functions.

An optional FC-10 frequency controller allows remote control of frequency, VFO selection, memory recall, and memory channel selection. An optional TU-3 two-frequency tone encoder permits operation on repeaters having different sub-audible tones.

The TM-401A, a 70cm version, is similar in features and appearance, and is available with a maximum of 12 watts RF output.

Additional information on these two models may be obtained by contacting an authorized Kenwood dealer, or writing to Trio-Kenwood Communications, 1111 West Walnut St., Compton, CA 90220. □

# NEW PRODUCTS TINY 2 M POWER AMP MOUNTS ON HANDHELD

**7 to 20 watts out for 0.1 to 3 watts in. Carrier operated T-R switch. MFJ-2040, 144-148 MHz, \$79.95. MFJ-2045, 430-440 MHz, \$99.95. MFJ-2041, Portable Power Pack, \$89.95.**



This tiny MFJ-2040 2 meter power amplifier mounts on your handheld between your antenna and HT. You can also mount it separately with a cable. It provides 7 to 20 watts output for .1 to 3 watts input. T-R switching is carrier operated. Covers 144-148 MHz. Die cast aluminum body is 1 1/2 x 3 3/4 inches. Weighs about 6 oz. BNC connectors. Requires 12 to 13.8 VDC at 50 ma. for receive and 1 to 2 amps for transmit. MFJ-2045, \$99.95. Like MFJ-2041 but for 430 to 440 MHz. 4 to 15 watts output for .1 to 3 watts input. MFJ-2041, \$89.95. Portable Power Pack Batteries provides 120 minutes operation of MFJ-2040 or MFJ-2045 at 10 watts output. Has battery check meter. Has carrying case with belt loop and shoulder strap. 1 1/2 x 2 1/4 x 7 1/2 inches. Weighs 2 pounds.



## 2 Meter Handheld Wattmeter

**MFJ-840**  
**\$ 19 95**

MFJ-840 lets you accurately check the output of your 2 meter handheld transceiver. 5 watts full scale. 50 ohm load. BNC connector. 2x2 1/4 x 1 1/2 inches. Black.

## 2 Meter Handheld SWR/Wattmeter

**MFJ-841**  
**\$ 39 95**

MFJ-841. Connects in line with your 2 meter HT. Read SWR from 1:1 to 6:1 and forward power to 5 watts. Expanded scale. 50 ohm impedance. BNC connectors. 2x2 1/4 x 1 1/2 inches. Black.

## Cross Needle SWR/Wattmeter

**MFJ-815**  
**\$ 59 95**

New MFJ-815 Cross Needle SWR/Wattmeter lets you monitor SWR, forward and reflected power at a single glance in 3 ranges (20/200/2000 watts forward and 2/20/200 watts reflected) and SWR from 1:1 to 6:1 on a 2 color scale. Works from 1.8 to 60 MHz. Accuracy is ±10% full scale. Mechanical zero adjustment, push button range selection. All aluminum, black w/ brushed front panel. 6 1/2 x 3 1/4 x 4 1/4. SO-239 connectors.

## Antenna/Transmitter Switch

**MFJ-1700**  
**\$ 69 95**

If you have several coax feedlines and more than one rig, this MFJ-1700 gives instant selection of 1 of 6 antennas and 1 of 6 transceivers in any combination. Also plug in an antenna tuner, SWR/wattmeter, linear, etc., so that they are always in the circuit for any antenna/transceiver combination. Handles up to the full legal limit of 2 KW PEP for 50-75 ohm loads. SO-239 connectors. All aluminum, black with brushed aluminum front. 8x2x6.

## MFJ-1620 All Band Doublet

**MFJ-1620**  
**\$ 39 95**

Operate all bands 160 thru 10 meters including the new WARC bands with this new MFJ-1620 All Band Doublet. Use as doublet, sloper, inverted-V or as V-beam. Completely assembled. 130 ft. (hard drawn stranded copper antenna wire) but can be trimmed to fit your lot. Center fed with 100 feet of low loss 450 ohm balanced transmission line. You need only add rope to the ends and pull into position. Antenna tuner with balanced output required.

## New Antenna Isolators

**MFJ-780**  
**\$ 59 95**

**MFJ-782**  
**\$ 49 95**

New MFJ-782 HF/2 Meter Antenna Isolator lets you use a single coax line to feed a 2 meter antenna and any antenna below 30 MHz. The new MFJ-780 Antenna Isolator feeds separate 10, 15, 20 meter antennas (tri bander, etc.) Both isolators handle 2 KW PEP at 50/75 ohms. Negligible Insertion loss. Completely automatic with no relays, switches or other moving parts. Easy outdoor mounting (includes hardware). SO-239 connectors.

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## Minnesota QSO Party

The Minnesota QSO Party, sponsored by the Paul Bunyan Wireless Association, will be held from 1800Z, 15 October until 2300Z, 16 October.

Work stations once per band and mode. No repeater QSOs. Exchange signal report and QTH (county for Minnesota stations; state, province or country for others).

**Suggested frequencies:** CW — 40 kHz up from low end. Phone — 3890, 7230, 14280, 21375, 28675; Novice — 25 kHz up from low end of the band.

**Points:** Count 1 pt. for phone, 2 for CW. Minnesota stations multiply by sum of states (max. 50). Others multiply by total of Minnesota counties worked (86). **Bonus** — work 10 Minnesota counties and add an extra 100 points.

Mail logs by 1 November 1983, (include large SASE for results), to PBWA/Steve Scott, KC0UJ, 801-6th St., Staples, MN 56479. □

## 23rd Annual RTTY DX Sweepstakes

The Canadian Amateur Radio Teletype Group (VE3RTT) is sponsoring the 23rd Annual RTTY DX "Communications" Sweepstakes on 15-17 October. Operating time starts at 0200 GMT Saturday, and ends at 0200 GMT Monday. No more than 30 hours of operating is permitted for single-operator stations. Non-operating periods can be taken at any time during the contest. Multi-operator stations may operate the entire 48-hour contest period. Summary of operating times must be submitted with each score.

**Bands:** Use all bands 3.5, 7, 14, 21 and 28 MHz.

**Classifications:** 1) Single-operator, 2) Multi-operator (one transmitter) 3) SWL, printer.

**Messages:** To consist of RST, time GMT and zone.

**Exchange points:** All two-way RTTY QSOs with one's own zone count 2 pts. All other contacts will receive points as listed on CARTG Zone Chart. (Send SASE for chart.)

**Multipliers:** Country status as ARRL Countries List, KL7, KH6, W/K, VE/VO, VK districts counted as separate countries. Stations not to be counted more than once on any one band. Additional contacts counted on different bands. One's own country counts as a multiplier.

**Scoring:** Total exchange points X number of countries contacted X number of continents (max. 6). 200 bonus pts. for each Canadian contact made on all bands added to final score.

**Logs:** Logs to contain band, date, time GMT, RST, call signs, exchanges sent and received. Use separate log sheet for each band. Multi-operator logs must be signed by each operator.

Send SASE or IRCs to CARTG for log sheets and zone charts, etc. Logs must be received before 1 January 1984 to qualify. Send logs, time summary and scores to: Canadian Amateur Radio Teletype Group, VE3RTT, 85 Fifeshire Road, Willowdale, Ontario, CANADA M2L 2G9.

### Contest awards

Top 10 scores will receive engraved plaques sponsored by the RTTY Journal and the CARTG.

**Canadian High Score:** Plaque — President CRRL Award; **USA High Score:** Plaque — RTTY Journal; **High score for worldwide "Iron Monster" operation:** (teletype machines): Plaque — West Coast Canada Award — VE7AKW; **Green RTTYer Award** (first RTTY Contest) — Sidney Burnett Memorial Plaque; **Most two-way RTTY contacts with Canadian**

**stations, all bands:** Plaque donated by VE2JR; **Multi-operator high score:** Plaque given by a CARTG member; **SWL Printer Award for high score:** Plaque — CARTG

### Notes:

Multi-operator stations can operate for the full time of the contest (48 hours). Single operators are allowed only 30 hours of operating time. Time summary must be included with logs.

Multi-operators will be required to sign their logs, indicating the names of all operators.

Give all info possible. For some awards, it is necessary to have info on gear used, etc. State if you are a "Green RTTYer" (never been in RTTY contest before), and plainly mark your name, call sign, QTH and zone number.

### Comments made after 1982 Sweepstakes

**OK3CNJ:** Conditions good and tnx for RTTY experience.

**JA6GIJ:** Looking for Zone 2, but no copy. Good luck!

**VK2SG:** Have polished up my fingers and will be back next year for sure. A darn good job!

**IS0VSA:** New on RTTY... about four or five months; propagation not very good in first part of contest.

**VE2AXO:** Did not make the million mark... but still had a good time. Wish we had more Canadian and U.S. stations on 80.

**K1LPS:** EA8's, which would have been easy Africa multipliers, were conspicuous by their absence. Africa was elusive as always.

**VE7YB:** Managed to work the six continents, but not too much on from Europe or Australia.

**DL1VR:** Conditions excellent. I used 50 percent low power and it was a lot of fun to work so many stations. Until next time! □

## Pennsylvania QSO Party

The Nittany ARC of State College, Pennsylvania, announces the 26th Annual Pennsylvania QSO Party, to be held 22-23 October. Operating periods will be from 1600Z, 22 October to 0500Z, 23 October, and from 1300Z, 23 October to 2200Z, 23 October.

**Exchanges:** RST + three-digit sequential serial number plus county and/or ARRL section. Stations on county lines will give out one number; counties will count as separate multipliers for station worked.

**Modes:** Phone and CW. Station may be worked once per mode on each band. CW QSOs must be in CW sub-bands only. Repeater QSOs are NOT permitted.

**Frequencies:** SSB — 3980, 7280, 14.280, 21.380, 28.580; CW — 40 kHz up from bottom; Novice — 10 kHz up from bottom of sub-band; 160 meters — 1810 CW at 0400Z, 1835 SSB; WARC bands — new ones NOT permitted.

**Scoring:** Pennsylvania (PA) stations — 1 pt. per SSB QSO; 1.5 pts. per CW QSO; 2 pts. per 80/160 CW QSO. **Multipliers** — ARRL sections + PA counties + maximum of 1 for DX (142 total). **Out-of-state** — points as above X counties. Mobiles may be reworked when they change counties.

**Logs:** Logs must be submitted on official form or on reasonable duplicate. Entries with 100 QSOs or more must include check sheets. Illegible logs will be treated as "check logs." 100 pts. will be deducted for each dupe QSO removed by checkers.

**Class of entry:** There are only four classes of entry — 1) Single-operator (no assistance allowed); 2) Mobile (fully mobile — multi-op OK); 3) Multi-single (multi-operator, single-transmitter; no spotting receivers); 4) Multi-multi (anything goes).

**Awards:** Plaques to — Top PA, Top East PA or West PA, Top Out-of-state, Top Multi-single, Top Multi-multi, Top Mobile. **Trophy** — to club with top aggregate score from membership; revolving trophy. **Certificates** — Winner in each county, each section provided a minimum of 20 QSOs made. Winner in each club (minimum of three entries).

**Special awards:** To first station with — 150,000 pts. (single-operator); 2,000 QSOs (any class); 200,000 pts. (multi-single); 500 QSOs (out-of-state); 1,000,000 pts. (club competition);

67 counties in the contest.

**Pennsylvania counties (67 total):** Adams, Allegheny, Armstrong, Beaver, Berks, Bedford, Blair, Bradford, Bucks, Butler, Cambria, Cameron, Carbon, Centre, Chester, Clarion, Clearfield.

Clinton, Columbia, Crawford, Cumberland, Dauphin, Delaware, Elk, Fayette, Forest, Franklin, Fulton, Greene, Huntingdon, Indiana, Jefferson, Juniata, Lackawanna.

Lancaster, Lawrence, Lebanon, Lehigh, Luzerne, Lycoming, McKean, Mercer, Mifflin, Monroe, Montgomery, Montour, Northampton, Northumberland, Perry, Philadelphia, Pike.

Potter, Schuylkill, Snyder, Somerset, Sullivan, Susquehanna, Tioga, Union, Venango, Warren, Washington, Wayne, Westmoreland, Wyoming, York, Erie.

**ARRL Sections (74 total) + DX (total 1):** 1 — Ct., EM, Me, NH, RI, Vt., WM; 2 — ENY, NLI, NNJ, SNJ, WNY; 3 — EPa, Del, MDC, WPa; 4 — Ala., NFla, GA, Ky., NC, SFla, SC, TN, Va., W.I.; 5 — Ark., La, MS, NM, NTex., OK, STex; 6 — EBay, L.A., Org., SBar, SCV, SDgo, S.F., SJV, SV, KH6; 7 — AZ, Ida., Mont., Nev., Oreg., Utah, Wash., Wyo., KL7; 8 — Mich., Ohio, WV; 9 — Ill., Ind., Wisc.; 0 — Colo., Iowa, Kans., Minn., Mo., Nebr., NDak., S.Dak.; VE — VE1, VE2, VE3, VE4, VE5, VE6, VE7, VE8; DX.

**SEND LOGS TO:** Douglas R. Maddox, W3HDH, 1187 S. Garner St., State College, PA 16801, by 25 November 1983. □

## YL Anniversary Party

The CW portion of the YL Anniversary Party lasts from 1800 UTC, Saturday, 22 October, to 1800 UTC, Sunday, 23 October. Phone portion lasts from 1800 UTC, Saturday, 5 November, to 1800 UTC, 6 November.

**Eligibility:** All licensed women operators throughout the world are invited to participate. YLRL members only are eligible for the cup awards. Non-members will receive certificates. Only YLRL members are eligible for the Corcoran and Hager awards.

**Procedure:** Call "CW YL".

**Operation:** All bands may be used. No cross-band operation. Net contacts, repeater contacts, and contacts with OMs do not count. A station may be counted only once in each contest for credit.

**Exchange:** Station worked, QSO number, RS or RST, ARRL section or country. Entries in log must also show time, band, date, and transmitter power. (Please know your ARRL Section. A section list is available with SASE to YLRL vice president.)

### Scoring:

A) CW and phone will be scored as separate contests. Submit separate logs for each contest.

B) All YLs within an ARRL Section score 1 pt. for each QSO with another station located within an ARRL Section. Score 2 pts. for each contact with a station not located within an ARRL Section (i.e., DX). Definition of DX: All stations not located within an ARRL Section. DX YLs shall score 2 pts. for each contact with a station located in an ARRL Section and score 2 pts. for each contact with another DX station. Multiply the number of contact points by the total number of different ARRL Sections and countries worked.

C) Contestants running 150 watts or less on CW and 300 watts PEP or less on SSB, at all times, may multiply the results of (B) by 1.25 (low-power multiplier).

**Logs:** All logs must show ARRL Section or country to qualify for awards. Do not send carbon copies of logs. Please print or type. Logs must be signed by the operator, and no logs will be returned. Remember to file separate logs for each contest.

**Logs must show claimed score, be post-marked by 16 November 1983, and received no later than 17 December 1983, or they will be disqualified. Send logs to:** Rose Ellen Bills, N2RE, 17 Craig Place, Pennsville, NJ 08070.

**Duplicates:** For each duplicate contact that is removed from the log by the vice president, a penalty of 3 additional and equal contacts will be exacted.

### Awards:

A) **Highest CW score** — Gold Cup YLRL member. **Highest phone score** — Gold Cup

YLRL member. First, second, and third place CW and phone score (not combined) will receive a certificate. Highest CW log and highest phone log in each U.S. and VE call district and country will receive a certificate.

B) **Corcoran Award:** A plaque given for the highest combined CW and phone score for YLRL members within an ARRL section.

C) **Hager Award:** A plaque given for the highest combined CW and phone score from North and Central America, including the Greater and Lesser Antilles, for YLRL DX members only. A duplicate plaque given for the highest combined CW and phone score from any other part of the world, for YLRL DX members only.

### Suggested contest frequencies

Several members have requested that spotter frequencies be designated to make it easier to find participants in YLRL contests. The following list of frequencies has been compiled. Factors considered were Novice/Technician availability, avoidance of known interference to other activities (i.e., RTTY and SSTV calling frequencies), and similar frequency spreads on the different bands.

Please study the list and make any recommendations for change or suggestions to the YLRL Vice President, Marilyn Backys, WB9TDR, 3939 N. Firestone Dr., Hoffman Estates, IL 60195. Contest contacts would not be limited to these frequencies; they would be listed only to help contest participants locate other contesters.

**CW:** 80 — 3.540-3.570, 40 — 7.040-7.070, 20 — 14.040-14.070, 15 — 21.180-21.210, 10 — 28.180-28.210.

**SSB:** 80 — 3.940-3.970, 40 — 7.240-7.270, 20 — 14.280-14.310, 15 — 21.280-21.310, 10 — 28.580-28.610. □

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## Connecticut

The TRI-CITY ARC Auction will be held Saturday, 29 October, at St. James Parish Hall, Poquetanuck, Connecticut, 1 1/2 miles east of Rte. 12 on Rte. 2A. Set-up at 9:00 a.m.; auction 10:00 a.m. until sold out. Food available. Admission free. Bring your equipment to be auctioned.

Talk-in on 146.73, 67 or 94 repeaters. For more information, call Tom Scott, WA2RYV, at (203) 848-9670.

The SOUTHCENTRAL CONNECTICUT AMATEUR RADIO ASSOCIATION (SCARA) will hold its 4th Annual Electronics Show and Flea Market on Sunday, 13 November, in the North Haven Recreation Center on Linsley Street, North Haven, Connecticut.

The show will feature the latest in Amateur Radio, computer, domestic electronics and software. Free technical seminars will include state-of-the-art ATV, and easy homemade PC board techniques. The Connecticut Section ARRL leadership will be present for information and related programs. New this year is a Christmas/Channuka gift bazaar featuring unusual non-electronic gifts for the entire family at greatly reduced prices. Bring the entire family and their gift lists for a fun day for all.

Admission for all events all day is \$1.50; children under 12 free with an adult. Tables are \$7 in advance, \$10 at the door, but are available only in advance for the gift bazaar. Doors open at 8:00 a.m. for vendors, 9:00 a.m. to 3:00 p.m. for the show. Food will be available all day. A bake sale and raffle will also be held.

Checks should be made payable to SCARA and sent to: Ed Goldberg, WA1ZZO, 433 Ellsworth Ave., New Haven, CT 06511. Send SASE for confirmation, directions, etc. Call (203) 773-0646 (home) or (203) 852-7876 (work) for further information.

## Georgia

The ALFORD MEMORIAL RADIO CLUB, INC. is hosting its 11th Annual Hamvention at beautiful Stone Mountain Park, Stone Mountain, Georgia, 5 November.

Hours are from 9:00 a.m. to 5:00 p.m., Saturday and from 9:00 a.m. to 3:00 p.m. Sunday. FCC exams, seminars, dealers, gigantic flea market, free parking. Admission fee of \$3 includes Saturday night cookout for the entire family and variety entertainment. Camping and other amusements available at the park.

Talk-in on 146.16/146.76. For further details, send SASE to Lew Howard, W4LHH, 4132 Creek Stone at, Stone Mountain, GA 30083, or call him at (404) 292-5469.

## Illinois

The CHICAGO CITIZENS RADIO LEAGUE announces its 2nd annual hamfest, to be held Sunday, 16 October, 7:00 a.m. to 2:00 p.m., at the American Legion Post #21, 6040 North Clark Street, Chicago, Illinois.

The main prize will be an ICOM 3AT. Tickets are \$1 in advance; \$1.50 at the door; \$2 per table.

For information, write to: John Ibes, KA9FUI, 2934 N. Mobile, Chicago, IL 60634, or Fred Marlette, KA9FUO, 1851 W. Chase, Chicago, IL 60626.

**If a foreign amateur visits your area, do a picture story for Worldradio**

## Maryland

The COLUMBIA AMATEUR RADIO ASSOCIATION will hold its 7th Annual Hamfest at the Howard County Fairgrounds (15 miles west of Baltimore, just off I-70 on Rt. 144, 1 mile west of Rt. 32) on Sunday, 23 October, 8:00 a.m. to 3:30 p.m.

Admission is \$3. Indoor tailgating and tables are \$6 additional. Outdoor tailgating is \$3 additional. Food is available. Prizes.

Talk-in on 147.735/135 and 146.52/52. For table reservations and information write: Ed Wallace, K3EF, 9905 Carillon Dr., Ellicott City, MD 21043.

## North Carolina

The 3rd Annual Maysville Hamfest will be

held on 9 October, at the City Park in Maysville, at the intersection of Highways 17 and 58. Activities start at 8:00 a.m.; there is no admission charge. A barbecue dinner will be served on the grounds at noon. Large flea market, ample parking. Many prizes, entertainment for the ladies.

Talk-in on 146.085/685 and 143.52.

For more information, contact Tom Graham, WB4WII, Maysville Hamfest Club, Inc., Rt. 1, Box 80-62, Swansboro, NC 28584.

## Tennessee

HAMFEST CHATTANOOGA and the Tennessee State ARRL Convention will be held 22-23 October at the Chattanooga State Technical Community College, Amnicola

Highway, Chattanooga, Tennessee.

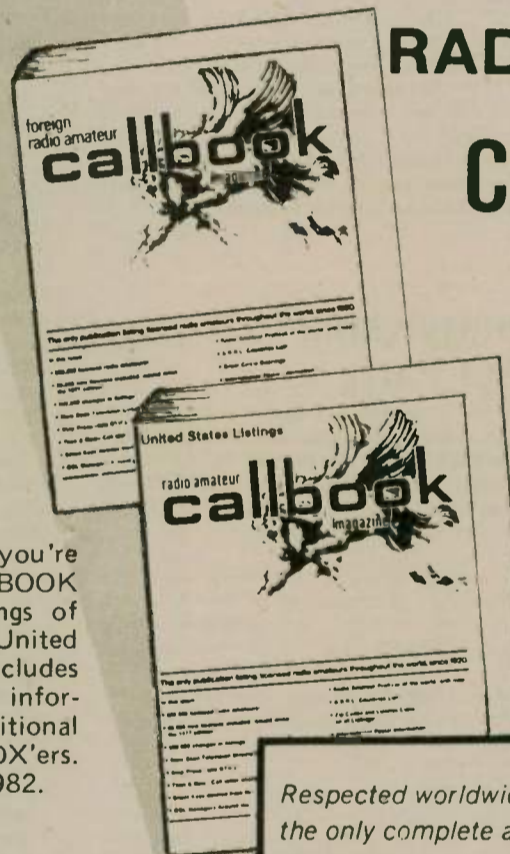
Top prizes will be awarded; you don't have to be present to win Sunday main prizes, but must be present to win Saturday main prize.

Other activities will include forums, contests and non-ham activities. College cafeteria will be open, serving breakfast and lunch both days. Ramada Inn — East Ridge (I-75 and U.S. 41) will be offering special hamfest rates. A hospitality party will be held Saturday, 22 October, at the Ramada Inn. Phone (615) 894-6110 for reservations, and be sure to ask for "Hamfest Chattanooga" rates.

Inside dealer area and both inside and outside flea market spaces are available. For further information contact: HAMFEST CHATTANOOGA, P.O. Box 3377, Chattanooga, TN 37404; or phone Nita Morgan, N4DON (404) 820-2065.

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Worldradio (USPS 947000) is an international conversation. You are invited to take part. Our newspaper is written by its readers.

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Our readers are participants — an alliance of active radio amateurs who are concerned with reality, who use radio as a communications tool. We ask your cooperation in helping us develop the skill, quality and full potential of Amateur Radio.

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## WANTED: amateur license plates

Recently I began an interesting sidelight to my Amateur Radio hobby. I am attempting to collect a set of all 50 state license plates bearing Amateur Radio call letters. Presently I have "confirmed" 36 states and four Canadian provinces with ham license plates, although several of the one-and-only examples I have are in rather bad condition. (Mostly from states where they know what winter is!)

If you have an old, worn out, no longer used, unwanted license plate with your call letters on it, or with *anybody's* call on it, I'd like to have it, trade for it, or even — if all else fails — buy it from you. Frankly, I don't care *what* state it's from, as if it is a state I already have, I can use it for trading purposes with other similarly nutso collectors of ham plates out there. Yes, there are other wackos who are trying WAS with license plates. Some have done it!

Honestly, there *is* a purpose for all this. In my position here at the Arizona Department of Public Safety/Arizona Highway Patrol, we present an annual ex-

hibit at each of the 15 county fairs held in Arizona, and the *big* deal of the fair circuit — the Arizona State Fair, in late October. My intention is to prepare a display of the 50 ham plates and combine this with an explanation of how ham radio operators work together with law enforcement and emergency service personnel.

Can you help? If you don't have a ham call plate, how about a friend who might? Please take a moment and try to think of someone who would be willing to part with a plate to help this silly pursuit.

If you can help, please write. I will pay the postage if the plate is a gift, or if it is a cash deal, I'll pay anything reasonable for the thing. If you can't help, just write anyhow; I'll be glad to hear from you.

Fraternal thanks . . .

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Carl Zelich, AA4MI

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The FCC has granted a Special Temporary Authorization to the Spaceport ARC, K4GCC, to transmit shuttle mission progress on 146.94 MHz. The station is maintained on a voluntary basis by

Kennedy Space Center employees.

This waiver to the Federal Communications Act has been granted, in the *public interest*, to provide an awareness of NASA terminology and communications procedures to Amateur Radio operators.

All listeners are invited to send comments to: K4GCC, P.O. Box 672, Merritt Island, FL 32952. Letters received will be used as evidence for future requests to the FCC that this activity served the public interest. □

## Space antenna

The STS-9 antenna to be used by Dr. Garriott, W5LFL is a copper ring, approximately 9 inches in diameter. This is formed from 1/4-inch copper and is a split ring at the ends. One end of the circle is grounded in the typical DDRR configuration, and a few inches from this same end the center pin of a type N connector is connected to supply the RF. The "N" connector enters through the rear of the box. The other end of the antenna circle is insulated from ground. This antenna is enclosed in an aluminum box approximately 24"H x 24"W x 4"D. There are flanges attached to the edges of the box.

The window of the orbiter has Velcro strips that normally provide attachment of a sun visor. The window is in the ceiling of the orbiter. These same strips will be used to mate with Velcro "C" clips that are mounted on the box flanges.

The antenna will emit vertical polarization, as do all DDRR antennas, but the important objective is to get the RF out of the vehicle. The position of the orbiter, of course, will determine where vertical is in respect to Earth.

To reduce any RF leakage into the orbiter, wide mylar tape strips approximately 1 1/2 feet long are taped in a radial pattern to function as RF chokes. These are attached to the flanges and the panels around the window from the flange.

— Eric Olseen, W4BNQ; J.D. Collner, W4GNC; and Carl Zelich, AA4MI. □

## Delayed

(continued from page 1)

trum was chosen to minimize interference to and from other ongoing use of 2 meters.

The current schedule calls for lift-off on 28 October, with the Amateur Radio portion of the mission starting three days later. Tnx ARRL.

— Westlink Report □

## Mixed-up calls

Those who read the Silent Key article about Eric Shalkhauser in our August issue, page 11, may have wondered about Ero Erickson's call, in the credit given at the end of the article. His *present* call is KA9DYS, and his *ex-call* is W9HPJ, not W9HRJ. Sorry about that, Ero! □

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## VK visit postponed

Gil Sones, VK3AUI, who was scheduled to arrive in Los Angeles on 8 September, has had to postpone his two-month U.S. visit until next year. He was unexpectedly taken ill with chronic diabetes.

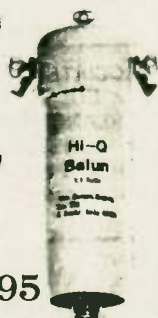
Gil is editor of *AMATEUR RADIO*. His itinerary had been printed on page 2 of the September issue of *Worldradio*. —Ken McLachlan, VK3AH, DX Editor, *AMATEUR RADIO* □

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# 31st Annual Pacific Northwest DX Convention

## John Minke, N6JM

All roads lead to Seattle — only I had to take the train, as my wife and daughter were on tour with the family car and we would meet in Seattle following the convention. Being an old railroad buff, I chose to take the train in lieu of flying to Seattle.

This year's convention was hosted by the Western Washington DX Club during the last weekend of July at the Double Tree Plaza Hotel at Southcenter, near the Seattle-Tacoma Airport.

From Sacramento, I left on Amtrak's #14 — the *Coast Starlight* — about 11:00 in the evening, Thursday, 28 July. Surprisingly, the train was crowded, which was unusual for that time of the week. I knew it would be a long trip, but the Oregon Cascades and the beer car (lounge) would make up for it. It was well past sunrise when we headed north out of Klamath Falls. The trip over the Cascades was most enjoyable with perfect weather.

Arriving at Seattle and getting to the convention site was another problem. As I'm a cheapie and didn't feel like paying for a taxi out to the hotel, I took the local Metro System bus #150, only a short walk from the King Street Station. I had to wait about 15 minutes for the bus. On the bus I met Reg Beck, VE7IG, who holds the prestigious Five-Band WAZ, certificate #52. Reg had come down from British Columbia.

After checking in at the Double Tree Inn, I went across the street to the convention hotel and met the registration committee. A quick bite to eat at the local McDonald's and I was back at the hotel visiting the Western Washington DX Club's hospitality room, where I met several of the Pacific Northwest DX'ers I had met last summer in Richmond (Vancouver). There I made arrangements with Bob Lane, KB7WD, who was the official photographer for the convention. Bob, who was formerly WA7BSQ, G2BYA and WQ5GC, is responsible for all the pictures that accompany this article.

## The sessions

The first two sessions of the convention were technical. The first was a presentation on computers by Jim Hadlock, K7WA, president of the host club.

The second session, the Antenna Forum, was conducted by Jack Riggs, N7AM, who was assisted by Burt Boyd, W7IIT, and Jerry Repine, NC7U. Two antenna systems were presented with the first on 80-meter vertical Yagi-type antennas. Yagi, the Japanese inventor of the famous antenna, originally used vertical antennas in his design. The driven



The British Columbia DX Club was well represented in Seattle with (standing, left to right): Reg Beck, VE7IG; Art Sillett, VE7WG; Ken Thompson, VE7BXG; Tom Wong, VE7BC; Pete Pel, VE7DLM; and Allan Buckshon, VE7SZ. (Kneeling) Henry Thel, VE7WJ, and Vic Waters VE7ALR. Vic was last year's Master of Ceremonies in Vancouver. (photos by Bob Lane, KB7WD)

element is in the center with the reflector and director elements around the perimeter. The design used by Jack was documented by slides showing all stages of construction. Constructed of irrigation pipe and supported with polyester guy lines, this was no quickie project. Jack found that he had to use vacuum relays for switching the elements, as other types of relays did not work.

The installation was finally completed, and the antenna system worked fine. Unfortunately, while Jack was operating in a DX contest one stormy evening, his wife came into the shack and told him he'd better go outside, as something was happening. Jack didn't hear anything, as he was busy wearing headsets and oblivious to the outside world. Something happened all right. It took him six months to clean up what was left of the antennas. Of course, he rebuilt the system.

With vertical antennas, a good set of ground radials is a must. Jack had spent two summers on his hands and knees installing those ground radials. The antenna system was tuned by measuring signal strength with an FT-7 in a van three miles away. The maximum gain was 11.5dB, with a front-to-back ratio of five "S" units.

What this California DX editor didn't know was that there were only about six evenings per year on openings into Europe on short path (30 degrees) on 80

meters due to the aurora. Southern California has 10 times that many openings. They have to rely on long-path (usually 225 degrees, and depending on the MUF charts). Therefore, they refer to themselves as the "Sufferin' Sevens".

The second phase of Jack's presentation was tri-band quads. Of course, quads are not as impressive as 80-meter Yagis. The unusual gamma match that Jack used was constructed of a drain pipe — the type found under your sink.

A DX'er is proud of his station and antenna system, and members of the Western Washington DX Club are no exception. A selection of slides of members'



The Master of Ceremonies, Mr. Family Hour — Bill Bennett, W7PHO



Bob Morse, KR7G, chaired the DX Forum. Bob was filling in for Jack Bock, K7ZR, who was seriously injured just prior to the convention.

stations and antenna systems was prepared and presented by Kurt Heidergott, K7UU. As in most DX clubs, the type of station and location for the DX'er was not typical. From the slides shown, one WWDXC DX'er was even proud of his car, as there were more pictures of the car than his station.

Over in the adjoining meeting room, N7ML discussed the latest products of Advanced Electronic Applications (AEA) of Lynnwood, Washington. This is the outfit that offers the "Moscow Muffler" Woodpecker Blanker.

Those DX'ers who did not run out for lunch at noon had the chance to view the movie *To Win The World*, produced and directed by Peter Bizlewicz. This movie — an eastern attempt to match those of Dave Bell, W6AQ — featured the million-dollar contest station of Hazard "Buzz" Reeves, K2GL, at Tuxedo, in the heart of the Ramapo Mountains in lower New York state. The movie is written in language to impress the amateur and non-amateur alike.

The main point of the movie is the story behind the multi-multi (many operators and more than one transmitter) contest operation in a recent DX contest. The call used, N2AA, belonged to Gene Walsh. The movie shows several of the contest operations and the typical end of contest of comparing notes with the contenders. Unfortunately for this group, they were



Jack Riggs, N7AM, discussed the design and installation of his 80-meter vertical Yagi antenna.

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beat out by the W2PV group, up north in Schenectady.

This movie is quite interesting and worth viewing. It can be purchased outright or rented, either video cassette or 16mm print. Contact Peter Bizlewicz, 1209 Pines Lake Drive West, Wayne, NJ 07470; (201) 835-8054.

Later in the evening, I was talking to a couple of the "Sufferin' Sevens" contest types and they said the reason that group would never win is that they don't talk fast enough. Well, I don't know about that. Did you ever see a New Yorker when he gets mad?

John Kanode, N4MM, came out from Virginia to give a presentation on the operation of P42E, where a world record was set in the CQ World Wide DX Contest last November. This was similar to that of last year's Curacao topic: "What was it like to operate P41C?" presented by Stu Hoar, VE7ZZ/N7ZZ.

Tom Wong, VE7BC, came down from Vancouver to present the convention with a slide show of one of his recent trips to China.

Those of you who may have worked Tong at BY1PK in Beijing, might be interested to know he is the Station Master. Tom says that the station is kept under tight security with a steel door and two padlocks. The YL operator, Jiao, is Tong's wife.

In addition to a few shots of the two active stations, BY1PK and BY8AA, Tom showed us that of BY7RJ, located near Canton. This station is soon to be activated.

I haven't seen a DX convention yet without a Contest Forum, probably since a good many DX'ers are also contesters. This year's Contest Forum was conducted by Steve Morris, K7LXC. The forum was divided into three parts: state-

of-the-art receivers, tri-banders and contesting.

The state of the art on receiver design was a repeat of the presentation on Noise Floor Measurement at last April's Visalia DX Convention. This was discussed in a recent issue of *Worldradio*.

The material given on tri-banders was taken from "ARP" (Amateur Radio Profiles), where several manufacturers' tri-band beams were compared as to broadbandedness, front-to-back ratio, construction and manufacturer-customer orientation.

Bob Turner, AG7M, a member of the Contest Advisory Committee, then discussed what was happening with the latest in ARRL contests. The results of the committee on some of the recent proposals were as follows:

- 1) Separate Guest Operator Category (Rejected)
- 2) QRP High-band Category (8 for and 8 against)
- 3) District of Columbia as a separate multiplier (Rejected)
- 4) Double points for CW contacts in the 10-meter contest (Passed)
- 5) Hawaii and Alaska to count as Stateside (Rejected). The proposal to be resubmitted Alaska only and not include Hawaii.

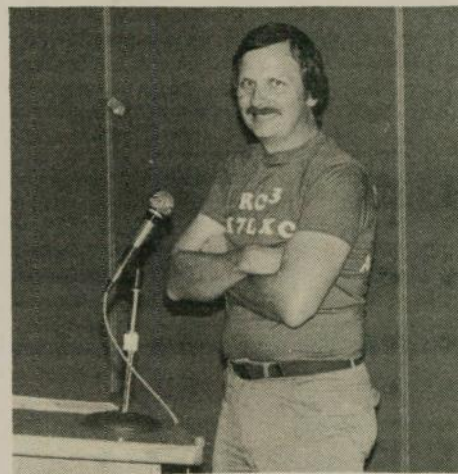
Other proposals and items that may come in the future to be discussed by the committee include:

- 1) The desire to limit contests to a certain portion of the band
- 2) Change the point values for CW contacts in Sweepstakes, Radiosport and other mixed mode contests
- 3) Contest Ethics Code (W0UA and K5ZD have submitted separate codes)
- 4) Change the off-times for Sweepstakes
- 5) A 160-meter SSB contest
- 6) Time limit for single-operator stations in DX contests

7) No stateside stations be allowed to call "CQ DX" in the DX Contests

8) A Short-Timer Contest (10 or 12 hours)

9) How to control the Contest QRM.



The Contest Forum was conducted by Steve Morris, K7LXC.

The final session for the day was the DX Forum, hosted by Bob Morse, KR7G, filling in for Jack Bock, K7ZR, who had seriously injured himself working in his yard earlier. On board supporting him were John Kanode, N4MM; Terry Baxter, N6CW; and Jim Hadlock, K7WA.

Based on the highly successful Visalia DX Convention, the question "How do you break a pileup?" was asked of each. John N4MM responded with: take a look at yourself and what you have. Use timing. Listen!

Terry N6CW responded with: listen to what you are told, with Jim K7WA adding: look and find the people the DX station is working and figure what he is doing.

One of the unfortunate situations that happens now and then is that a DX station goes on the air and is worked by many, but without the proper documentation to support the operation. John suggested that these stations be given guidelines for obtaining the proper

documentation prior to operation from the desired DX location.

A feel was put out for a single band endorsement to DXCC, where Jim K7WA responded that he liked the idea, since he does not have a high-power station and DXCC on 80 meters is almost hopeless without an amplifier. (He was referring to 5BDXCC.) The group was asked how they felt about a QRP endorsement to DXCC but there was a poor response to that one and it was dropped.

Terry was asked for his comments as a QSL manager, as he was the QSL manager for one of the recent St. Peter and St. Paul Rocks DXpeditions. Terry said to get the call correct, as there was more than one call used in that operation. All information should be on one side of the card; it is important that your call be on the same side as the log information. Use self-sealing envelopes, as it gets tiresome licking all those non-self-sealing types. And if the DXpedition is an IDXC or NCDXF-sponsored operation and you are a member, so state on your card and yours will get answered first. It is perfectly reasonable that those DX'ers who help finance the DXpedition should get served first.

The subject of Peter Island came up as to why it wasn't made a new DXCC country before this. John N4MM responded saying that everyone had thought it was included in the Antarctic Treaty, which it wasn't. (It is claimed by Norway.)

Other DXCC items included that of North Korea, which will count when a station there surfaces. John said that ARRL Headquarters does not make any decisions without the DX Advisory Committee action, but action by the Board of Directors is a whole new ballgame.

#### The banquet

After the usual DX-type "Happy Hour", the deserving DX'ers herded into the main room for the banquet, which was excellent. No banquet is complete without the Master of Ceremonies and the main speaker. This year's M.C. was none other than Bill Bennett, W7PHO, of the "FAM" (please turn to page 12)

#### Great fishing

(continued from page 1)

clothes do not dry out too terribly fast in the wilds of Alaska!

Approximately halfway into the trip, the group spent four days and nights at the confluence of the Kanektok River and Klak Creek. This is a major stopping point for silver salmon as they wend their way up the river and into the lake to spawn; therefore, fishing was, to say the least, incredibly good. It seemed like every time a line was thrown into the water, it attracted a salmon. We built our own smoker and processed approximately 35 of the fish that way, with the result being delicious smoked salmon.

Four days of relaxation provided us with ample time to thoroughly test out KL7AP's Amateur Radio gear. The "River Rats," as they came to be known statewide, maintained daily contact with "lifeline liaisons" Mary Dade, AL7CP in Manley Hot Springs, and Larry Walter, KL7IWC in Anchorage, who provided us with several fine phone patches. As often as possible, we checked into the Alaska Bush Net (7254 kHz at 0330Z) and the KL7KV Motley Group Net (3932 kHz at 0600Z). Betty's Kenwood TS-120S was powered by a Honda EM-400 portable gasoline generator. The antenna was a Western Radio Electronics Model

998BUA all-band trap dipole, usually configured in an inverted-V. It performed admirably throughout the trip, yielding 59+ signal reports into such exotic DX locations as Los Angeles (Ken W6WI) and Honolulu (Paul AH6D).

Back to the fishing — it was almost as good as the hamming! Not only did we catch the "behemoth" silver salmon, but also trophy-size Arctic char, Dol Varden, grayling and rainbow trout. "Silvers," however, were predominant we caught approximately 100 per day, most of them fresh out of the Bering Sea sporting shiny silvery-green scales, silver lice in their gills, and plenty of fight. We ate them every way imaginable — smoked, broiled, baked, fricaseed-on-the-half shell . . . we had a lot of time to experiment!

After 16 days of thrashing the water to a foamy froth and being preyed upon by the Alaska State Bird (the mosquito) we barreled into Quinhagak, whereupon we raided the village store, run by KL7CQ acquaintance, Anna Cleveland. Yes, they do have Fig Newtons in the most isolated parts of the world!

After spending a weekend at the Quinhagak Airport, we were ferried by bush plane back to Bethel, and from there back to Anchorage on Wien, ending our journey into the heart of the last frontier on earth — the Great Land, Alaska.

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### Do theirs offer selectable SKIP or HOLD?

When scanning with the 2591, choose HOLD to stop and stay on a busy frequency. Choose SKIP to stop for several seconds and continue.

### Do theirs offer modifiable Band Scan without complete reprogramming?

With the 2591 you can scan any section of the band with user defined upper and lower limits in steps of 5, 10, 15, 25, or 30 kHz. Change step size, upper and lower limits independently. Manual Scan also, up or down, in 5 kHz steps.

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# Special Events...

## Pictures in the sky

Submitted by Mike Stone, WB0QCD

It had been three years in the making, but finally — after a lot of advance planning, two previously unsuccessful attempts and persistent determination — members of the Quad-City ATV Group (Iowa/Illinois) finally got "off the ground," transmitting "live" BW/color FSTV pictures from a hot-air balloon!

An attempt was made back in February 1981 by Cedar Rapids/Muscatine, Iowa ATVers at Stanwood, Iowa, which resulted in a long, cold and snowy morning, unable to get a ride from any of the 15-20 balloonists — due mainly to "race" conditions.

A second summer attempt in 1982, from Scott County Park near Davenport, Iowa, resulted in inclement weather in which none of the scheduled balloons went airborne.

25 June (Field Day) 1983 arrived with the Iowa/Illinois ATVers willing to give it just one more try in an attempt to send

closed-circuit TV pictures from an amateur-TV system aboard a hot-air balloon.

### Getting a ride — the big problem

Thanks to some inside contacts at WQAD-TV (ABC Channel 8) in Moline, Illinois (several amateurs work there) who were sponsors and promoters of the event, the pitch was made Sunday morning at the 6:00 a.m. meeting of the balloon pilots for a ride by Ron Miller, KA0AYC, of Moscow, Iowa, who was ready and equipped to record on videotape and transmit FSTV pictures on 439.25 MHz.

Response was not too thrilling from the balloonists until WB0QCD took the podium explaining the amateur "hobby" attempt and how the ATVers had been working on this for three years. Immediately, one of the racers came forward and volunteered a position aboard the hot-air balloon *Lemondrop* N54687. The word went out over the 2-meter FM circuit 146.34/94 MHz repeater that the group was going up in 30 minutes!

ATV monitoring "receive" stations standing by were Donald Hartman, KA0BVT, and Carroll Pitt, WB0MEW, at the Muscatine, Iowa Field Day site (20 miles), WB0ARW in Fairport, Iowa (15 miles); W9RI in Rock Island, Illinois (8 miles); WB9WST at Rock Island Arsenal Club Field Day site (9 miles); N9GA in



FSTV pictures were transmitted from the *Lemondrop*, one of the balloons participating in a hot-air balloon race on Field Day. (The *Lemondrop* can be seen on the left, ready to lift off.)

Canton, Illinois (90 miles), WB9BTT in Vermont, Illinois (100 miles); and WB0QCD/K9MVJ/WA9RMR at the Southpark Mall Shopping Center "Base Station" facility. Orville Vogelbaugh, K9ZFK, of Moline, Illinois rode in the "chase vehicle," receiving race location update information.

### Prototype antenna did the job!

Backup equipment proved essential as the planned 427.25 MHz 10 watt transmitter blew a transistor the day before the event. Equipment used was a Silvernail SE1a 10 watt ATV Transceiver, which worked flawlessly for the hour-plus flight; Pentax portable VCR; RCA 007 color camera; a SEM CON INC. (Palos Verdes Peninsula, California) Model T-432 horizontally-polarized, omnidirectional turnstyle groundplane antenna (prototype-designed model being tested by A5 ATV Magazine), hung upside down approximately 4 feet below the basket; Kenwood 2-meter HT and battery-operated power supplies to the VCR and ATV transmitter. Transmitting video frequency became 439.25 MHz with audio subcarrier at 443.75 MHz.

Richard Drake of Ames, Iowa piloted the *Lemondrop*, which fit its description of the only all-yellow aircraft of the 80-plus participating balloons in the two-day event. Dick was most gracious in allowing

KA0AYC to ride in the vehicle, bumping a previous ground crew worker scheduled to ride in the balloon. If it hadn't been for Dick and his lovely wife, the ATV effort would have failed once again.

Temperatures were in the upper 80's on the ground, limiting lift distances somewhat, but winds were unusually calm, providing a magnificent "lift-off" by all balloons, filling the sky with multi-colored designs and shapes. The *Lemondrop* appeared to be about 18th in the pack and was visible for the first half hour of the race to the naked eye.

### FSTV video seen 100 miles at P3

Once the BCARTV (Balloon Carrying Amateur Radio Television) lifted off from the ground level, immediate reports of TV reception began pouring in on the 146.94 MHz repeater. "P5", exclaimed WB0QCD, W9RI and WB9WST receive stations.

At the 400-plus foot level, pictures began coming into the Muscatine, Iowa area viewers, giving P3 signal level reports. Color was reported by WB9WST, even at P2 signal strengths. Recorders were rolling and the FM frequencies were alive with ATV chatter.

A surprise bonus came from Bob WB9BTT in Vermont, Illinois — a distance of 100 miles to the south of the (please turn to page 38)

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## Amateur Radio call signs

Amateur Radio operators often ask the FCC what call signs have been assigned lately. This list shows the last call sign in each group to be assigned for each district, as of 01 August 1983.

Radio District	Group A	Group B	Group C	Group D
0	Extra NB0H	Advanced KD0JB	Tech./Gen. N0EWS	Novice KA0RFU
1	KQ1X	KB1JO	N1CUE	KA1KRS
2	NC2C	KD2AZ	N2ELP	KA2TDC
3	KO3Y	KC3JD	N3DNV	KA3LLV
4	WS4V	KF4DP	N4JCD	KB4GOP
5	NJ5M	KE5EM	N5GFR	KA5RSB
6	KZ6J	KG6DO	N6JCL	KB6BOT
7	KX7N	KD7NL	N7FNC	KA7RAU
8	NE8D	KD8JS	N8FDC	KA8SZW
9	KX9F	KD9DB	N9ECI	KA9QHN
N. Mariana Is.	AH0D	AH0AB	KH0AF	WH0AAG
Canton Is.	AH1A			
Guam	AH2R	AH2AU	KH2BG	WH2ADT
Johnston Is.	AH3A	AH3AC	KH3AB	WH3AAC
Midway Is.		AH4AA	KH4AD	WH4AAF
Hawaii	WH6K	AH6EY	KH6VI	WH6AXG
Kure Is.			KH7AA	
Amer. Samoa	AH8B	AH8AB	KH8AC	WH8AAO
Wake Wilkes Peale		AH9AA	KH9AB	WH9AAA
Alaska	WL9V	AL7FJ	NL7CD	WL7BAK
Virgin Is.	KP2J	KP2AS	NP2AV	WP2ADK
Puerto Rico	WO4Z	KP4HA	NP4JG	WP4CYT

## Redford Township

The Amateur Radio operators of Redford Township are going to have a special event station on the air 23-24 September. Operating time will be from 7:00 p.m., Friday the 23rd, until 7:00 p.m., Saturday the 24th. Station call is KG8W.

Frequencies: Phone — 10M (28600-28625), 15M (21340-21360), 20M (14265-14285), 40M (7215-7235), 80M (3880-3900); CW — 10M (28090-28110), 15M (21090-21110), 20M (14050-14070), 40M (7065-7075), 80M (3600-3610); Novice — 3700-3710, 7100-7110.

The operations will depend upon band conditions and the operators available, so not all frequencies will be in use at all times.

A four-sided fold-out QSL card will be sent to all stations that contact us and who send a business-sized SASE and one of their QSL cards for the Township 150th Book. □

## Treasure Island

The Garden State Amateur Radio Association (W2GSA) will hold their 4th mini-DXpedition on Treasure Island, located in the Manasquan River, Monmouth County, New Jersey — about one mile from the headwaters of the Atlantic Ocean — the weekend of 1-2 October.

Operating times will be 1600 GMT, 1 October to 1600 GMT, 2 October. Frequencies: 3.910, 7.235, 14.235, 21.360 and 28.550.

QSL to Lou Eloe, WA2SSH, 7 Carol Ave., Neptune, NJ 07753. A donation of \$1 or five 20 cent stamps will be appreciated. We supply 9" x 12" envelopes and postage. □

## International Hot Air Balloon Fiesta

The 12th Annual International Hot Air Balloon Fiesta will be in Albuquerque, New Mexico, from 1 October through 9 October.

Special event station KN5D will be operating throughout the Fiesta. Hours of operation 1400-1800 UTC daily. Operation at other hours possible. Frequencies: 15-25 kHz above the low end of General Class phone bands.

A special QSL card, and possibly a Balloon Fiesta certificate, will be available from KN5D, P.O. Box 997, Corrales, NM 87048. □

## Columbus Day

On the weekend of 8-9 October, the Columbus (Ohio) Amateur Radio Association will be sponsoring a special event station, to promote the explorer, Christopher Columbus, the city of Columbus, and Amateur Radio operators around the world. Operating times will be: 1400Z-2400Z, 8 October — 10M phone at 28.6 MHz, ± 10 kHz; 1400Z-2400Z, 9 October, 15M phone at 21.4 MHz, ± 10 kHz.

The event will be open to all amateurs worldwide, divided into two groups: Columbus, Ohio amateurs (including area suburbs), and all other amateurs. Columbus hams are to work non-Columbus hams in an informative and relaxed manner. Non-Columbus hams are to work as many Columbus hams as required for a certificate.

A valid exchange shall be name and RST. Columbus hams should include info on certificate.

In scoring, 1 pt. for each contact (excluding W8TO) and 6 pts. for W8TO con-

tact. A final score of 10 must be submitted to be eligible for certificate. Scores must be submitted within 120 days to be valid.

Certificates will be issued to all qualifying amateurs who include SASEs (SAEs and IRCs OK for DX). A mini-contest will be in operation during the event. The highest score from a Columbus ham will receive a plaque suitable for framing.

All requests for certificates and information should be sent to: Radio Station W8TO, Attn. Special Event Coordinator, 280 East Broad St., Columbus, OH 43215. □

## Sunbelt Expo

The Colquitt County Ham Radio Society will be operating club station WD4KOW from the site of the 6th Annual Sunbelt Agricultural Exposition on 11-13 October. The hours of operation will be 0900-1700 EDST each day.

Operations will be in the General portion of the HF bands. The members will also be listening for visiting amateurs on the local repeater 146.19/79. Visiting hams are invited to visit the amateur booth at the Expo and operate the amateur station.

A special QSL card is available for those making contact during this event and submitting an SASE. Colquitt County HRS, P.O. Box 813, Moultrie, GA 31768. □

## Scouts and Radio

The 26th Annual Jamboree On the Air (JOTA) — sponsored by the World Scout Bureau, Geneva, Switzerland — will be held 15-16 October, 0001Z Saturday to 2400Z Sunday. Boy Scouts and Girl (please turn to page 9)



# MEET THE NEW YAESU FT-102



The FT-102 is factory equipped for operation on all present and proposed Amateur HF bands. An extra AUX band position is available for special applications. Equipped for SSB, CW, and AM (RX), the FT-102 may be activated on FM and AM (TX) via the optional AM/FM-102 Module.

The all-new receiver front end utilizes a low-distortion RF preamplifier that may be bypassed via a front panel switch when not needed. Maximum receiver performance is yours with this impressive lineup of standard features: IF Notch Filter, Audio Peak Filter, Variable IF Bandwidth Control, IF Shift, Variable Pulse Width Noise Blanker, Independent SSB and CW Audio Channels with Optimized Audio Bandwidth, and Front Panel Audio Tone Control. Wide/Narrow filter selection is independent of the Mode switch.

The celebrated transmitter section is powered by three 6146B final tubes, for more consistent power output and very low distortion. An RF Speech Processor, Mic Amp Audio Tone Control, VOX, and an IF Monitor round out the transmitter lineup.

Futuristic panel design and careful human engineering are the hallmarks of the FT-102. Convenient pop-out controls below the meters may be retracted when not in use, thus avoiding inadvertent mistuning. Abundant relay contacts, rear panel phono jacks for PTT, microphone/patch input, and other essential interface connections make the FT-102 extremely simple to incorporate into your station.

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#### TRANSMITTER

Power Input: (1.8-25 MHz) (28-29.9 MHz)  
SSB, CW 240W DC 160W DC  
AM 80W DC 80W DC  
FM 160W DC

#### RECEIVER

Image Rejection:  
Better than 70dB from 1.8-21.5 MHz  
Better than 50dB from 24.5-29.9 MHz

#### IF rejection:

Better than 70 dB  
Selectivity (-6 dB/ -60 dB):  
SSB, CW, AM; 2.7/4.8 kHz (with no optional filters)  
Width adjusts continuously from 2.7 kHz to 500 Hz (-6 dB)

Spurious Radiation: Better than -40 dB



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The SP-102 External Speaker/Audio Filter features a large, high-fidelity speaker with selectable low- and high-cut audio filters. The front panel A-B switch allows selection of two receiver inputs for maximum versatility. Also available is the SP-102P Speaker/Patch.

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#### FV-102DM

The FV-102DM Synthesized External VFO tunes in 10 Hz steps. Keyboard entry of frequencies, UP/DOWN scanning, and 12 memories make the FV-102DM a "must" for serious DX or contest work.

#### FC-102

The FC-102 Antenna Coupler is capable of handling 1.2KW of transmitter power, with an in-line wattmeter, separate SWR meter, and A-B input/output selection expanding your station's capability. The optional FAS-1-4R allows remote selection of up to four antennas via one coaxial cable connected to the FC-102.

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Amateur station power is now to be measured at the transmitter antenna terminal and is to be limited to a maximum of 1500 watts peak envelope power. This applies to SSB, CW and FM emissions. Amateurs using amplitude modulated full-carrier telephony may continue to use the input to the final amplifier measurement and 1kW DC limit as before, but for not more than seven years. While the licensee is fully responsible for compliance with the limit, the requirement for having power measurement equipment at the station has been eliminated (effective 8/29/83, FCC Report and Order in PR Docket 82-624).

The prohibition against business communications in the Amateur Radio Service applies to both third-party and non-third-party communications. "... the term business communications includes all types of communications intended to facilitate the regular business or commercial affairs of any party, whether individual or organization, whether for profit or not, whether charitable or commercial and whether government or non-government.

"Certain communications by amateurs are permitted where the communications benefit the public (medical emergencies, lost children, etc.), rather than sponsors of a particular event." (from Report No. 2198, "Private Radio Action" published by FCC 6/30/83)

In a letter to the ARRL, the FCC wrote: "We want to emphasize that the Order does not prohibit Amateur Radio operators from participating in the routine events of traditional public service activities. For example, Amateur Radio operators may provide communications for municipal parades, marathons, walkathons, Eye Bank activities and the like. Although they may incidentally 'benefit' the sponsor, their main purpose is to provide a service to the public which is the real beneficiary. Direct promotion to assist in the sale of a sponsor's product would, of course, be forbidden..."

For a very thorough examination of the "Business traffic" subject, Chuck Clark, K4ZN's August *Worldradio* 'Traffic' column, page 36, is recommended reading.

Alien amateurs operating in the United

States under a reciprocity agreement are limited to the privileges authorized by their own government, but may qualify for more privileges by passing the appropriate FCC examination, was the response from the FCC in dismissing a recent petition for additional privileges. (An alien operating here via a reciprocity agreement is also confined to privileges not to exceed U.S. Extra Class privileges!)

An agreement permitting the exchange of third-party communications between Amateur Radio stations of the United States and Swaziland, 3D6, was effective 26 June 1983.

Former Private Radio Bureau Chief James C. McKinney is now chief of FCC's Mass Media Bureau. Succeeding McKinney is former PRB Deputy Chief Robert S. Foosner. The Mass Media Bureau is a combination of the former Broadcast and Cable Television Bureaus. Jim has been notable for his ability to understand and deal fairly with the Amateur Radio Service. He will be sorely missed!

The possible use of the proposed amateur satellite "PACSAT" for filling requests from developing countries for all kinds of technical information is being explored at the FCC by "VITA". PACSAT is described as a packet-switching, computer-equipped mailbox-in-the-sky. VITA is the "Volunteers in Technical Assistance."

You may expect a Notice Of Inquiry by the FCC into the rights of nets vs. the rights of individual amateurs in the use of amateur frequencies, sometime this fall. See the first paragraph of 'Highlights' two months back for the FCC's position regarding interference to repeaters.

The FCC proposes to change the Alaska emergency frequency to 5167.5 kHz and to permit stations in the Fixed Public Service to use it as a calling frequency. The present frequency is 4,383.8 kHz. It is used as a common frequency by stations in the Amateur, Fixed Public and other radio services for coordination of activities dealing with emergencies in Alaska. Better coverage of the state and assurance that someone will always be monitoring the frequency are reasons for the proposed changes. (PR Docket 83-464, comment deadline 11/1/83; reply comment deadline 1/30/83)

A request by an amateur for special temporary authority to try out the new (shared) 902-928 MHz band has been denied by the FCC on the basis that it is not yet an amateur band. The band is expected to be released to amateurs on a secondary basis as part of General Docket 80-739 implementation of the

World Administrative Radio Conference (WARC-79). However, test transmissions can be authorized in the band via a license in the Experimental Radio Services under Part 5 of the FCC's Rules from their Office of Science and Technology, Washington, D.C. 20554.

The FCC has amended the amateur rules to eliminate the mail-back procedure in giving Novice examinations (PR Docket No. 82-727, 6/29/83).

Under the new procedure, the examiner will create individual examinations from Commission-prepared questions, administer and grade them, and send the applications of those who passed the examinations to the FCC for issuance of the license. The examiner must be selected by the applicant, must be at least 18 years old, not related to the applicant, and must be an Amateur Extra, Advanced or General Class operator licensee. Also prohibited was an employer-employee or employee-employee relationship between those testing and being tested. Furthermore, those who sell amateur equipment or publications may not serve as examiners.

A list of test questions (PR Bulletin 1035A) is available at FCC Field Offices (Report and Order, 6/29/83, FCC 83-297). The new examination procedure became effective 31 August. Receipt at Gettysburg of the papers from examinations given under the old procedure will result in their return, together with all materials and instructions for conduct of an examination under the new procedure.

There is a good possibility that the FCC would respond favorably to a petition to allow simplex autopatches at amateur stations under conditions similar to regular duplex autopatches.

A blanket waiver of the rules to permit retransmission of the space shuttle broadcasts by Space Center Amateur Radio Clubs for the remainder of the series may be forthcoming from the FCC. However, there is considerable concern about whether justification as being "for the use of amateurs" will discourage exploita-

tion of the "retransmissions" by the makers and sellers of scanners. One well-known scanner manufacturer was busily advertising his scanners to the public for pickup of the shuttle transmissions via amateur stations, prior to the last shuttle flight!

The "no-code" PR Docket 83-28 comment period ended in late July, with probably the largest volume of comments filed in an FCC amateur rule-making proceeding in recent years, if not an all-time record.

In its comment, the ARRL points out that: "In the first part of the NPRM, the FCC asks whether or not a codeless amateur license should exist. The second part of the Commission's proposal asks what nature and extent of privileges this new type of license should have.

"Answering this second part of the proposal would make anyone against the no-code license appear to accept or even advocate a no-code license."

Amateurs should have a list of prohibited words developed and included in the rules, along with a definition of the way "context" is used in determining what is obscene language or meaning, according to a petition for rule-making recently filed with the FCC by an individual amateur. He feels that a list of prohibited words can be compiled and "voted upon" by both the FCC and the amateur fraternity through the ARRL (from *Westlink Report*, 1 July 1983.) The pertinent FCC Rule Section is: "97.119 Obscenity, indecency, profanity. No licensed radio operator shall transmit communications containing obscene, indecent, or profane words, language or meaning."

As I wrote in 'Highlights' last month, Astronaut Owen Garriott's amateur station operation on board the space shuttle *Columbia* has been approved by the FCC. However, I indicated his was a General Class operator license, whereas he is, in fact, an Advanced Class licensee. Sorry OM!

As reported here three months ago, only four FCC Commissioners remain in office after 1 July 1983. An Act of Congress reduced the FCC Commissioners from seven to five. Ending terms and a resignation are responsible for the current status. As of early August, there was no indication of when the vacancy might be filled, nor have I heard of any likely candidates.

## Club offers class

Ray Meyers, W6MLZ

Scientists are predicting Southern California is due for a massive earthquake. In order to be prepared, our readers might be interested in getting others to become Amateur Radio operators, so they can assist with emergency communications.

The Ramona Radio Club of San Gabriel, which provides the city with emergency communications, started training classes on 12 September.

The FCC has authorized the Ramona Radio Club to give the examinations for the license, thus eliminating the need for one to travel to the FCC offices in Long Beach on a specific day of the week for examination.

If interested, anyone who may desire to attend these classes in San Gabriel may call Larry Lahm at (213) 281-8218, any evening after 8:00 p.m.; leave your name, address and telephone number.

## FCC Lowers Requirements!

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## Special Events

(continued from page 7)

Scouts of all ages, from Tiger Cubs through adult Scouters, and anyone interested in Scouting and Amateur Radio are welcome. If you have never been a Scout, talk to some Scouts about Amateur Radio and give them the thrill of talking to you.

There should be activity from about 100 countries, just enough for DXCC. The World Bureau station, HB9S, the BSA station, K2BSA, and many camporee and special event stations will be operating.

**Exchanges:** Just good Scout talk about scouting experiences, Amateur Radio and friendship greetings — many of which may lead to lasting pen-pal exchanges.

**Certificates:** QSL card-size participation certificates are available to anyone participating in any manner. Send SASEs to: Boy Scouts of America, International Division/JOTA cards, 1325 Walnut Hill Lane, Irving, TX 75062-1296. Twenty cents affixed postage for up to eight cards and 17 cents for each additional eight cards. Cards/certificates may be ordered before the event for distribution during JOTA activities, or after 16 October.

**Patches:** A distinctive, temporary insignia pocket patch is available — for the first time — for wear on the Scout uniform, at \$1 per patch, postpaid, any quantity. Send personal check or money order, no stamps, to BSA, International Division/JOTA PATCH (same address as for certificates). Checks made out to Boy Scouts of America. Send separate orders for certificates and patches.

**Reporting:** Logs and reports are not required. Photos, news articles, bulletin announcements and narrative reports of activity are solicited for a BSA report to the World Scout Bureau. Send to JOTA Coordinator, W2GND, 216 Maxwell Ave., Hightstown, NJ 08520.

**Frequencies:** The worldwide agreed-on calling frequencies for JOTA are: CW — 3.590, 7.030, 14.070, 21.140, 28.190 MHz; Phone — 3.940, 7.290, 14.290, 21.360, 28.990 MHz; plus the usual Novice, RTTY and SSTV frequencies. Anyone for 160, 6 and 2 meters, GHz, CB? Why not?

## RAMS event

A most enjoyable and affordable evening is scheduled for 22 October by the Radio Amateur Mobile Society, Inc. (Sacramento, California). New officers will be introduced, and a no-host bar will operate. Excellent baron of beef and chicken dinner with salad, drinks and dessert; drawing for many prizes; three hours of dancing to the tunes of the John Skinner Dance Band. All for the price of \$9 per person.

The event will be staged at the Carmichael Elks Lodge, Cypress Avenue at Hackberry Lane, beginning at 6:30 p.m. Tickets may be obtained from any RAMS officer by phone, mail or in person, or call Treasurer, M.H. Caldwell, at (916) 332-6126 after 25 September and before 17 October.

Seating is limited and tickets will be available on first-come first-served basis. The event is open to all amateurs, their friends, relatives and neighbors. □

## Mt. Sunflower

The Western Kansas DX Society is pleased to announce the 2nd Annual Mt. Sunflower, Kansas DXpedition. DXpeditioners will be operating from the highest point in the state of Kansas, at 4,025.5 feet, in Wallace County.

The event will take place 22-23 October,

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Thank you!

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Tell us something:

So we better serve you, this space is for your comments, suggestions and even criticisms. If you have any news and information, you are invited to share it. Tell us and we tell the world.

Tell us of your interests and what type of news, articles, features and columns you would like to see. Tell us of your activities. The more we know about you, the better we can tailor this publication to serve you.

Worldradio is a two-way communication. Send in Amateur Radio information and news. Share your knowledge with your fellow amateur and Worldradio reader. We are most interested in your comments and suggestions. We would appreciate being placed on the mailing lists of amateur club bulletins.

1800Z on Saturday to 1800Z on Sunday. Modes: SSB, CW, RTTY and FM. Bands: 160 through 2 meters; 60 kHz up from the bottom of the respective HF bands. Also, operation in the Novice bands. RTTY: 14095 kHz. VHF: 6M — 50160 kHz; 2M — 144210 kHz SSB; 144520 kHz FM.

K0EQH is the call sign to look for. To set up skeds, contact: Western Kansas DX Society, P.O. Box 811, Garden City, KS 67846. □

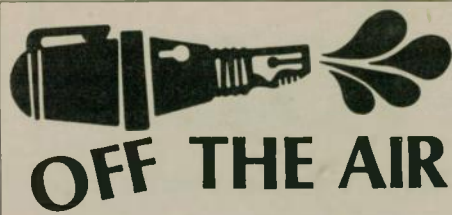
## 100-year-old tower

The Ponce De Leon Inlet Lighthouse Preservation Association of Ponce Inlet, Florida, is celebrating the centennial of its historic tower, constructed 1882 to 1886. It maintains three museums, consisting of typical 19th-century lighthouse keepers' homes. The light is still in use by the Coast Guard.

Daytona Beach Amateur Radio Associ-

ation will operate K4BV on Saturday, 29 October, and Sunday, 30 October, 1400Z-2100Z. Frequencies: phone — 7275, 14275, 21375; CW Novice — 7125-21125. Certificate available; send your QSL and large SASE to DBARA, P.O. Box 9852, Daytona Beach, FL 32020. □

Contact Worldradio for hamfest prizes.



## Help wanted in locating war buddy

My communications officer in WW II was a ham, and I have tried to locate him. We were together in the Americal Division 70 Coast Artillery AA Reg., headquarters in New Caledonia and Solomon Islands. He was a major when I left Guadalcanal.

His name was Martin (Martie) Cohen. I believe he was from Duluth, Minnesota. Was one real fine fellow, a ham, and knew Radio.

CALVIN WHITE, W8ZHN  
154 Sunnyvale Drive  
Charleston, WV 25302

P.S. Got that call in June 1946. □

## More on Cuban award

I would like to inform other amateurs who are applying for the Caribbean Award, sponsored by La Federacion de Radioaficionados de Cuba, that it is alive and well.

While working mobile on my way home from work, 21 July, I was in QSO with Oscar CO2OM, in Havana, Cuba. After chatting awhile, I asked Oscar if he had any information about this award that I had applied for in early 1982. He stated that the diploma printing had run out, and a new print was being run. Also, had I applied that long ago, I should have already received mine, but to contact the club QSL/awards manager, and if the award had been lost, another could be sent.

Approximately two hours after arriving home, the mailman delivered my mail, and there was the Area del Caribe diploma, very neatly rolled inside a cardboard tube.

After reading several stories and views on the award in past issues of Worldradio, I thought I would bring everyone up to date on its status.

Those who have not yet received their award may contact Gloria CO2GB, QSL manager for Caribbean Award, FRC, P.O. Box 1, Havana, CUBA.

VINCE CUKER, WA8BIJ  
Mt. Clemens, Michigan

(An explanatory letter regarding this award was printed in Worldradio February 1983, page 18 — "Cuban award mystery solved," by "Doc" Schwartzbard, AF2Y.) □

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## 'Ham spirit' strong in Brazil

We thought you might like to read about some humanitarian efforts by hams in Brazil. Our fine ham friend, Luiz August da Cruz, PY7AHJ, of Recife, told in a letter dated 19 July of the disastrous flooding in the states of Rio Grande do Sul, Parana and Santa Catarina. These are in the southern part of Brazil.

For two weeks, many parts of these states were under 15 meters (49 feet) of water. Forty people died, three were unaccounted for, and there was no water safe enough to drink. By 19 July, the waters were still 11 meters deep (36 feet).

Ham groups worked to give relief to those afflicted, and at times, field communications were handled entirely by amateurs and the armed forces. Using helicopters, the Air Force brought in food, medicine and water.

In two of the states, convicts of the state prison decided to give up two meals a week in order to send the food to the

people in the affected regions. The states mentioned have had a history of flooding; some years ago there were three floods in a row, but at least there was no shortage then of drinking water.

Cruz notes the irony of Brazil's weather. For his region (Recife and environs), the fifth year of drought is underway. The cattle are dying, short of water and grass, and agriculture is suffering serious losses. Human hunger, child mortality and worker unemployment are serious problems as well, aggravated by the financial situation and weather extremes.

Cruz has written many fine letters about the humanitarian efforts of hams in Brazil — an active, close-knit community that really shows a lot of the "ham spirit" in tough situations.

MARY KA7FEF/  
JOHN MacKENZIE, KA7FEE  
Portland, Oregon □

## 'Champ' gets 'lucky' with FR7 QSO

On 3 June, I was cruising 20 meters, looking for a "new one" on CW, and for no good reason I erred and got completely out of the normal CW band, and found myself reading FR7BP calling W0AX on a sked. He was having no luck, so I couldn't resist and gave him a quickie call. He was a healthy 599.

To my surprise, he came right back and gave me a short, but courteous report and QSO. This was a sunrise-sunset QSO. He informed me that W0AX was his QSL manager. I got the SASE and a green stamp off pronto, expecting perhaps to add this new QSL in a couple of months. But to my great surprise, on 10 June I had the treasured pasteboard in hand.

Dr. Donovan, W0AX, informed me that he was on frequency by this time, and had copied the entire QSO; that was the proof he needed. No waiting for logs, etc. Such luck makes me ask: Whatinell was I ever doing on 14120 kc? Why did I butt in on an obvious sked? Why did it just happen to be sunrise (I didn't know it until I checked the morning paper later)? If his QSL manager was on frequency, why wasn't he answering? How can I make this happen 150 more times so I can make the Honor Roll? FR7 is my 150th country since I returned to the air in '81, after being inactive for 26 years.

Maybe it's the good Lord trying to make an old man happy. Maybe just dumb luck. I like to call it serendipity.

Unhappily, I must add a sad note: W0AX informs me that FR7BP, who is Jean Bouygues, had to leave immediately for France for treatment of a very serious

medical problem. Jean is well-known here in the States, I understand, and will be missed. I hope he is back on soon in Reunion Island.

Other sad tidings regarding Kuni Nakagawa of Tokyo. He was best known amongst many of the stateside old-timers as J1EE. He also held J2HI and JR1LDR. In a QSO with Masaharu "Hal" Okochi, JP1BJR (the only JP in the book), I asked about J1EE and was told he had just attended the memorial service for J1EE.

J1EE was my sixth continent for WAC in 1933. (That was as tough then with 30 watts as DXCC is now with 100 watts.)

In QSO with Tom Applewhite, N6DGX, of Pasadena (California), I found that J1EE also made him WAC when he was a mite younger and was W2CI.K in New York. The world is full of coincidences, sadness and serendipity.

I operate a Kenwood TS520 and Mini-Quad, inverted Vees sometimes. CW only — don't own a mike. General Class and too dumb to upgrade at this stage. Enjoy your DX news immensely.

LELAND CHAMPION, N6ETK  
Midway City, California □

## Not 'danken du'

Re: Worldradio, August 1983, page 27

Any German ham would likely be completely mystified or fall off his chair laughing by "danken du und 73" (hi hi hi). Better and correctly: "Vielen dank und 73."

PAUL KOSBAB, NF4E/5  
Tulsa, Oklahoma □

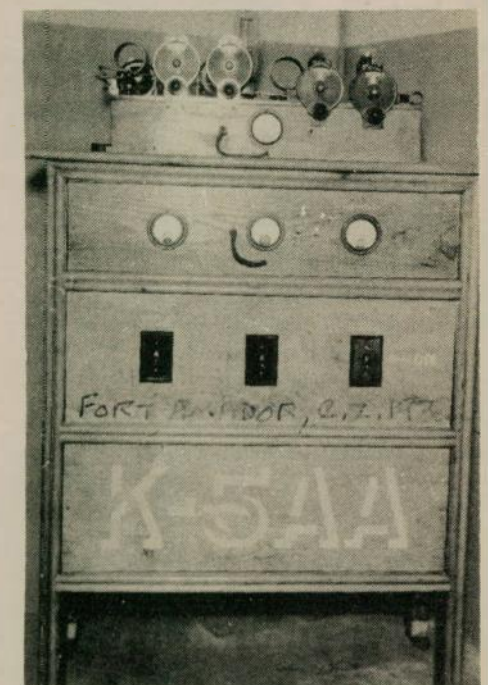
## Let's hear it for MYL's

My husband (Bill W8WG) and I (Sally N8EEG) became an "Extra Class Couple" on 27 July 1983, when I passed my Amateur Extra exam. I do not (like many women in the hobby) wish to be called an XYL. I feel it should be changed to MYL (Married Young Lady). Can we get all the hams to refer to female operators who are married as MYL's?

SALLY TAYLOR-GARDNER,  
N8EEG  
Athens, Ohio □

## Old-time transmitter

In a recent issue of your magazine (June 1983, page 23), you published a copy of an antique QSL card from K5AA, Fort Amador, C.Z. dated 12 November 1932. I am the person whose signature appears on the card, and I am submitting herewith a photo of the transmitter in use at that time and place.



This station operated only on CW and was used as a training tool for the radio school of the regiment. When students could pass a 20 wpm code test, they were allowed to operate the ham set.

M.G. BRASHEAR, W7IB  
La Center, Washington □

## General Class ham speaks out

1) Why do all the DXpeditions transmit on the Extra and Advanced frequencies? Do they think all the Generals are just not up to the required operating skills? Some Generals would rather stay where they are instead of upgrading.

Generals would like to be able to work those rare and distant countries, but it seems as though they are not allowed. There are, today, more skilled Generals than there have ever been on the air since the beginning of Amateur Radio. Some Extra and Advanced operators are younger — some 12, 14, 18 years old — and they do not know very much about operating skills, etc. All they did was study for the exam, pass the test, then just push knobs and buttons as they work DX.

The Generals got new frequencies, expecting to be able to work rare countries, but what happens? Everything moves to the new Advanced section. Why not give the Generals something to work so they can enjoy the thrill of DXing? It seems as though the Generals are good enough to work only at contest time — and then only for the extra points. Why are the Generals not good enough to work all the time?

2) There seems to be, in addition, an inordinate number of nets operating on the bands. No matter where one tunes to, someone is running a net. Nets are fine and very important, but when frequencies are claimed without any regard to ongoing QSOs etc., this is going a little too far. There are nets for bald men, toenail clippers, and nets for just about anything — just so it can be called a net; the members (please turn to page 12)



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# Off the Air

(continued from page 10)

can therefore "claim" a particular frequency. If a net is operating on a certain frequency and someone inadvertently calls CQ there — before the net begins — someone will demand that this person move up or down a few kcs. In most cases, they demand that no one operate on their frequency.

My question is this: Does the net OWN this frequency? Are not all frequencies for

**EVERYONE?** Can the net not move 1 or 2 kcs away and let the previous QSO continue? There is only one net I know of that is polite enough to QSY if the frequency is already in use — the MIDCARS net.

Some of the net control operators get quite nasty and demanding. So, why do we not all cooperate and make Amateur Radio what it is supposed to be — a hobby and a pleasure.

3) Finally, I do not believe that some of the amateurs operating on the bands know what a dummy load is for. They fire up the rig and start tuning, no matter who is on or where their dial is set. I am

surprised that more final tubes are not blown up, considering the way they keep the carrier on for so long. If one must tune up without a dummy load, why not find a clear spot before tuning up? Please don't do it on someone's QSO.

A good idea would be to tune up when the band is dead (or at least active) and then make a chart showing each knob setting. Then, all one would have to do in the future is pre-set the tuning controls and quickly peak the rig, thus avoiding unnecessary QRM and saving time — and tempers.

If the instructors for classes would stress this tuning procedure, much of this QRM could be avoided; yet, I have never heard any instructor emphasize this point enough. Get the Novice — or other class licensees — started right, and we then could have a better hobby.

I know this letter will make some of the hams angry and ready to write nasty comments, but I had to get this off my chest and let the readers know how I feel. I am sure these comments are thoughts shared by many.

CHARLES HOFFMAN, WA4TYN  
Knoxville, Tennessee

# Convention

(continued from page 4)

ly Hour" fame, who introduced the head table and others in the room responsible for the success of the convention. Bill introduced Roy Foote, N7AIF, the Convention Chairman, who was responsible for pulling together this fine convention. OM W7PHO is an excellent speaker and had some interesting stories.

Everybody's favorite — Hugh Cassidy, WA6AUD — was the speaker at the Saturday evening banquet. Cass, who for 11 years had continuously published the *West Coast DX Bulletin*, recalled the memories of publishing this famous DX newsletter. Cass remarked that most DX'ers are oldsters, and that only a DX'er can understand DX or another DX'er.

The *West Coast DX Bulletin* came into being after the old *West Gulf DX Bulletin* folded in 1968 and was published by the Marin DX Group. Who was the Marin DX Group? None other than Cass himself, assisted by his wife. Cass developed his own sources of information over the years, which was rather costly. His pre-paid envelopes that he provided his readers had cost him about \$200 per month, but it paid off, as it brought in much of the DX news needed for the bulletin.

It was Cass who coined many of the DX phrases used in DX circles today — such as "DX is". Cass remarked that there were some DX'ers who missed much of the DX news that was included in the bulletin, as he had put it inside the bulletin instead of the front and back pages. It seemed that these DX'ers only read the front and back pages and skipped what was inside.

The Palos Verdes Sun Dancers were often included in the pages of the WCDXB. "No one has ever proved they were wrong," said Cass. Who was the QRP'er that was always treated as the naive DX'er? The QRP'er really was everyone, as each DX'er thinks he has less than the other. The Old-Timer was also many people, but more times than not, he was Sam Canter, W6TSQ, a local Marin County DX'er.

The bulletin grew and grew as the years went by. In addition to the DX news, Cass included the minutes of the ARRL Board Meetings before they appeared in QST. The DX'er is not the usual amateur found on the bands. "DX'ers are the top of the heap and they know it" — a comment which Cass said was originated by a traffic handler. Advice to a new DX'er? Stand tall!

Cass finalized his talk with what it was like near the end of 11 years of publishing the *West Coast DX Bulletin* without ever missing a single issue. It was a seven-day-a-week job at 12 hours per day. Postage was running at \$15,000 a year, with paper costing him \$300 per month. The bulletin

ended in a cloud of smoke, with Cass owing no one any refunds.

## Sunday breakfast

As in many DX conventions today, a Sunday morning breakfast is included in the price of the ticket. A sit-down breakfast of ham and eggs was served, not like the stand-in-line type given at the other DX conventions.

The Western Washington DX Club chose to show their appreciation to the three visiting DX'ers who were on the program. Terry Baxter, N6CW, and John Kanode, N4MM, each received an award of appreciation, plus a booklet about Washington state and honorary membership to their club. Cass also received honorary membership to the club, plus a Totem Award (not the paper type given for working Washington stations).

Roy Foote, N7AIF — in addition to organizing this year's convention — found the time to work the required 100 Washington stations for the club's Totem Award and was awarded his certificate.

Terry Baxter, N6CW, was then introduced as the breakfast speaker. Terry, formerly K6SDR, began his DX'ing

career back in 1958. (Terry also worked with the 6th District QSI, Bureau when it was handled by the San Diego DX Club and handled my incoming QSL cards.) He met John Ackley, KP2A, and mentioned that he would be interested in going on a DXpedition with him sometime. Shortly thereafter, in 1982, John called Terry and asked him if he would like to go to Navassa Island with him. At first he was reluctant to go, but changed his mind. All the operators had to sign disclaimers with the Coast Guard so no claims could be made against them. The calls of the operators that went to Navassa with Terry and John included W2IJB, N2OO, W0DX, K8CW, K1MEM, K0OO and WA2MOE. After a few days of eating out of cans, Terry protested and somehow wound up being the cook.

After a week of operating on Navassa Island, Terry reported that the number of contacts made with the DX'ers around the world reached 35,000. Supporting Terry's interesting talk was a fine selection of slides.

Following the Navassa Island presentation, the usual awarding of prizes was made. At the Visalia DX convention a few

months back, a very well-received QSL contest was introduced. The object was to identify the call of several different QSL cards placed on the walls throughout the convention rooms. The cards had part or all of the calls masked off. The contest, designed by Jay O'Brien, W6GO, was repeated at this convention. Unfortunately, only three entries were received. Kurt Heidergott, K7UU, was the winner, with 21 correct answers out of a possible 24. For this he was awarded a "Moscow Muffler" by AEA.

Following this, the prize tickets were drawn, with Ruth Bennett, WA7RVA, winning the main prize — an ICOM IC-740 with internal power supply. No, Tom Wong, VE7BC, didn't get it this year, but he did win a toaster-oven.

Next summer, the 32nd Annual Pacific Northwest DX Convention will be hosted by the Willamette Valley DX Club at the Greenwood Inn in Portland. The date will be around mid-July.

## Ohio students given scholarships

The Dayton Amateur Radio Association has awarded two \$1,000 scholarships to graduating high school seniors.

Victor Stauder, president of the association, announced the awards will be given annually to Dayton area graduating seniors pursuing careers in engineering, science, communication or computer technology. The scholarships will be administered by the Dayton Montgomery County Scholarship Board.


The first two recipients of the scholarships are: Richard Gibson of Dayton, Ohio. Richard plans to attend General Motors Institute, working toward an engineering degree. The second scholarship went to David Somers of Kettering, Ohio. David plans to attend Yale and will also be majoring in engineering.

## Palomar ARC awards 1983-84 scholarship

Thuan Tran, a second-year student majoring in electrical engineering at Palomar College (California), is the 1983-1984 recipient of the Palomar Amateur Radio Club, Inc. Scholarship award.

Thuan came to the United States from Viet-Nam in July 1981 with his wife and son, and settled in Escondido, California. In the fall of 1983, he plans to transfer to San Diego State University and work toward his goal of obtaining a degree in electrical engineering.

For further information on the \$200 scholarship award, contact Scholarship Chairman Emily Wolfe, WA6ZKC, P.O. Box 592, Solana Beach, CA 92075.



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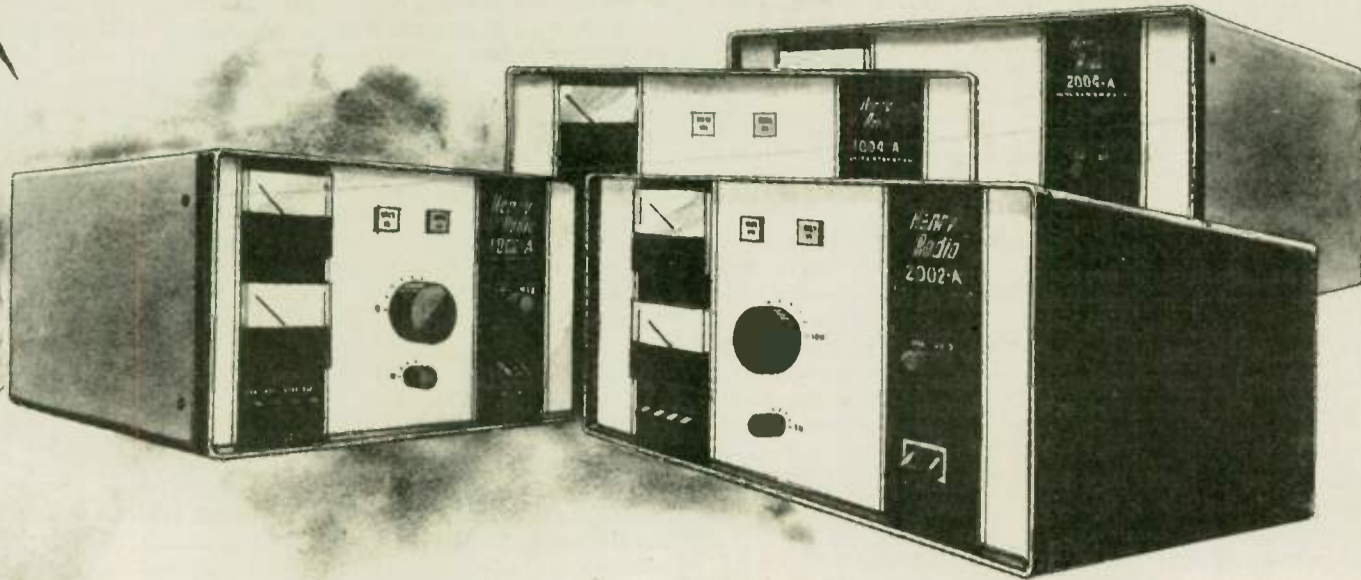
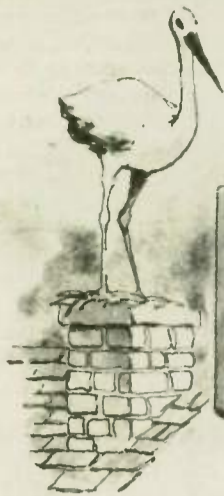
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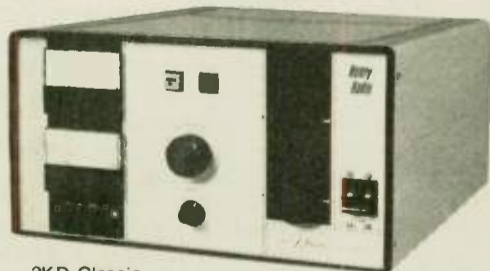
**3. the 1002-A** is a 2 meter amplifier with the same design as the 2002A, except using one 8874 tube for ½ power specifications. The 1002A is rated at 600 watts PEP output and 300 watts continuous carrier output. It employs

the same strip line design as the 2002A. The 1002-A . . . \$795.00

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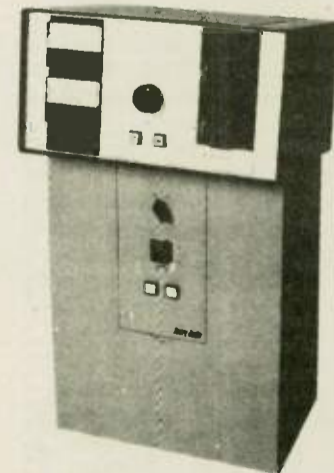
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# AMATEUR RADIO PUBLIC SERVICE

## 'Ham talk' at parade

Roger Peister, KA0CRI  
Assistant EC, Scotts Bluff ARES

On 15 July, members of the Scotts Bluff ARES provided communications for the various chairmen during the annual Oregon Trail Days Parade in Gering, Nebraska.

The day started off at 8:30 a.m. with two amateurs assisting parade officials checking in floats for the parade. By 10:30, nine amateurs were in place along the parade route with the different floats, bands, etc. Parade officials were able to integrate the many floats, bands, horses, antique cars, etc. into the parade, using Amateur Radio.

The day before the parade, the same amateurs provided communications for the Don Childs Memorial 5-Mile Run. This event starts off the annual Oregon Trail Days celebration.

The hams were placed at strategic points throughout the course, which ran from downtown Gering, west to Scotts Bluff National Monument, and back around to the north into town. The Scotts Bluff ARES repeater, WD0BQM, 144.87/145.47, was used for all communications during the event.

The amateurs who participated were: Merlin WD0BQG and Shirley Rice, KA0BCB; Bruce Tompkins, KA0ICP; Frank Page, WA0YIJ; Jim Parks, WB0GPM; Walt Johns, W0KAV; Warren Schafer, WD0AHV; Dan Smith, KR0A; and Jim Weber, WD0BQM. □

## Race, watch keep hams on their toes

A weather watch and a safety net kept Lincoln (Nebraska) ARC members busy in June.

12 June was the date of the annual "Pepsi Challenge" 10 km race. Operators were posted at strategic intersections so that the entire race course was under constant surveillance in case of medical problems. The cool, rainy weather cooperated, and all 770 runners finished safely. Eight amateurs participated.

The following day, 13 June, 18 amateurs were called upon for weather watches, as a slow-moving front passed through Lincoln. As the front moved, its potential for tornadic activity increased, and some severe thunderstorm warnings were posted for counties immediately to the east of Lancaster County.

Late in the afternoon, local civil defense officials requested spotters at a number of pre-determined points, including two local radio stations (linking their radars), the weather bureau and civil defense. No funnels were spotted, and the net was closed an hour later. (— Information submitted by Reynolds Davis, K0GND) □

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## Kidnapped child prompts ham action

Robert McKay, DARA PIO

On Saturday, 30 July, Garth Borton, WB8KZB, heard a radio report of a missing child from his neighborhood of Huber Heights, Ohio. A call to police offering the services of handi-talkie-equipped amateurs was readily accepted. Another call to the Dayton Amateur Radio Association (DARA) Van Coordinator, John Kovacs, WD8EOL, and the DARA Emergency Communications Van — with Joe Moore, K8VAZ, at the wheel — was on its way to act as control center for the search. Calls for assistance on the local repeater by Joe Brassard, KA8OKC, brought out 39 amateurs. In a relatively short span of time, a controlled search of the area was instituted. Six area Boy Scouts, friends of one of the hams involved, also assisted.

By mid-afternoon, the police announced that what initially appeared to be a walk-away was definitely a kidnapping. Police theorized the 4-year-old girl, arising early to watch cartoons, had surprised a burglar who had abducted her to prevent detection.

The story has a happy ending as the little girl was found soon after, unharmed, about six miles away in a bowling alley parking lot. While the little girl was not found by the amateurs, had she been a walk-away — as suspected, it is highly likely she would have been found by the organized group of amateurs, who worked closely with the police.

This is a good example of how quick-thinking amateurs with emergency capabilities can provide a vital service to their community.

Some of the other area amateurs involved in organizing the search were: Gordon Anderson, N8CCC, and Andrew Amsden, N8BCT. □



With snow-capped Sierras in the background, BARC members (left to right): Charles Specht, W6VOO; Bob Wirth, KA6AMT; and Harry Kline, W6ZT, are shown working on the rooftop of the U.S. Forest Service building in Bishop, where a Hustler 5BTV and a Larsen Kulrod 2-meter antenna are being installed. (Photo by WB6YZY)

## Bishop club gets 'rooftop space'

Cal Turner, WB6YZY

To further Inyo County, California emergency services, the U.S. Forest Service's White Mountain Ranger District, Bishop, California, provided communication space and antennas for use by members of the Bishop ARC (BARC) during a major disaster. The Forest Service building has been designated as the Emergency Operating Center for Inyo County and has emergency power in the event of local power failure. Inyo County lies in a potentially vulnerable area due to possible volcanic activity, earthquake and/or flood.

A 5-band BTV, Hustler, and a 2-meter Larsen Kulrod were funded by the U.S. Forest Service, along with two runs of RG-8/U from a two-story rooftop down to the dispatch center.

A recent demonstration of 2-meter capabilities by District Emergency Coordinator Cal Turner, WB6YZY, and Emergency Coordinator Bill Milligan, W6DQR, before the Inyo County Inter-Agency Emergency Services group

sparked interest and enthusiasm for Amateur Radio participation. The representative from the U.S. Forest Service inquired, after the demonstration, as to how they could help us. Therefore, a written request to them resulted in the above action.

Members of the BARC responsible for the work party to put up the antennas and run the coax were Bob Wirth, KA6AMT; Charles Specht, W6VOO; Cal Turner, WB6YZY; and Harry Kline, W6ZT. □

## 2M to the rescue

Ed Nordell, WA0OUY

It is not very often that we, as amateurs, get to use our equipment for emergency service. It is always good to have our 2-meter rig on and tuned to a local repeater, just in case. This is what happened to us on our last trip to the Twin Cities.

We were traveling between Hastings and St. Paul on Hwy. 10 and 61. This is a four-lane road with a grassed median strip between. Just as we neared the outskirts of downtown St. Paul, the highway rounds a curve. As we came around the curve, the Toyota ahead of us seemed to hit the curb on the inside lane and went rolling over and over on the grassed median. Before we stopped, I had the mike in my hand calling for anyone on the 16-76 repeater for an emergency message. Someone was there and took the call and called the highway patrol and the emergency ambulance.

In the meantime, an off-duty St. Paul police officer stopped. He didn't have any radio equipment with him and he came over to find out what I had reported. In a very few minutes, the rescue squad pulled up and then later the highway patrol.

The two girls in the Toyota were pretty shaken up but were sitting up. They were given first aid by the medics and then taken by the ambulance to the hospital. The Toyota was totaled.

One important lesson learned from the experience: Always be aware of where you are located so as to give intelligent information to the ones who take the emergency message. And always have your rig turned on and monitoring some local repeater. You also take the chance of giving your name and address as a witness. And do have your driver's license along. I had to show mine, even though I was only trying to be of some help. □

— Worthington ARC, MN

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Bob Burns, N6ZH (left), and Richard Ravitch, WD6FIE, in front of the Red Cross van at the Ricon Iron Man Triathlon.

Ray Mote, W6RIC, is the DEC in that area.

First athlete in who made the whole route in less than eight hours, was Scott Molina. "Leading lady" was Julie Leach, who made it shortly thereafter. The hams were impressed that the first arrivals, though exhausted, waited to congratulate later arrivals. (ABC's *World of Sports* was to show the event on TV during June.) "In this contest, all who finished were considered winners," explained Assistant DEC, Bob Burns, N6ZH.

Quick work by amateurs and the Red Cross was effective when the usual minor traffic accidents occurred. There was one coronary incident — of a spectator, not a participant in the grueling competition.

At the end, the consensus was, "Of course the hams will be able to do their part for next year's Olympics!!"

## Hams appreciate EMTs — and vice versa

In May of this year, two Amateur Radio groups — separated by 3,000 miles — discovered the importance of having an emergency medical technician (EMT) and mobile Amateur Radio installations when assisting with communications for races.

Members of the Far West Repeater Association and Humboldt (California) ARC, who were providing communications for the Avenue of the Giants Marathon on 1 May, were credited with averting near tragedy when a diabetic youngster among the spectators collapsed.

Duane Beling, N6XT, who was on the spot, called Bob Roblin, W6RNL, the net control, to report that the youngster was apparently in insulin shock and that an

ambulance was needed at his location, approximately 7 miles from NCS. Pete Spruance, KE6LF, was dispatched to notify the ambulance crew of the nature and exact location of the emergency. The youngster was subsequently revived.

Because of the rapid and efficient manner in which the emergency was handled by Amateur Radio operators, the Humboldt County ARES/RACES organization has been strengthened in the southern part of the county. The Garberville Ambulance Service crew expressed their thanks and admiration for the job the amateurs performed at the marathon, and their willingness to work with ARES/RACES in planning for emergency communications in the future.

Coincidentally, the EMT with the am-

## Olympic 'rehearsal'

Lenore Jensen, W6NAZ

"It was a great rehearsal for Amateur Radio's role in the upcoming Olympics," said Len Drayton, WA6LAU, District Emergency Coordinator (DEC) for Northwest Los Angeles County. He referred to the Iron Man Triathlon Competition, held 1 May, which spread over two counties and 122 miles.

Coordinator Bob Burns, N6ZH, had efficiently recruited more than 70 amateurs to assist the Red Cross for the wide-ranging course of 106 positions which needed communication. His trusty computer and printer provided detailed instructions to all hands, and the amateurs did their work well. Many were on hand from 7:00 a.m. until 9:00 that night — several leap frogging between early and later check-points.

The amazing demonstration of endurance and skill by nearly 200 athletes involved: 1) swimming two miles in the 59 degree water of the Pacific (a good number had to be pulled out due to hypothermia); 2) after running up two flights, then riding a bike 100 miles from Malibu, over steep hills in Ventura County, up and over high Sepulveda Pass, down to West Los Angeles and out to Santa Monica; 3) the final effort was a mere 20-mile run to UCLA and back! Iron men and women indeed!

During the competition, the Red Cross (with hams communicating) workers provided wet sponges, water and the invigorating — though untasty — ERG and other necessities to keep the Iron people in top shape.

Many 2-meter repeaters were involved: K6JHX on Castro Peak, WA6ZTT in Ventura, K6AZE (the Malibu RACES machine), N6AHI of Oxnard, and W6ORD in the Hollywood Hills. On the 220 MHz band, WA6MPG, Tujung, and K6TZ on Santa Cruz Island were helpful. Simplex on 146.58 was busy as well.

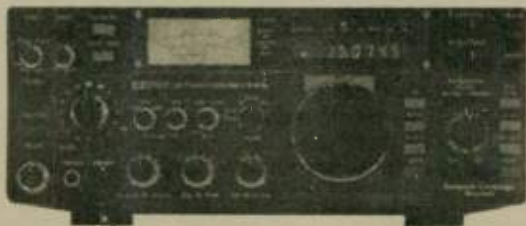
The volunteer operators came from several groups, such as ARES, Malibu RACES, LAPD ARES and others. Don Best, N6ALD, was the Red Cross Communications Coordinator. Sixteen different police divisions were involved as well as sheriffs.

Clancy Clark, N6FRB, organized the Malibu group while Paul Ryan, WB6RVA, was the Ventura coordinator.

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balance crew was Ken Reynoldson, KE6WC, who, as a result of the event, enrolled in Humboldt County ARES/RACES, bought an ICOM 2-AT, and volunteered his assistance in future public service events. Ken will join us as roving EMT-equipped Amateur Radio unit to play a key role where needed in southern Humboldt County. —*Pete Spruance (HARC and FWRA newsletter)*

Three weeks later, on 22 May, the Great Bay Radio Association (New Hampshire) provided communications for the annual Easter Seals Bike-A-Thon, sponsored by McDonald's restaurants of Dover and Rochester.

Approximately 12 mobile installations

## Drowning family saved by hams

Wimpy Wimberley, KB4LB  
East Central Florida ARRL DEC

On 22 April, at about 3:00 p.m., Frank Ambrose, N4CWJ, and his wife, Barbara KC4CE, were traveling east on Florida Highway 46 between Sanford and Mims, when they spotted a pickup truck which had left the road and gone into a water-filled ditch. The cab of the truck was in the water. The two amateurs stopped to investigate and discovered that a family consisting of a man, his wife and small children were in the cab and in danger of drowning as the truck settled into the mud.

Frank had his 2-meter rig in his car, so he called for help through WB4CGW/R

— each complete with transmitting and receiving sets installed in the private automobiles of the radio amateurs — were strategically located along the 30-mile route that encompassed the towns of Dover, Madbury, Barrington, Rochester, Berwick (Maine) and Somersworth.

The cyclists (about 80 total) were led and followed around the entire route by radio-equipped vehicles driven by radio amateurs.

Net control operator at the command center was Hank Hagman, W1OKU, and his son. All communications were coordinated with Bill Dodge, WA1PEL, who acted as communications director on the route itself. With Bill in his vehicle was an emergency medical technician (EMT)

(146.13/73) in Sanford. Bill Irwin, K3CQR, responded, determined the nature of the emergency and contacted local rescue through the autopatch facilities of N4CQQ/R, (144.77/145.37 MHz). Help reached the scene, and all the occupants were pulled to safety within 12 minutes! They were taken to a local hospital for treatment of minor injuries and general examination.

This points out two major items: 1) Amateur Radio is an important tool for saving lives on the highway, and 2) repeaters with autopatch capability can play an important role in emergency situations.

—*NOFARS — Balanced Modulator* □

## Use radio when assisting others

Frank Crowe, WB6UNH

We have all seen motorists along the highway in need of aid, and we generally stop and assist them when we can. Unfortunately, there are occasional cases where the person assisting becomes a victim of someone staging a breakdown. This is usually a case of theft (your pocketbook and your car) or someone who is escaping from the law who has a mechanical failure or is simply out of gas and would like to acquire another vehicle (yours). "Innocent females" sometimes have male accomplices waiting for you to stop.

If the person stopped along the road is truly disabled, he or she usually feels a little ill at ease with whomever might stop to assist. There are many documented cases where a motorist in trouble has become a double victim by being assaulted by a supposed "good Samaritan."

One way to minimize the danger of assisting a motorist or other person in

trouble is to wisely use your communication ability and equipment.

1) Be seen using your radio. Be sure that the person you are about to assist knows that you are in communication with another person. This will help to put at ease a truly stranded motorist and will discourage the use of violence against you. I know of at least one person who avoided attack by a group of persons by pulling out a hand-held radio. Suddenly he was not just a single person any more, but somebody who could get assistance rather quickly.

2) Document your assistance. Let somebody know the license number and location of the vehicle you are assisting. Now if you are not back on the air in a few minutes, people know where to start looking.

Now that precautions have been taken, everybody can feel a little more at ease with helping out.

—*Santa Barbara ARS, CA* □

from the Dover Civil Defense.

The foresight of having an EMT available on the route paid off. Approximately 5 miles from the Rochester finish line, one of the bikers had fallen and injured himself. The first to arrive at the accident was Dick Markwith, N1BOF, who relayed via radio the nature of the injuries to the EMT who was enroute. Instructions were then given over the air to Dick on how best to deal with the situation until trained help arrived. Only minutes later Rick, the EMT, arrived to administer first aid. It was quickly decided that an ambulance was required to transport the injured cyclist to Frisbie Memorial Hospital for additional treatment. —*Dick Leonard, WA1YQQ* □

## Hams go mobile for marathons

Among the many groups providing communication for the WalkAmerica of 26 April, held by the March of Dimes, were two areas in San Fernando Valley coordinated by Jim Fortney, K6IYK.

Actually, the West Valley section combined two walks around the same course, with walkers starting from Pierce College in two directions. The East area had a single-direction walk.

Great help was given by two amateurs who donated their motorhomes as locations for net control: Vic Walker, KR6D, and Ron Lisberg, WA6ONQ. Several volunteer operators assisted.

Whether it's a race, fund-raiser or an emergency, Lincoln ARC members can be counted on to assist with communications. May was an especially busy month.

On 14 May, 14 club members assisted the Lancaster County Chapter of the American Red Cross during its "Red Cross Walk" fund-raising activity. Communications was provided between officials and all checkpoints along the nine-mile walk route. Nearly 80 walkers participated and turned in pledges for over \$4,200 to assist with chapter funding. Pledges were made on a "per kilometer walked" basis.

On 15 May, 34 club members provided communications for the 6th Annual Lincoln Marathon. The course was monitored for medical and police personnel; an administrative net and two others which solely supported the public address announce — Reynolds Davis, K0GND — were also operating. As usual, officers of the sponsoring Lincoln Track Club pointed out that they couldn't have done it without the amateurs' help.

Six club members assisted with communications during the Lincoln Track Club's "Lincoln Mile" on 29 May. The Lincoln Mile consisted of seven heats over a measured mile course, including two open divisions as well as five "invitations," which included some of the finest runners in the area.

LARC members were posted at the start, quarter, half, three-quarter and finish points. In addition to relaying the "gun" so that all watches were started, club members along the course "broadcast" the top runners and times as the runners passed. This data went directly into the public address system at the finish. —*Info from Reynolds Davis, K0GND, Lancaster County EC*

Superwalk 11 took place on Saturday, 26 March 1983 — a beautiful spring day in Savannah. Superwalk is the annual March of Dimes Walkathon and this year's walk drew over 1,700 participants. Over 40 walking teams from area businesses contributed to the size of the crowd and collections which exceeded \$40,000.

Each walker was furnished with a paper painter's hat which had the route printed on it, and as they passed each checkpoint, the location was marked with a rubber stamp.

Savannah amateurs provided a radio safety net between the six checkpoints, two poop-out wagons, Red Cross First-Aid van, and the walk organizers — the Savannah division of the Association of Life Insurance Underwriters.

The route wound its way 20 miles across Savannah, from the sports stadium at the south end of the city through the campus of Savannah State College. —*Richard Smith, WB4APG* □

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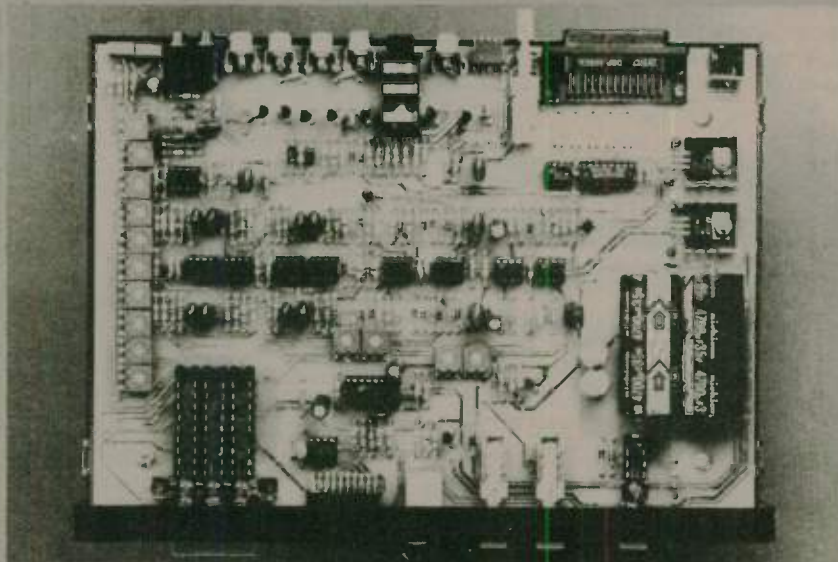
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# Focus on Amateur Radio

J.A. "Doc" Gmelin  
W6ZRJ

Some years ago at the Fresno Hamfest, Armond Noble — publisher of *Worldradio* — and I discussed the possibility of my writing an article on the workings of the ARRL.

I wrote the article on how the League functions and its organizational structure, and the article was printed. That article expanded into a series of three articles, and the series of three articles expanded into the 'ARRL Column' that has continued to this day.

At the time I started writing about the ARRL, I was Director of the Pacific Division and active in League policymaking. When I retired as Director in 1978, I continued to write the column from the viewpoint of a Past Director, and later as Honorary Vice President of the ARRL.

However, over the years my column has become more of a commentary on happenings in Amateur Radio in general, only touching on how these issues affect the ARRL.

As an Honorary Vice President, I receive various League publications and the Director's Letters, and from time to time, I attend ARRL Board meetings at my own expense.

In this way, I am able to keep up with happenings within the League and in Amateur Radio in general. But I am no longer involved with policymaking or directing the ARRL, and I only talk with League officers and Directors when I need information regarding specific issues affecting the League.

My comments in this column are made from the vantage point of nearly 40 years as a radio amateur — all as a member of the League, and most of these years as a League Official or appointee.

Of late, I have received letters from readers critical of my viewpoints, chastising me for making comments as an officer of the ARRL when such comments seem to conflict with League policy. From this, it would appear it is time for a change in this column — from one about the ARRL to one about Amateur Radio in general from the viewpoint of an "old-timer."

I've decided, first of all, to rename this column 'Focus on Amateur Radio.'

To focus means to make clear and sharp, to bring a specific item into clear view, to move in on and closely inspect something. That's what I will do in this column in future issues.

In some ways there will be little or no change, since I plan to bring readers as much new information on issues as possible, and I still plan to focus on issues from the viewpoint of the ARRL — or at least from the viewpoint of an individual amateur and League member with much

experience in ARRL operations. But I do plan to give more of my own view and interpretation of issues rather than try to explain the League's stand on various items as they develop. I intend to state my own views on how well the League has done in its stand on the various issues known, as well.

As an example, recently in this column I explained how the ARRL Board of Directors developed its stand on the matter of the no-code license, a stand that reflects an overwhelming viewpoint against a no-code license by League members and probably most radio amateurs.

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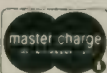


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I did not report that I personally oppose a no-code license and feel that if anything, the code requirement should be even greater than at present. I did not report that I feel all amateurs should be required to do at least some CW operation during each year they hold an amateur license. Nor did I report that I fault the ARRL Board of Directors for not taking a strong stand against the no-code license the minute the Notice of Proposed Rule Making was released, especially since they had already gone on record as opposed to any license not requiring a knowledge of the code.

I did not report that I believe Headquarters, under the direction of the Board, should have immediately sent out a survey to find out what the membership thought about the no-code license, or that at least individual Directors should have done so.

Why do I feel the code requirement should be retained?

Well, aside from the fact that CW still remains the basic form of radio communications, I have found that CW operation is enjoyable once it becomes an automatic skill.

If I had never been forced to learn the code when I first became interested in Amateur Radio, I never would have found the enjoyment and efficiency of CW operation.

When I commented on the no-code license in this column, I also commented on how some CB'ers I know feel about the no-code proposal. These comments included statements about the operation by CB'ers on frequencies near the 27 MHz citizens band.

My comments were misunderstood, and I discovered that I had broken Mark Twain's rule of writing which states, "You should write not so that you will be understood, but so that you cannot possibly be misunderstood."

To set the record straight, personally I'm against a citizens radio service of any kind. I was against the citizens radio service when it was first proposed in the early 1950's, and I'm still opposed.

I deplore the illegal operation that goes

on in the citizens band and the illegal operation by CB'ers using unauthorized frequencies between the 27 MHz citizens band and the amateur 10-meter band.

Quite frankly, I don't think the FCC is doing its job. I think that CBers using unauthorized frequencies should be cited. I think the FCC should find and prosecute illegal operators and, if necessary, impose fines and imprison illegal radio operators.

I think some of the operation the FCC allows to continue on both the citizens band and some amateur bands is a disgrace to the radio communications art and to the radio image of the United States.

I wonder if the accusation that the FCC is just another inefficient government bureaucracy not doing its job, may be true.

I also fault the League in not bringing malicious interference problems — especially on the 40- and 2-meter bands — to a resolution.

I made a motion bringing such problems on the West Coast to the attention of the ARRL Board of Directors at my first Board Meeting as a Director in 1968. Since that time, there has been a lot of talk and noise, but I have yet to see the League pressure the FCC to force them to do the job they are commissioned to do — i.e., regulate and police the radio services in the United States.

Well, there you have it — some personal comments on issues facing the Amateur Radio Service. They are mine alone, and don't represent the views of the ARRL or any League officer or Director.

In the future, I plan to pull no punches on how I view Amateur Radio today. I will "focus" on the issues from my own viewpoint. I invite anyone to make comments to me if you disagree, or even if it happens that you do agree with my viewpoint. My home QTH is listed in any of the last 20 years of the Callbook.

Your comments will become part of future issues of this column, if possible and when appropriate. My only goal in this column will be to 'Focus on Amateur Radio.'

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### Max Arnold

Former ARRL vice president, Max Arnold, W4WHN, has died. Max served as the Delta Division Director from 1970-1980 before being elected for a two-year stint as an ARRL vice president.

At the time of his death, W4WHN was serving as the secretary of the QCWA. A memorial fund in Max's honor is expected to be established soon. —Westlink Report

### William Gould

William B. Gould III, W1NP/K2NP, one of the charter members of QCWA's Central New Jersey Chapter #138, died Monday, 15 August 1983.

Bill had been awarded all of QCWA's Golden Certificates through the 60th year, and the Century Award. He was one of the first to receive his chapter's Diamond Jubilee Award.

W1NP/K2NP was instrumental in the research and development of radar equipment, and was solely responsible for the installation and operation of the West Coast radar network at the onset of World War II.

An Amateur Radio operator since 1914, Bill was a member of the ARRL, Antique Wireless Association, Veterans Wireless Operators Association, Garden State Wireless Pioneers, Morse Telegraph Club, Radio Society of Great Britain, QCWA, OOTC and IEEE. □

### Wilbert Monola

Wilbert E. Monola, W3WBA, of Erie, Pennsylvania, died on 05 July 1983. He was first licensed in 1941, with the call letters W8WBA. He was president of Mini-Products, Inc. in Erie, Pennsylvania, incorporated in 1959.

He retired in 1972, after 30 years of employment at Erie Technological Products — formerly Erie Resistor Corporation — as Engineering Foreman of Test Equipment Maintenance, and was later transferred to the Erie High Frequency Division in the capacity of Senior Engineering Associate.

Taking on a task abandoned by others, Will designed the tube sockets used in the 10kW transmitter aboard the C5A Galaxy aircraft. It was due to such projects that he frequently communicated with General Curtis LeMay. He made developments on transmitters essential to the McDonnell Douglas Moon Lander Project.

He was also a partner of Erie Electronic Supply Company, a distributor of electronic devices and components from 1957 until 1959.

Will invented the B-24 Mini-Beam — a new design concept, efficient as a miniature 4-band beam antenna. The B-24's unique design gave a new dimension in areas where a large beam or long-wire antenna installation was impractical. Both the B-24 Mini-Beam and the newer HQ-1 Mini-Quad have been used in special applications other than Amateur Radio: for public service, military, marine, maritime and diplomatic installations.

W3WBA was member of the American Radio Relay League and the Quarter Century Wireless Association. □



## STATION APPEARANCE

Bill Coons, KD9I, of Lombard, Illinois is our Station Appearance winner this month. A certified ARRL instructor, Bill spends most of his time teaching Morse code to those who wish to upgrade to General and Extra. Several hams have



Bill Coons, KD9I, wins the Station Appearance for October.

### Golden year for W3IYI

Cliff Porter, W3IYI, of Indiana, Pennsylvania, is celebrating his station's 50th anniversary this year. It was on 25 March 1933 that Cliff received his operator

license from the FCC. He got his station license on 14 April of that year — W8IYI.

When all of Pennsylvania was taken into the 3rd call area in 1945, and until his renewal application in 1956, Cliff's call was W3LEJ. On the 1956 application, he

requested a call change to W3IYI — and received it.

W3IYI has earned the following awards: A-1 Operator, WAC, WAS, ORS, RCC, Code Proficiency 35, the National

Certificate of Merit, and the Chief Green Tree Award.

"As a code teacher, I have helped at least 300 aspirants to achieve Amateur Radio operator status," Cliff writes. "These have been 50 wonderful years."

(NOTE: Cliff is a blind ham. — Sheldon Davis, W3FVU)

—Indiana County ARC, PA □

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## Activities Calendar

24-25 September Scandinavian Activities Contest (SSB)  
 24-25 September CAN-AM Contest (CW)  
 29-30 October CQ World Wide DX Contest (SSB)  
 12-13 November DARC European DX Contest (RTTY)  
 26-27 November CQ World Wide DX Contest (CW)

### W-100-N

214. K7LYT Herbert D. Williamson  
 215. JA1VDJ Shigeo Kanehira

### China (BY)

BY1PK continues to remain active, with many of the deserving gaining a new DXCC country. Bill Poelmitz, K1MM, was allowed operation at the station for one hour on 07 July, where he worked 20 meters, CW only. Bill isn't the first non-Chinese national who has operated the station. Recently, YU2DX — a hot operator — was there and fired off contest-style contacts to many needing that one, including this DX editor. BY1PK has been found on other bands, including a report of the station on 21.039 MHz around 0100 UTC.

The turn-around time on QSL cards for BY1PK is excellent. It took only two weeks for my BY1PK to arrive from the date I mailed my request, which included IRC's. I did work BY1PK a second time, with Tong the operator. As I wanted a card with a national as the operator, I again sent a request, but this time with a "green stamp" in lieu of IRC's. Two weeks later the second QSL card arrived.

When providing a self-addressed envelope, use a larger-than-normal-size envelope — not because of the QSL card size, but so there is room for all the stamps they place on the envelope. On my first request, BY1PK used one of their own envelopes.

### UAE (A6)

At present, the only valid station for this one is A6XJC. It is reported that the operator likes weekends, SSB and lists only. The lists have been run by WA3HU? and his QSL manager, WB3CQN. I'm looking for this one 14.250 to 14.260 and 21.300 MHz from 2200 to 0100 UTC.

### St. Paul Island (VE1)

St. Paul Island is to be activated beginning 23 September and continuing through 03 October, 1.8 MHz through 432 MHz, all modes (CW/SSB/RTTY/OSCAR). The calls of the operators going on this one include VE1ASJ, VE1CEG, VE1CER, VE1TT, JH1VRQ, W1GNC and WB4OSN. The call assigned for this operation: VE1SPI.

### Cyprus (ZC4/5B4)

A few calls have been reported active from Cyprus. Look for ZC4BI, who has been found on 14.021 MHz from 0400 UTC. This station has been active on the new 30-meter band and was worked on 10.121 MHz at 2200 UTC.

Other ZC4 types include ZC4RB on 14.024 MHz at 2200 UTC; ZC4RP on 14.038 MHz at 0100 UTC; and ZC4YC on 21.005 MHz at 1200 UTC.

The other prefix, 5B4, for this one includes the call 5B4IR, who has been nabbed on 14.157 MHz, or nearby at 0200 UTC.

### Anguilla (VP2E)

Walt Amos, K8CV, reports that a group of five amateurs, organized by Jeff Maass, K8ND, will be heading for Anguilla Island for the period 21 November through 14 December, as the VP2E Contest Group.

The contests will be by individual operators on their own bands. Jeff says he will be on 80 meters during the contest as VP2ES. He also plans to try some RTTY

operation during the non-contest periods.

### Norfolk Island (VK9N)

Sandy VK9NC is now back in Western Australia, signing VK6VZ. While on Norfolk Island, Sandy made 2,000 contacts — mostly CW — during a period of three months, using an 18AVQ vertical antenna.

Jim Smith, VK9NS, of Heard Island fame, is another active station on the island. Look for Jim, who has been reported on 14.220 MHz after 0600 UTC, and also on 75 meters on 3.799 MHz after 1000 UTC. You don't like SSB? Then try 3.503 MHz, as he has been reported down there around the same time period.

### Kermadec Island (ZL/K)

Jim Smith, VK9NS, of the Heard Island DX Association, is planning for a seven-day DXpedition on Kermadec Island this November. Jim is looking for financial assistance; those DXers who wish to contribute may do so to: HIDXA, P.O. Box 90, Norfolk Island, AUSTRALIA 2899.

There are other rumors of activity coming up from this one where Warwick ZL1WI expects to be on the island group in September, but not on the air until January. Also, W. Latham, ZL3AFH, is expecting to be assigned to the choice DX spot some time this year.

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## Clipperton Island (FO8)

Latest date set for the Clipperton DX-  
pedition is next spring, sometime in  
March or April. The U.S. team members  
are reported to include Ross Forbes,  
WB6GFJ; Charles Epps, W6OAT; G. Kip  
Edwards, W6SZN; Richard Assarabow-  
ski, K1CC; and Greg Gumbel, N6PO.  
Transportation details are being worked  
out now.

## IRC's or green stamps

When do you send a DX station IRC's,  
and when do you send "green stamps"?  
That cannot be easily answered. Normal  
practice is, never send currency to com-  
munist countries. Earlier, I commented  
that I worked BY1PK twice, sent IRC's  
the first time and "green stamp" the sec-  
ond time. I received a quick reply both  
times. China may be an exception to the  
rule. One DX station not to send "green  
stamps" to is YI1BGD in Iraq as they  
cause "problems". For this one, 3 IRC's  
will do.

Now, where "green stamps" are accept-  
able, I usually will use this method where  
the required number of IRC's required is  
more than 2, or I just don't have the  
IRC's around. Most DXers do this now,  
or acquire their IRC's "cut-rate" from a  
QSL manager. The IRC's can be used  
over and over again until redeemed for  
postage at your local post office.

## Prefixes

Those EV5 prefixes you may be hearing  
are located in Kiev to celebrate the 40th  
anniversary of the end of German occupa-  
tion in 1943. There will be a special event  
station using the call R5U from nearby  
(UB5XCM). All cards will be active  
through 06 November.

During the month of August, Joseph  
Cassaro, F6ATQ, and Georges Rapuzzi,  
F6BQY, were in Algeria using the special  
prefix of FX0 and were to have been ac-  
tive on 10, 15 and 20 meters using CW.

Another one of those World Com-  
munications Year special prefixes is the  
5B0 from Cyprus. And, down in Costa  
Rica, several amateurs are using the  
TE32 prefix to celebrate the 30th anniver-  
sary of the Radio Club of Costa Rica.

## IOTA

From time to time we have listed  
various islands applicable for Geoff  
Watts' Islands on the Air (IOTA) awards  
program. Several of the islands do not  
count as separate DXCC countries, so are  
of no value unless you are an island  
hunter. So, for those of you who are pur-  
suing these awards or who just enjoy  
chasing islands, the following have been  
reported in the *DX News Sheet*:

			MHz	UTC
AF-42	ED9IAL	Alboran Island	21.200	1245
NA-25	J87BS	Grenadines	21.280	2100
SA-03	PY0FE	Fernando de Noronha	28.015	1600
EU-36	LA9PX	Hitra Island	14.330	1000
EU-57	Y48ZA	Rugen Island	14.220	0730
AN-11	KC4USV	Ross Island	14.215	0700
OC-67	FO8JP	Bora Bora	14.107	0700
SA-12	YV7QP	Margarita Island	14.160	2200
AN-05	VK0GC	Macquarie Island	14.292	2145
NA-80	C6ABA	Abaco		
EU-84		Lidingo Group		

The last island group is a new reference  
number, located 59½°N 18½°E, and con-  
sisting of the islands Ingaro, Lidingo,  
Ljustero, Orno, Uto, Vaddo, Varmdo, etc.

## DXCC

The following calls are not being ac-  
cepted for DXCC credit at this time:  
A7XGI, AD0S/KH5, G3JKI/5A,  
HH0N/KP1, IV3OSH/5R, JA1DNG/YI,  
KF10/CE0X, TI9VVR (July operation  
only), VU7AN (Lans operation), and  
YI1AS.

Also included in the above list are all  
A6 calls after 11 February 1979, (except  
for A6XJC, which is valid); all C9 calls  
after 1978; all XZ calls (XZ5A and XZ9A,  
etc.); and the recent 1Z calls. This list is  
by no means complete. Those shown  
above are the common ones that in-  
dividuals are submitting to Newington  
for credit.

Hold your cards for S2BTF, DJ5RT/TT  
and DL9ZAX/TT, as the DXCC desk is  
awaiting documentation of this operation.  
It has been requested.

Thanks to DXCC-man, Don Search,  
W3AZD, for the above information.

## So, you think you are a DXer!

In the last issue we ran that quiz  
created by Bob Fain, KC8PX, of the  
Stark DX Association in eastern Ohio. As  
promised, here are the results, followed  
by an explanation. The first column cor-  
responds to the number of each question  
in the quiz.

	A	B	C	D
1.	a	d	c	b
2.	a	c	b	d
3.	a	b	d	c
4.	d	b	a	c
5.	c	a	d	b
6.	a	c	b	d
7.	d	b	a	c
8.	c	a	b	d
9.	c	b	d	a
10.	c	d	a	b
11.	b	d	c	a
12.	d	a	b	c
13.	c	d	b	a
14.	b	a	d	c
15.	a	d	b	c

For each question circle your answer, (a,  
b, c or d). There will be only one correct



If you ever worked Hong Kong, perhaps you worked this gentleman. Meet Phil Weaver, VS6CT, who received *Worldradio's* Worked 100 Nations Award number 169, dated 05 April 1982. Many have met VS6CT in person, as he has attended the Visalia DX Convention for the last two years. (VS6CT photo)

answer per question. Then add up the  
number of circled answers in each column  
(A, B, C or D). If you score 8 or more cir-  
cled answers in any one column, you will  
have some idea of which category of DXer  
you fit in.

A great deal of thought was given to  
those questions and answers, and not  
everyone will agree. The categories were  
listed last month, but here they are again.

- A. Lid and Closet CB'er.
- B. You need to try harder.
- C. You are learning and trying hard.
- D. DX'er First Class — Honor Roll Material.

We assume that no deserving DX'er  
wound up in the first category. If so, you  
surely don't take Amateur Radio serious-  
ly, even if you have no interest in working  
DX.

## DX contests in reverse

The ARRL and CQ DX contests are the  
two most popular and actively supported  
by our club members (NCDXC). Partic-  
ipation in other DX contests is not as  
intense, and many of them have little ac-  
tivity in "W" land. They really have very  
little to attract the dedicated DX'er. By  
and large, they are pretty well ignored.

Why should foreign amateurs cooperate  
with U.S. amateurs in the CQ and ARRL  
tests when we do poorly in cooperating  
with them in theirs?

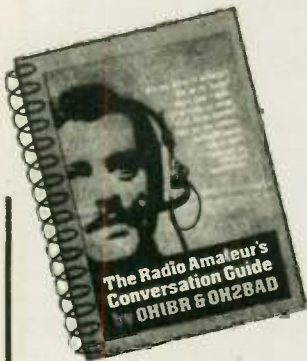
It seems only proper conduct on our  
part, as good neighbors, to provide some  
USA contacts for the rest of the world on  
their favorite contests. Just consider the  
All Asian Contest, IARU, and the many  
others sponsored by Amateur Radio  
societies. How many contacts have we  
made in these?

If each NCDXC member would make an  
effort to make five or 10 contacts in  
"their" contests, perhaps they would  
reciprocate and make five or 10 contacts  
with NCDXC members in "our" contests.  
That wouldn't be too hard for us to do,  
and if the non-U.S. DX'er would do the  
same for us, the ARRL and CQ contests  
would be more fun and exciting. So let's  
be a good "DX neighbor" and reverse the  
process of one-way contesting. It can't do  
any harm, and it might do a great deal of  
good.

The above comments are those of Ray  
Griese, K6FD, which were printed in the  
August issue of *The DXer*, the official  
newsletter of the Northern California DX  
Club, Lyle Meek, N6BLN, Editor.

## Clubs

New officers of the Redwood Empire  
DX Association include Dick Schepler,  
AF6F, president; Ray Miller, KB6HT,  
vice president; and Chod Harris, VP2ML,  
(please turn to page 24)



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- 100 Watt Output Transmitter with exceptionally low IMD
- VOX
- Speech Compressor
- Tunable Notch Filter
- RTT and XIT
- All Mode Squelch
- Scanning
- ICOM System Compatibility

**Optional Accessories:**

- IC-PS15 External Power Supply

- IC-PS35 Internal Power Supply for the ultimate in Portability
- IC-2KL Linear Amplifier
- IC-SP3 External Speaker
- IC-MB12 Mobile Mounting Bracket
- IC-AT100 Antenna Tuner (100W)
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- IC-HP1 Headphones
- IC-EX241 Marker Module
- IC-EX242 FM Module
- IC-EX243 Electronic Keyer
- IC-FL52A 500Hz 455kHz CW Filter
- IC-FL45 500Hz 9MHz CW Filter

- IC-FL54 270Hz 9MHz CW Filter
- IC-FL53A 250Hz 455MHz CW Filter
- IC-FL44A 2.1kHz 455kHz SSB Filter
- IC-SM6 Desk Mic
- IC-HM12 Hand Mic

The IC-745 is the only transceiver today that has such features standard... the number of options and accessories available... and such a low price.

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All stated specifications are approximate and subject to change without notice or obligation. All ICOM radios significantly exceed FCC regulations limiting spurious emissions.

# DX World

(continued from page 21)

secretary/treasurer and editor. Further details as to membership in this Northern California club is available from REDXA, P.O. Box 4881, Santa Rosa, CA 95402.

The Central California DX Club also elected new officers with Earl Warford, W6MEL, president; Bob Smith, W6GR, and Chuck McConnell, W6DPD, vice presidents; and Carl Boone, WB6VIN, secretary/treasurer. Additional details on this club are available from the secretary at 1642 7th Place, Delano, CA 93215.

Several Sacramento area DX'ers got together for an informal luncheon at the Beverly Garland Motor Lodge on 23 August. Thanks to George Leone, K6SG, for pulling this together.

## Cuban awards

The following awards "Programa de Diplomas" are that of the Federacion de Radioaficionados de Cuba.

### Cuba Award

To qualify for this award, you must work all eight Cuban call areas, CM1/CO1 through CM8/CO8. Any missed district may be substituted by a radio club station, identified by a three-letter suffix. No more than three districts can be substituted. All contacts after 01 January 1959 are valid.

### Caribbean Award

This award requires confirmation of 20 or more of the 32 countries in the Caribbean, including those countries with their coast to the Caribbean; XE, VP1, TG, HR, YN, TI, HP, HK and YV. If any of the countries or call areas change prefixes, the old and new are valid. Cuba must be one of the countries listed. All contacts after 01 January 1959 are valid. KG4 prefix calls are not acceptable.

### Cuba DX Group Award

To qualify for this award, you must work at least four members of this group, with all contacts to be made after 01 September 1980.

Each award requires a fee of 12 IRC's (or U.S. \$2). Send no QSL cards, but have your list of contacts and QSL cards certified by at least two licensed radio amateurs. Submit your requests to: F.R.C. (Award Department), P.O. Box 1, Havana 1, CUBA.

Check with the Latin American DX Net every Wednesday and Friday on 14.195 MHz at 0200 UTC.

## Quest for a QSL

In the June issue of Worldradio, Bob Hatter, K7RDH, made a request for help in obtaining a QSL card for a contact with EP2JJ. Bob's request paid off, but in an unusual way which is quite interesting. Bob writes:

Back in October 1978, I worked Jim EP2JJ, who was an American State Department Official at the embassy in Tehran. At that time, he was a new DXCC country for me, so I sent a

QSL with IRC's promptly to the P.O. Box address he gave me, and also sent an insurance QSL via the bureau. If you will remember way back then, you will probably understand why I never received a QSL — those Americans who could escape the country did so; others — not so lucky — were held prisoner for 18 long months by the regime of the Ayatollah! EP2JJ was one of the lucky.

Since that time, it was clear that EP2JJ had moved on to greener pastures, but where to send him a QSL? Several routes were tried during the next five years with no results. Finally, in desperation, I wrote Worldradio and requested that they print my desire to find an address for the now ex-EP2JJ. Sharp-eyed readers may have seen my short note in the June '83 'DX World.'

Yes, folks, people do read every word of Worldradio... advertisers, attention!

DX operator Daniel 4Z4OL, from Natanya, Israel, saw the note, and in an unrelated letter to Al Lescard, K1TJV, mentioned that he had received a QSL from EP2JJ, for a QSO in 1978, and that EP2JJ was stateside W6JRK. In turn, Al K1TJV was kind enough to write me and tell me what he had found out. Daniel 4Z4OL even made a photocopy of his very own EP2JJ QSL card and sent it along.

Next step after the excitement died down was to look W6JRK up in the 1983 Callbook... imagine my disappointment — he was not listed. Scrambling for previous years' stateside Callbooks, I finally hit paydirt... W6JRK became N5BKW a couple of years ago... Quick! back to the '83 Callbook and there he is... Silver City, New Mexico. One SASE and about six days later, I am the proud possessor of my own EP2JJ QSL.

Yes, I did a silent prayer or two during those six days that he had the logs, and that I was in them! Quite a trip for one DX QSL quest... Iran to Arizona to Israel, then Massachusetts to California and finally, bingo! New Mexico. Thanks, Worldradio.

Bob adds a final note that after over four years of waiting for his EP2JJ QSL card, that contact was his only Iranian QSO in 31 years of Amateur Radio. Actually, how Al K1TJV got into the picture, is that Daniel 4Z4OL thought he was QSL manager for VP2KBE. Al helped Daniel out by checking the correct source for VP2KBE, (via K1IVJ). In turn, Daniel reciprocated with the EP2JJ information and asked Al to convey the information to Bob K7RDH. Interesting!

## FI8 — fact or fantasy?

Worked by many, confirmed by few, French Indochina was on the countries list until the end of 1950. Consisting of what now is known as Vietnam, Cambodia and Laos, that portion of the world has remained rare.

In the 1930's, Rene Lebon was active from Hanoi. Signing FI8AC and using a half-wave zepp, he worked the world. With his crystal-controlled 50 watts, he made contact with 37 zones and 43 states. Unfortunately, his cards would not count for post-war DXCC.

After the war, Paul Ferrand was attached to the French embassy in Saigon. An avid amateur, he was determined to

get on the air. Letters were dispatched to the president of REF, the Minister of Defense, the Minister of the French Colonies, and to local authorities, but favorable word was never received.

Not one to become discouraged, Paul put his homebrew rig on 20 CW and commenced operation as FI8ZZ. His 15-watt signal was worked far and wide, but QSL's were sparse. On the fourth card he issued, he noted: *FI8ZZ is therefore a clandestine station and makes all transmissions at his own risk...*

In July 1948, Paul was visited by Willard Hunton, W6ODD, who spent a month in Saigon and signed W6ODD/FI8. Using push-pull 807's running 40 watts and a vertical zepp, his big signal on 20 CW kept everyone scrambling. He sent QSL's for all his QSO's when he returned to the states. Everything was CW. Of the handful of cards issued, no phone QSL's were ever to come from FI8.

In 1951, French Indochina was placed on the banned country list. FI8AB and another amateur — Jean-Marie Legeay, FI8AZ — were active from Saigon from 1952-54 but contacts did not count for DXCC. In 1952, F.E. Handy (W1BDI, former Communications Manager of ARRL) wrote a concerned DX'er: *Sorry about FI8AB and any other FI8's, but to work them is a sure way to invite an FCC citation.*

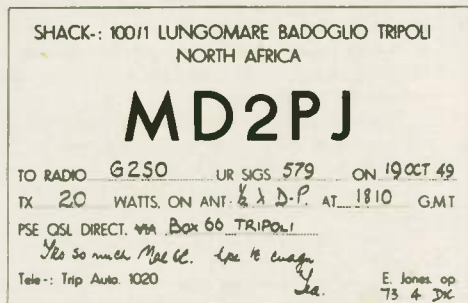
With partitioning of FI8 to XU, XV and XW, the book on French Indochina was closed.

The above article was written by Jan Perkins, N6AW, and printed in the July 1983 issue of the Southern California DX Club's newsletter, *Bulletin*. Michael Hudgens, W6YQ, Editor.

In the January 1979 issue, a copy of Rene's old FI8AC card was printed in the Antique QSL Department. The card was submitted by John Gerig, W6NHU, along with a 1938 photo of Rene, the operator of FI8AC.

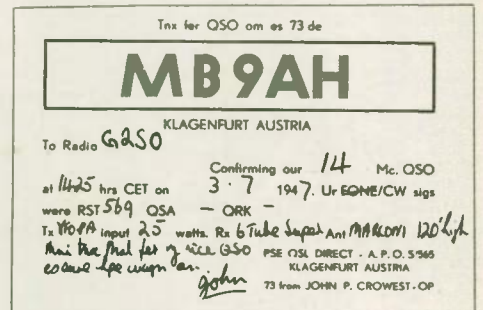
## Antique QSL Department

The following two QSL cards date back to the 1940's, following the end of World War II, and were submitted by Mal Geddes, Z23JO. Prefixes come and go, and in some cases now belong to other countries that in no way were related to the previous owners of such prefixes.



The first of the two cards submitted by

Mal was for contacts he made from his former call of G2SO and is for a contact made with MD2PJ of Tripoli on 19 October 1949. The operator was E. Jones for the CW contact made at 1810 GMT, but no band is indicated. The MD2 prefix became the 5A2 prefix for Libya in the 1950's.



Here we have another one of those prefixes no longer in use. The call MB9AH was used by John Crowest for a 1947 contact with G2SO. The station was located in Klagenfurt, Austria. This was not the normal prefix for that country, but was the prefix used by the British Occupational Forces in Austria following the war. The Americans had the cumbersome prefix of OE13. This contact was another CW contact made on 20 meters.

## QSL routes

A4XYA	—G4ADJ	C30LAC	—EA5AQX
A22GM	—N4FD	C31FO	—F3BW
A35SM	—WB7OVA	CS6LN	—CT1LN
A92BW	—K2IJL	CS7LN	—CT1LN
AJ9D/HH2	—AJ9D	CY8WCV	—CS1ARE
			—VE3GCO

# Propagation

## Maximum Usable Frequency from Burbank, CA (courtesy of W6LS)

The numbers listed in each column are the Maximum Usable Frequency (in MegaHertz) for contacting five major areas of the world (Nairobi, Tokyo, Melbourne, Frankfurt, Rio de Janeiro) for low fire angle antennas.

You can get a free complete set of these predictions for both high and low angle antennas, Maximum Usable Frequency (MUF) and Frequency of Optimum Transmission (FOT). Requests should be sent to W6LS, 2814 Empire, Burbank, CA 91504. Each request should be accompanied by a self-addressed stamped (28¢) envelope at least 9" x 1 1/2".

## NOVEMBER 1983

UTC	AFRI	ASIA	OCEA	EURO	SO AM
0100	20.8	27.6	31.9	11.3	21.8
0200	16.3	22.4	28.6	11.3	18.7
0300	14.1	18.3	23.7	10.5	16.7
0400	12.3	15.8	20.4	9.5	15.5
0500	11.3	13.9	18.3	8.3	14.8
0600	11.2	13.3	17.0	8.6	14.5
0700	11.7	11.6	16.1	11.1	15.0
0800	11.9	12.1	15.0	12.0	16.0
0900	11.6	12.0	13.8	12.4	16.0
1000	10.6	12.6	13.7	12.0	14.2
1100	9.5	13.1	14.2	10.7	12.0
1200	9.5	12.2	13.8	9.8	12.3
1300	12.0	11.4	12.1	11.1	16.5
1400	16.6	11.4	12.4	15.1	23.2
1500	21.5	13.7	17.6	20.5	29.1
1600	25.2	13.0	20.8	23.9	32.0
1700	27.8	12.0	19.7	20.6	32.5
1800	30.1	12.2	20.2	17.0	32.2
1900	31.1	13.1	22.5	13.8	32.1
2000	31.3	16.7	25.2	11.4	32.5
2100	31.0	22.2	27.0	10.3	32.5
2200	29.7	28.0	27.6	10.2	31.6
2300	27.8	31.5	28.4	10.6	29.2
2400	24.8	31.5	30.1	11.0	25.7

## N6KW QSL Cards

Are you tired of the same old standardized QSL cards? Do you have your own idea for a card? Do you want a photograph QSL? You can have a card that fits you, for less than you might think. Call or write for details and free samples. Standard styles also available.

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The DX EDGE, P.O. Box 834, Madison Square Str., New York, N.Y. 10159

An information flyer is available free of charge.

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CY8MA	-VE4TZ	TZ8DC	-DL8DC
DL3WB/HB0	-DL3WB	UU2M	-UK2BBB
EI2VNC	-ON5KL	V3WTM	-WD5CKF
EI2VND	-ON5KL	VE3MQH/4U	-VE3MQH
EI2VNE	-ON6NW	VP2KBB	-K8EFS
EK1O	-UK1OAZ	VP2MKS	-K5VZN
EK0KA	-UA9OBA	VP2VEG	-W0DVZ
EL2AE	-W2AYJ	WA8ZLJ/HR0	-DA2PP
EL7C	-DK5VI	XT2AU	-DJ5RT
EL9B	-KD4ZS	XT2EB	-DF5EO
EP2JJ	-N5BKW	XU1AA	-W1YRC
	(See Note 1)	YB5ASO	-W4BBP
F9LN/FC	-F9LN	YB0ARA	-K6DLV
F0CH/FC	-HB9TL	YL3M	-UK3MAA
F0CYA/FC	-HB9BFS	YP3A	-Y03KAA
F0WV/FC	-ON4TJ	Z21GO	-WA4SKE
FB8WI	-F6GBX	ZD8JT	-G4MRO
FC0CQZ	-DK6DC	ZD9CJ	-K0VZR
FP0SM	-W1A1M	ZD9CS	-KA1DE
FY0GS	-DK4VW	ZD9GA	-KA1DE
G3OLU/SV5	-G3OLU	ZK1CH	-ZL1SD
G4DUW/DU1	-G4DUW		(See Note 2)
G4JMB/CT3	-KB2XS	1A0KM	-10MGM
GU4DL4BBO	-DL2BE	1Z9B	-W7PHO
HH2WL	-KM7Z	3A2LF	-3A2ARM
HL1AHS	-JN1GKC	3B8DB	-K5BDX
HV2VO	-10GPY	3B9FK	-3B8FK
J88AN	-W3BL	3D6AK	-G3WPF
JD1AFL	-JA1NVG	3X4EX	-N4CID
JX9VCA	-LA7JO	4K1GDW	-UQ2GDW
K2KTT/PJ7	-K2KTT	4K1HK	-UA3AEL
K4DY/SV5	-K4DY	4N5KU	-YU5CXY
KA9IBG/PJ4	-WB2LCH	4X4WCY	-4X4AT
KP2I	-WP2AAP	4X6WCY	-4X6DW
N2EDQ/KH7	-KH6JEB	5H3SG	-KA3PIB
N7CXB/ST2	-WA2KAB	5N9GM	-18X1U
OH2BSA/OH0	-OH2BSA	5Z4PI	-W3HNK
OJ0MA	-OH0NA	9J2JN	-KB2ZT
OZ9LM/OY	-OZ9LM	9V1VG	-ON5KL
PY0FE	-PY1BVY	9K5WP	-WB6VKD
TR8DR	-W2PD	9Y4NP	-W3HNK
TS8WCY	-IS0LYN	9Y4VU	-W3EVV
A4XJV	-P.O. Box 5530, Ruwi, OMAN		
CE4AD	-1 Sur 1350, Talca, CHILE		
CE8ABF	-A.F. Anichich, Estancia Lago Gaviota, Punta Arenas, CHILE		
CO6KW	-P.O. Box 955, Santa Clara, CUBA		
CP8GB	-P.O. Box 35, Riberalto, BOLIVIA		
CP8HD	-P.O. Box 101, Beni, BOLIVIA		
FG7CC	-P.O. Box 1212, Pointe a Pitre, 97184 GUADELOUPE		
FH8CB	-P.O. Box 50, MAYOTTE		
GJ4/DA0ERA	-Selwerder Dwarsstraat 33, 9717GM Groningen, HOLLAND		
H44AP	-P.O. Box 581, Honiara, SOLOMON ISLANDS		
HR2AMC	-P.O. Box 490, San Pedro Sula, HONDURAS		
J20WYC	-B.P. 1076, DJIBOUTI		
J27RDD	-B.P. 1076, DJIBOUTI		
KV4BT	-P.O. Box 8147, St. Thomas, VIRGIN ISLANDS 00801		
KX6QO	-P.O. Box 444, APO San Francisco, CA 96555		
OX3KM	-P.O. Box 103, 3953 Godhavn, GREENLAND		
P29GO	-P.O. Box 457, Lae, PAPUA NEW GUINEA		
SV5FD	-P.O. Box 362, Rhodes, GREECE		
TL8TX	-P.O. Box 205, Bangui, CENTRAL AFRICAN REPUBLIC		
TU2KC	-12 B.P. 054, Abidjan, IVORY COAST		
TZ6FE	-F. Deutsch, c/o ECBM, Box 3268, Dakar, SENEGAL		
YC5AK	-P.O. Box 132, Padang, INDONESIA		
ZY1OL	-P.O. Box 70048, 22422 Rio de Janeiro, BRAZIL		
4S7EF	-P.O. Box 70, Colombo, SRI LANKA		
7P8CL	-Radmansbacken 14556, Norsborg, SWEDEN		
	(See Note 3)		
9K2DZ	-P.O. Box 4450, KUWAIT		

**Notes**  
1. N5BKW is formerly W6JRK, who was the operator at EP2JJ in 1978.  
2. Use 1983 Callbook address only.  
3. This is the address for QSL manager SM5GOJ.

This issue's contributors include Z23JO, K8CV, K7RDH, W3AZD, Stark DX Association, Southern California DX

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**Worldradio**  
Please see page 9

Club, Central California DX Club, Northern California DX Club, Redwood Empire DX Association, Kansas DX Association, Kansas City DX Club, Grupo Argentino de CW, ARRL Letter, The Long Island DX Bulletin, The DX Bulletin and DX News Sheet.

I didn't work all that DX I had planned to this summer while the XYL and daughter were on tour. Instead, I went to work in the backyard, cleaning up a few years of weeds and blackberries that had taken over. The bands were not that good anyway. So, if your XYL is out of town and the bands are dead, pull weeds! 73 de John, N6JM

## What's new with YASME

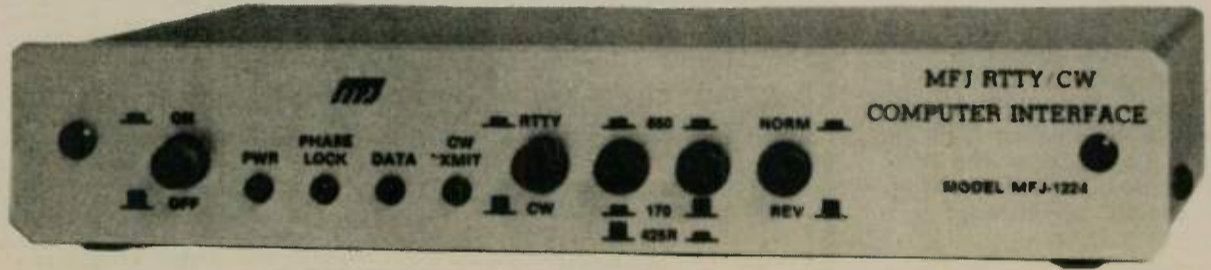
**Peter Onnigan, W6QEU**  
During the ARRL Division Convention in Reno, 19-21 August, Iris and Lloyd Colvin presented color slides and a running commentary on their last three YASME DXpeditions. These were Jordan, where they operated as JY8KG; Saudi Arabia as HZ1AB; and Abu Ail, an island in the Red Sea.  
YASME (which means good luck in Japanese), while not paying for the Colvins' expenses, does sponsor them, take care of QSL cards, and offer moral support. The Colvins have operated from 151

different ARRL "countries" and have received over 500,000 QSL cards, which are meticulously stored in their San Francisco Bay Area, California home.  
The Colvins announced that they were leaving in September for a six-month tour of South America and would be operating from Peru under the very special call sign, 4T4WTY. The suffix stands for World Telecommunications Year.

Please send NEWS and PICTURES to Worldradio

# MFJ RTTY / ASCII / CW COMPUTER INTERFACE

Lets you send and receive computerized RTTY/ASCII/CW. Copies all shifts and all speeds. Copies on both mark and space. Sharp 8 Pole active filter for 170 Hz shift and CW. Plugs between your rig and VIC-20, Apple, TRS-80C, Atari, TI-99, Commodore 64 or most other personal computers. Uses Kantronics software and most other RTTY/CW software.



- Copies on both mark and space tones.
- Plugs between rig and VIC-20, Apple, TRS-80C, Atari, TI-99, Commodore 64 and most other personal computers.
- Uses Kantronics software and most other RTTY/CW software.

**\$ 99<sup>95</sup>**  
MFJ-1224

This new MFJ-1224 RTTY/ASCII/CW Computer Interface lets you use your personal computer as a computerized full featured RTTY/ASCII/CW station for sending and receiving.  
It plugs between your rig and your VIC-20, Apple, TRS-80C, Atari, TI-99, Commodore 64, and most other personal computers.  
It uses the Kantronics software which features split screen display, 1024 character type ahead buffer, 10 message ports (255 characters each), status display, CW-ID from keyboard, Centronic type printer compatibility, CW send/receive 5-99 WPM, RTTY send/receive 60, 67, 75, 100 WPM, ASCII send/receive 110, 300 baud plus more.  
You can also use most other RTTY/CW software with nearly any personal computer.  
A 2 LED tuning indicator system makes tuning fast, easy and positive. You can distinguish between RTTY/CW without even hearing it.  
Once tuned in, the interface allows you to copy any shift (170, 425, 850 Hz and all shifts between and beyond) and any speed (5 to 100 WPM on RTTY/CW and up to 300 baud on ASCII).  
Copies on both mark and space, not mark only or space only. If either the mark or space is lost the MFJ-1224 maintains copy on the remaining tone. This greatly improves copy under adverse conditions.  
A sharp 8 pole active filter for 170 Hz shift and CW allows good copy under crowded, fading and weak signal conditions. Uses FET input op-amps.  
An automatic noise limiter helps suppress static

crashes for better copy.  
A Normal/Reverse switch eliminates retuning while stepping thru various RTTY speeds and shifts.  
The demodulator will even maintain copy on a slightly drifting signal.  
A +250 VDC loop output is available to drive your RTTY machine. Has convenient speaker output jack.  
Phase continuous AFSK transmitter tones are generated by a clean, stable Exar 2206 function generator. Standard space tones of 2125 Hz and mark tones of 2295 and 2975 Hz are generated. A set of microphone lines is provided for AFSK out, AFSK ground, PTT out and PTT ground.  
FSK keying is provided for transceivers with FSK.  
High voltage grid block and direct outputs are provided for CW keying of your transmitter. A CW transmit LED provides visual indication of CW transmission. There is also an external hand key or electronic keyer input jack.  
In addition to the Kantronics compatible socket, an exclusive general purpose socket allows interfacing to nearly any personal computer with most appropriate software. The following TTL compatible lines are available: RTTY demod out, CW demod out, CW-ID input, +5 VDC, ground. All signal lines are buffered and can be inverted using an internal DIP switch.  
For example, you can use Galfo software with Apple computers, or RAK software with VIC-20's. Some computers with some software may require some external components.  
DC voltages are IC regulated to provide stable

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Aluminum cabinet. Brushed aluminum front panel. 8x1 1/4x6 inches. Uses 12-15 VDC or 110 VAC with optional adapter, MFJ-1312, \$9.95.

### RTTY/ASCII/CW Receive Only SWL Computer Interface



**\$ 69<sup>95</sup>**  
MFJ-1225

Use your personal computer to receive commercial, military and amateur RTTY/ASCII/CW traffic.  
The MFJ-1225 automatically copies all shifts (850, 425, 170 Hz shift and all others) and all speeds.  
It plugs between your receiver and VIC-20, Apple, TRS-80C, Atari, TI-99, Commodore 64 and most other personal computers.  
It uses Kantronics software which features CW receive 5-99 WPM, RTTY receive 60, 67, 75, 100 WPM, and ASCII receive 110, 300 baud, plus more.  
An automatic noise limiter helps suppress static crashes for better copy, while a simple 2 LED tuning indicator system makes tuning fast, easy and positive.  
In addition to the Kantronics compatible socket, a general purpose socket provides RTTY out, RTTY inverted out, CW out, CW inverted out, ground and +5VDC for interfacing to nearly any personal computer with most appropriate software.  
Audio in, speaker out jacks. 4 1/2 x 1 1/4 x 1/4 in. 12-15 VDC or 110 VAC with adapter, MFJ-1312, \$9.95.

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This month, let's take a look at the awards program offered by the South African Radio League (SARL). Unless otherwise indicated, all applications should be sent to the SARL, P.O. Box 3911, Cape Town, SOUTH AFRICA.

**All Africa Award (AAA)**

The AAA is available to all licensed amateurs and SWLs who can submit confirmation of at least 34 of the following: D2, ST, 9Q5, 9X5, 60, TJ, SU, ET2, ET3, TL, TN, TR, TT, CN, FL8, TU, TY, XT, 5T5, 6W8, 5U7, 3X, ZD3, 9G1, 5Z4, EL, 5A, C9, 5N2, 9J2, 7Q7, CR3, 9L1. **THE FOLLOWING MUST BE INCLUDED IN YOUR APPLICATION:** A2, ZD5, 7P8, ZS1, ZS2, ZS3, ZS4, ZS5, ZS6.

Only land stations are creditable, and islands surrounding the mainland are not acceptable.

A complete log extract, including mode of operation, should be submitted along with GCR certification or your QSLs. SSB reports should be no less than 3/3 and CW should be no less than 3/3/8. The certificate is issued without charge to SARL members, and for non-members a fee of \$3 should accompany your application.

**Top Band Certificate**

This award is issued to stateside licensed amateurs who can submit proof of contacting one of the six ZS divisions using 160 meters. Your award will be endorsed for mode if requested. Send your log extract (GCR), along with \$3, to the SARL.

**Southwest Africa Award**

This is issued to licensed amateurs for confirmed contact with at least 15 ZS3 stations. Send your log extract (GCR), along with \$3, to the SARL.

**Worked South Coast Branch Award**

Issued to licensed amateurs and SWLs for confirmed contact with at least five SARL members. Send your log extract (GCR) to P.O. Box 96, Port Shepstone, 4240 Natal, SOUTH AFRICA. There is no charge for this award.

**Port Elizabeth Branch Award**

Issued for confirmed contact with at least 10 Port Elizabeth amateurs. Send your log extract (GCR), along with \$2, to SARL. Mode and band endorsements upon request.

**Worked All ZS Call Areas**

Issued for confirmed contact with 100 different ZS stations representing all six ZS call areas, as follows: ZS1=16 contacts, ZS2=10, ZS3=3, ZS4=10, ZS5=16 and ZS6=45 contacts for a total of 100. Band and mode endorsements are available upon request. Minimum reports of 3/3 on SSB and 3/3/8 on CW are required. The award is free to SARL members. Send your log extract (GCR), along with \$3, to SARL. Only contacts made after 01 January 1958 are considered valid.

**Pietermaritzburg Branch Award**

Issued for confirmed contact with at

least 12 members of the Pietermaritzburg Branch of the SARL. Send your log extract (GCR) along with \$2 to the branch secretary at P.O. Box 382, Pietermaritzburg, SOUTH AFRICA. Only contacts after 01 January 1965 are valid.

**Pietermaritzburg DX Award**

Issued for confirmed contact with six different stations located in this branch. The same rules apply as above.

**Southern Transvaal Branch Award**

Issued for confirmed contact with at least five members of the Southern

Transvaal branch of the SARL. To apply, send your log extract (GCR) along with \$2 to P.O. Box 959, Vanderbijlpark, SOUTH AFRICA.

**East Rand Branch**

Issued for confirmed contact with at least four SARL members of this branch. To apply, send your log extract (GCR) along with \$2 to P.O. Box 4031, Brenca, Brakpan, Tvl, SOUTH AFRICA.

**Golden City Award**

Issued for confirmed contact with at least 15 stations located in Johan-

nesburg. Only contacts after 30 May 1960 are valid. To apply, send your log extract (GCR) along with \$2 to P.O. Box 2327, Johannesburg, SOUTH AFRICA.

**Pretoria Branch Award**

Issued for confirmed contact with at least five different ZS6 stations from this branch. Send your log extract (GCR) along with \$2 to P.O. Box 1259, Pretoria, SOUTH AFRICA.

Well, that's all for this month. Best 73, Scott

## TOKYO HY-POWER AMPLIFIERS

<p style="text-align: center;"><b>HL-30V</b> <b>59<sup>00</sup></b> <small>List \$69.95</small></p> <p style="text-align: center;"><small>IN: 150mw to 4W Out: 1 to 30W</small></p> <p style="font-size: 8px;"><small>Compact. Light. 2-meter FM Amplifier covers 144-148 mhz. Reverse polarity protection. Draws approx. 4A max. Excellent for handheld radios. Best power for cost on market today.</small></p>	<p style="text-align: center;"><b>HL-82V</b> <small>List \$159.00</small> <b>135<sup>00</sup></b></p> <p style="text-align: center;"><small>In: 3 to 15W Out: 30 to 80W</small></p> <p style="font-size: 8px;"><small>Compact 2-meter amplifier covers 144-148 mhz. FM/SSB/CW. Has accurate watt meter, hi/low power output. MOSFET receive preamp. Draws 13A max. Comes with mobile bracket, connector cable.</small></p>	<p style="text-align: center;"><b>HL-160V</b> <small>Lo In 1-5W Hi In 10-15W Out: 80-160W</small> <b>285<sup>00</sup></b> <small>List \$359.00</small></p> <p style="font-size: 8px;"><small>Truly the "Boss Hawg" on the amplifier market. Covers 144-148 Mhz. CW/SSB/FM. Dual level input gives capability of full drive with H/T or with 10-15 watt mobile radio. JFET preamp. Lo Hi output, accurate watt-meter. Comes with connector cables. Max. current draw 12-23A.</small></p>	<p style="text-align: center;"><b>HL-160V/25</b> <b>265<sup>00</sup></b> <small>List \$299.95</small></p> <p style="font-size: 8px;"><small>Similar in Design with same output specifications, except input drive will be 25-30w for the higher powered mobile radios</small></p>
<p style="text-align: center;"><b>HL-20U</b> <b>105<sup>00</sup></b></p> <p style="text-align: center;"><small>In: 1-3W Out: 15-20W</small></p> <p style="font-size: 8px;"><small>Compact, lightweight amplifier for the 70 cm band. Covers 440-450 mhz. FM/SSB/CW operation. Hi/lo output power switch. Mobile bracket. Reverse polarity protection. Draws 4A max.</small></p>	<p style="text-align: center;"><b>HL-90U</b> <b>289<sup>00</sup></b> <small>List \$359.95</small></p> <p style="font-size: 8px;"><small>Power for 70 cm. Covers 430-440 mhz with 80-90 watts FM/SSB/CW. Has Hi/Lo output switch, accurate wattmeter. Low Noise GaAsFET preamp on Rx. Reverse polarity protection. Draws 5-17A max.</small></p>		

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<p style="text-align: center;"><b>SP-15M</b></p> <p style="text-align: center;"><small>List \$69.95</small> <b>59<sup>00</sup></b></p> <p style="font-size: 8px;"><small>SWR/Power Handles up to 200 watts. Three power scales. Covers 1.8 mhz thru 150mhz. Our most popular model for HF Bands thru 2-meters. Accuracy +/- 10%</small></p>	<p style="text-align: center;"><b>SP-10X</b></p> <p style="text-align: center;"><small>List \$37.00</small> <b>35<sup>00</sup></b></p> <p style="font-size: 8px;"><small>Pocket-sized convenient for carrying with you. Handles to 200 watts. Covers 1.8 thru 150 mhz (HF thru 2-meters). Ideal for checking mobile. Accuracy +/- 15%</small></p>	<p style="text-align: center;"><b>SP-45M</b></p> <p style="text-align: center;"><small>List \$85.00</small> <b>79<sup>00</sup></b></p> <p style="font-size: 8px;"><small>SWR/Power Handles up to 100 watts. Three power scales. Covers 140 mhz thru 470 mhz. Excellent low priced unit for UHF/VHF work. Accuracy +/- 10%</small></p>	<p style="text-align: center;"><b>SP-600</b></p> <p style="text-align: center;"><small>List \$159.00</small> <b>145<sup>00</sup></b></p> <p style="font-size: 8px;"><small>SWR/Power Handles up to 2 KW (Peak) on HF Bands. 200 watts VHF/UHF. Covers 1.6 mhz thru 520 mhz. Built-in sensors switch 3 diff transceivers for instant reading. 3 Power ranges. Accuracy +/- 10%</small></p>
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TP-05X - 50 - 500 mHz. 5-watt H/T Power Checker w/BNC).....	18.00
TP-25A - 50 - 500 mHz. 25-watt Power Checker w/PL259.....	36.00
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# The ART of Contesting

## An art or a sport?

Yuri Blanarovich, VE3BMV

I have always felt it is the second one — SPORT! Actually, it is considered a sport in Eastern European countries — perhaps technical sport.

As ex-OK3BU, I happened to hold the title of "Master of Sport" for my results in contesting. I think it really belongs in the same bag with car racing, parachuting, skydiving, airplane flying (acrobatic, gliders, etc.), or even skiing or skating. In all cases, man is using "gadgets" or "tools" to demonstrate how he can master them, and in competition with others, compare results of his effort, training and work he put into it. This goes back as far as recorded history.

It was, and is, the desire of the human race to grow, get better, and to explore the new frontiers. Thanks to those who did not want to be cavemen forever, we are where we are.

In August of this year, I happened to celebrate the silver anniversary of my interesting marriage to the radio and contesting, because the contest bug bit me right from the start. I am sure this is the story with many others.

I would like to present feelings of contestant(s) about contesting, and shed some light on the mysterious force that makes the contestant "tick." I hope this will make fellow hams who are non-contesters understand, and perhaps even enjoy — or join — the racket on contest weekends.

I was quite surprised with Yardley Beers, W0JF's comments on contesting and DXCC in the July issue (page 28). Sounds to me like a bystander is trying to tell all those "nuts" — athletes at the Olympics — to stop running in circles, jumping, throwing things and get "organized"; march like an army, sing songs and "enjoy" it. Without getting too deeply into the argument, I think W0JF is missing the boat completely and trying to "fix" something that is perhaps not ideal (what is?), but which is fine. More and more amateurs are joining the contesters' ranks and finding more satisfaction and challenge than "working" DXCC countries on the lists and nets.

Contests, games and sports have their disciplines and rules. When people like those things, they join in and the activity is a hit. If it stinks, they will try it and won't bother with it anymore. If contests were based on the triviality of exchanging the 599, I don't think they would be what they are. Please don't try to change the rules in contests until you really taste contesting and make it a few times to the top ten or six in the world — or at least statewide.

My feeling is that contesters do not get sufficient or appropriate publicity. This may cause those who have never tried it to criticize contesting and try to "fix" it.

I hope to demystify contesting for some of the non-contesting types and present it through the eyes of a contestant, explaining the "side effects." I would welcome any questions and comments on the subject.

As to the four points that W0JF rose in July issue, I cannot see a better answer to those points than in the person of the contestant. I think the contestant fulfills all four requirements better than any other "brand" of ham.

1) Communications in emergencies — Contesters are the best operators, and when they get involved in emergency situations, they do a better job running 5 watts (Ron Moorefield, W8ILC, for example) than most ragchewing types with their kilowatts. I have heard some stations in distress virtually QRM'ed to death by the "casual" ham.

2) Training in operating radio stations — What better training can one get than in 48 hours of contest fire — QRM, speed, propagation, equipment, etc.? The best and fastest training of top-notch operators goes on at multi-multi stations and clubs.

3) Acquire and disseminate knowledge

on technology and radio-wave propagation — Successful contesters *must be* on top of technology and propagation. Without that knowledge, he would not be able to work those thousands of 599's. He would not be able to hear them and work them. Contesting is the force that pushes one to the limits, to get better antennas, to understand propagation, to make equipment better and to improve one's operating skills.

The DX'er is fine with a TH6 at 50 feet, and actually, 90 percent of "Honor Rollers" are just that! If the DX'er waits another half hour, he will get that rare one. A contestant cannot afford that. A ragchewer usually does not care about

that big stuff; all he wants is to talk to his buddy when "things" are right.

Actually, one of the few areas that are still offering room for experimenting and development are antennas and propagation. Most work there has been done by contesters.

4) Better understanding between peoples of the world — I think contesters belong right at the top, along with athletes and sportsmen. I think the best display of that is in the hospitality suites at hamventions, where DX'ers and contesters from all over the world are staying up till morning, talking and exchanging ideas and forging international good will.

One great personality that has contributed to Amateur Radio a great deal is a dear friend — the late Jim Lawson, W2PV. It is a shame no one has written about his work and contribution to radio communications after he passed away. I would like to fill this void, collect the facts, and present them for publication. Most contesters are modest people and many excellent works do not get publicized or appreciated.

In trying to correct W0JF's opinion about the trivial exchange, it is not just exchange that matters; it is how many different ones you can work that others can't, how fast you work them, how good your equipment is, how well you know the propagation, how many languages you can speak, how good your CW is, how long you can stay up without sleep, how much better your antenna is than some commercial stuff, how good your hearing and ability to pick the call out of the mess and how much you love it.

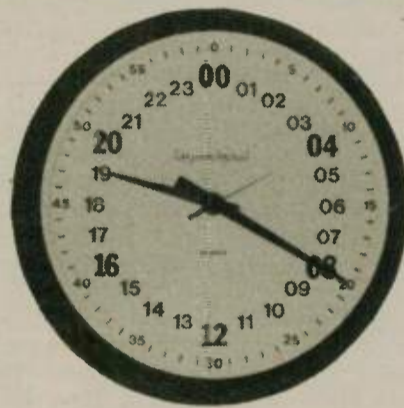
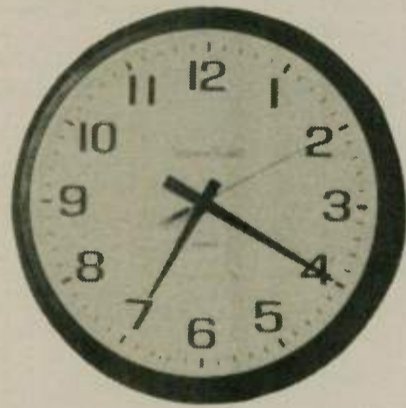
Believe me, the best ham friends I have ever known are contesters, because they are unselfish, curious people, striving for excellence, and they don't give up easily. The only "dangerous" point is when one reaches the top and it appears there is no room to grow. But there is an army of others who are trying to reach the same top, and it is harder to defend it if you don't keep up with all the stuff involved in doing it.

So, if you cannot join or beat that marathon runner at the Olympic games, give him a hand. Encourage him and appreciate his effort, because he works harder than any other mortal being. Don't tell him to give it up, and don't tell him to run backwards. Admire him, if you can, and give him a joint-exchange 599, and we will all feel good.

At the time, there are — perhaps — too many contests. Some are big, some are hardly noticeable. I think the trend is to concentrate on biggies such as ARRL DX, CQ WPX, CQ WW. Others are losing popularity and perhaps will go away. It is only a hobby; we have other things to do, so we concentrate more on "biggies." Those who are just starting usually start small and "fuel" the smaller contests. As they grow and get more competitive, they start appearing higher and higher in the listings, and champions are born.

I hope we all can live in peace and understanding, and work on bettering and improving our skills, and show our friends coming from CB ranks that Amateur Radio is more than just talking about nothing with compressors full tilt.

The CQ World Wide DX Contest is the last full weekend of October (Phone) and November (CW); it is the Olympic Game of Amateur Radio. Contesters will go all out trying to smash that record. DX'ers will try to nail another new one. Ragchewers will curse all of them. Others will be "spectators," listening, observing, and making an occasional call. Hope to work you all! I'll take even 33 for the report — hi!



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### Trick or treat

In its newsletter, *Amateur Radio News*, Mount Pleasant, Iowa ARC reported a successful "first" last Halloween.

### Spook Patrol

The Fairfield ARC's first attempt of Operation Child Watch on Halloween night was a major success.

Organized by Jim Love, N0CBB, with cooperation of police chief Frank Johnson, the city was divided into four sections with one or two cars in each area, one amateur on foot, and one acting as net control at the Fairfield Law Center. The amateurs were to observe the activities of those on the streets and report on vandalism or anything that could lead to harm to the trick-or-treaters.

The amateurs (from Fairfield and nearby Mt. Pleasant) who participated besides N0CBB were Dave Luckman, K0HYH; Lowell Knapp, K0LK; Dick Ward, KA0NSW; Roy Lewis, WA0KLD; Jack Ritz, WA0YOC; Dave Schneider, WD0ENR; Dick Jewell, K0IQV; Jack Wright, AD0E; Curt Hanson, KA0NZH; with Gib Whitten, WB0BGV, standing by at home.

### Philosophy

In *The Atlanta Ham*, the newsletter of the Atlanta Radio Club, Inc., Atlanta, Georgia, President Jack Bolton, WA4PNY, philosophizes.

"Every once in a while, I stop to think of the happenings of the Atlanta Radio Club. It makes me proud to be associated. "Right now we have four training

classes running — two on Saturday and two on Monday, spreading the word. Then there is the Loop Skywire special. Two of the four promised seminars on antennas have been accomplished at the Atlanta Garden Center; two more are to come as per David W4MHS.

"Then, too, a number of our members are taking advantage of the Fox Hunts, a worthy endeavor that for fun gives those who do participate the chance to do some real live DFing.

"A healthy number of our members is taking part in the various public service activities that have occurred in our area. Recently, in cooperation with MALARC, a number of the club's members became the communication arm of the Special Olympics. That probably had a total of 600-700 kids from all over Georgia.

"Many of our members are really giving of themselves when the emergencies arise, taking part in ARES by working shifts at locations that include the Atlanta Weather Bureau, Civil Defense, American Red Cross, not to forget the number that work the nets and such.

"Too, I can't forget to mention those who continue to keep our repeater on the air, the club station in operational shape, and the *Ham* coming with amazing regularity. (As we speak, the editor is breathing heavily over my shoulder.)

"I would be remiss if I didn't mention those who, in increasing numbers, are giving more and more to make the 1983 Atlanta Ham Festival, 18-19 June, the best we have ever had.

"At the next club meeting, or on the air or at an eyeball QSO, take a moment to thank those who make it all possible!"

### Guest speakers

Hooray! Ole Virginia Hams ARC, Inc., Manassas, Virginia, has empathy for its guest speakers. In its newsletter, they tell us:

All of you who attended the March meeting noticed a change in the meeting format. The most obvious, of course, was that the guest speaker was put on first, prior to our business meeting. I have felt for a long time that we are doing an in-

# VISIT YOUR LOCAL RADIO CLUB.

## ALASKA

**Arctic Amateur Radio Club**  
Geophysical Institute West Ridge U of A  
PO Box 81389  
College, AK 99708  
1st Friday/monthly - 7:30 p.m.

**Borealis Amateur Radio Club**  
Mission Road  
P.O. Box 0  
North Pole, AK 99705

## ARIZONA

**Tucson Repeater Association**  
P.O. Box 40371, Tucson, AZ 85719  
2nd Sat/monthly — 7:30 p.m., Pima Co. Bldg.  
Net Thurs 7:30 p.m. 146.22/82 (146.28/88 & 147.69/09)  
(602) 747-8903 or 899-4776

## CALIFORNIA

**Amador County Amateur Radio Club**  
PO Box 598, Pioneer, CA 95666  
Pioneer Elementary School, Pioneer, CA 95666  
1st Thursday/monthly - 7:30 p.m.  
Talk-in 146.235/146.835

**Antelope Valley Amateur Radio Club, K6OX**  
Lancaster School Board  
44711 N. Cedar Ave., Lancaster, CA 93534  
4th Wed/monthly-7:00 p.m.

**Conejo Valley Amateur Radio Club**  
Home Federal Savings and Loan  
454 W. Hillcrest Drive  
Thousand Oaks, CA  
1st Thursday/monthly — 8:00 p.m.

**Contra Costa Communications Club WD6EZR**  
Box 661, San Pablo, CA 94806  
Meet 2nd Sun. at 9:00 a.m.  
Hickory Post Restaurant/Lucky Lanes  
Info call Carl KA6OLK (415) 237-2621

**East Bay Amateur Radio Club**  
P.O. Box 6017, Albany CA 94706  
Salvation Army Bldg., 36th & Rheem,  
Richmond (415) 525-6200  
2nd Friday/monthly — 7:30 p.m.

**Gabilan Amateur Radio Club**  
Monterey Savings & Loan Public Room  
Corner First & Westwood  
Gilroy, CA 95020  
2nd Thursday/monthly - 7:30 p.m.

**MT. Wilson Repeater Association**  
P.O. Box 977  
Yorba Linda, CA 92686  
WA6KOS Repeater — input 146.40 output 147.435  
Amateur Radio QST Net — Monday at 7:00 p.m.

**North Hills Radio Club**  
P.O. Box 41635, Sacramento, CA 95841  
Meets: Gethsemane Lutheran Church  
4706 Arden Way, Carmichael, CA 95608  
3rd Tuesday/monthly

**Sacramento Amateur Radio Club, Inc.**  
Contact: Chet Almond, N6DRU, (916) 967-4295  
Meets: MARS Building, Sacramento Army Depot  
Troop gate, Florin-Perkins Road  
2nd Wednesday/monthly - 7:30 p.m.

**San Fernando Valley ARC (W6SD)**  
Red Cross Building  
14717 Sherman Way  
Van Nuys, CA 91704  
3rd Friday/monthly - 7:30 p.m.

**San Gabriel Valley ARC**  
Bowling Green Clubhouse  
405 S. Santa Anita Avenue  
Arcadia, CA 91006  
1st Tuesday/monthly - 7:30 p.m.

**S. Counties Amateur Teleprinter Society (SCATS)**  
2nd Sat/monthly — alternates in L.A. & Orange Counties.  
60 WPM RTTY Net, Wed. 8 p.m. on 146.10/70 W6IWO/RPT  
For info. call Jean Carter, KA6HJK, (714) 523-9519

**Sierra Foothills ARC**  
PO Box 3262, Auburn, CA 95604  
Office of Education Bldg.  
360 Nevada St., Auburn CA 95603  
2nd Friday/monthly — 1930

**Six Meter Club of Chicago, Inc.**  
Land of Lincoln Savings  
6655 W. Cermak Rd.  
Berwyn, IL 60402  
2nd Friday/monthly — 8:00 p.m.

**Sonoma County Radio Amateurs, Inc.**  
P.O. Box 91 • Fremont, CA 94536  
Hank Davis, W6DTV (707) 823-7885  
County Office of Emergency Service  
1st Wednesday/monthly - 7:30 p.m. rpt 146.13/73

**South Bay Amateur Association**  
P.O. Box 91 • Fremont, CA 94536  
Fremont School, 40230 Laiolo Rd  
3rd Wednesday — 7:30 p.m.

**Stanislaus Amateur Radio Assoc. (SARA)**  
P.O. Box 4601 Modesto, CA 95352  
Stanislaus Co. Administration Bldg.  
12th & H Streets • 3rd Thurs./monthly 7:30 p.m.  
145.39 MHz WD6EJF

**Stockton Amateur Radio Club**  
U. of Pacific, Rm. 122  
Kensington & Mendocino Sts.  
2nd Wednesday/monthly - 7:30 p.m.  
Rptr. roll call: Wed. 8 p.m. - 147.165/765

**Tri-County Amateur Radio Association**  
Pomona First Federal Savings and Loan  
399 N. Garey Ave., Pomona  
Talk-in 146.625/025 For info. call (714) 985-8184  
2nd Monday/monthly - 7:30 p.m.

**Valley of The Moon Amateur Radio Club**  
358 Patten St., Sonoma, CA 95476  
Darrel Jones, WD6BOR (707) 938-8086 For Info.  
Meets: odd months, 2nd Tuesday, 7:30 p.m., Sonoma  
Police Dept.; even mo., 2nd Sun., 11 a.m., bkfst.

**West Coast Amateur Radio Club**  
Fun Meetings — No Business  
Fountain Valley Recreation Center  
Visitors welcome — call in 144.330 simplex  
Call KA6RRR (714) 636-8661 for dates

## CONNECTICUT

**Tri-City ARC, Inc.**  
P.O. Box 686, Groton, CT 06340  
Meets: Groton Public Library  
Rt. 117, Groton, CT  
2nd Tuesday/monthly - 7:30 p.m.

## FLORIDA

**Fort Myers Amateur Radio Club, Inc. W4LX**  
Jeff Beals, WB2OUK, President, (813) 334-4004  
Meets 1st Wednesday/monthly-7:30 p.m.  
First Federal Savings and Loan of Ft. Myers  
121 Pondella Rd., North Fort Myers, FL

**Platinum Coast Amateur Radio Society, Inc.**  
American Red Cross Building  
1150 S. Hickory • Melbourne, FL 32901  
Dan Yelverton WA4RGK President  
Call-in 25/85 Rptr. • Meets 2nd Mon/monthly 7:30 p.m.

## HAWAII

**Big Island Amateur Radio Club**  
Helco Auditorium  
1200 Kilauea Avenue, Hilo  
Call-in 146.28/88  
2nd Tuesday/monthly - 7:30 p.m.

## ILLINOIS

**Fox River Radio League**  
Valley National Bank, Lower Level  
Northgate Shopping Ctr. & RT. 31, Aurora, IL  
(312) 898-2779 for more information  
2nd Tuesday/monthly - 7:30 p.m.

**Radio Amateur Megacycle Society**  
Irvingwood Acacia Church  
3900 N. Plainfield, Chicago, IL 60634  
(312) 625-2879  
3rd Friday/monthly - 8:00 p.m.

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your first  
QSO?



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Golden Valley, Minnesota 55422 WA0QWE