Worldradio

Year 13, Issue 8 February 1984 • 85¢

Dr. Owen Garriott, W5LFL, operated a custom Motorola handi-talkie provided him compliments of the Ft. Lauderdale Motorola ARC, while aboard *Columbia*.

Six amateurs from Sacramento, California who participated in contacts with Dr. Owen Garriott, W5LFL, during *Columbia's* orbits of the Earth, are shown here. From left to right, they are: Jerry Bertacchi, NM6T; Cass Tressl, KX6Z; Bill Allport, WA6VTL; Hugh Nickless, WB6YKI; Ed Merritt, KF6EN; and Phyllis Bertacchi, N6JNF. *(See story on page 36.)*

FCC votes 'NO' on no-code

The FCC, on 14 December 1983, voted in the strongest possible manner to retain the Morse code requirements for all classes of Amateur Radio licenses.

Private Radio Bureau Chief Robert Foosaner said that the Amateur Radio Service is well, thriving, and providing an excellent service to the American public. He strongly recommended that the FCC maintain the code requirement, endorse the service as it is, and bury the concept of no code.

Chairman Mark Fowler stated that the code is very important, and in some cases, essential for getting the message through. He said further that radio amateurs have contributed vitally to the country and recently were stalwart in performing communications with Grenada. The vote was unanimous to reject the concept of no code. — *ARRL* □

W5LFL talks to the world

It was on Orbit 40 (Wednesday evening, 30 November) that W5LFL was first heard over the West Coast; CQ'ing from the shuttle *Columbia*. He was clearly heard at the Johnson Space Center (Texas), *over 1,000 miles away!* From that point on, happy amateurs around the world began eagerly trying to contact W5LFL as the shuttle raced overhead.

Some of the contacts Garriott made were with King Hussein, JY1; Barry Goldwater, K7UGA; the ARRL's W1AW headquarters station; and W5RRR at the Johnson Space Center. The JSC ARC put Owen's two sons, Richard and Robert, on Amateur Radio during one of his passes.

W5LFL also got an opportunity to contact W5HTK ("Hot Tea Kettle") — the Enid (Oklahoma) ARC station, where Owen and his father were introduced to Amateur Radio. Owen was a youngster at the time and both he and his Dad attended ham theory and code classes there. It had to be a thrill for both!

Garriott gives full credit to Amateur Radio for giving him a start in his electronics career. He has a Ph.D. in electrical engineering and has gone about as far as you can go in the field.

Radio amateurs who heard W5LFL (*please turn to page 14*)

Radio world mourns for Clark

Amateur Radio is saddened by the crushing news that ARRL President Victor C. Clark, W4KFC, is a Silent Key.

Vic complained of chest pains Friday morning, 25 November, and because of his history of an earlier heart attack, was taken to the emergency room of Commonwealth Doctors Hospital in Fairfax.

He was placed in the cardiac intensive care unit for observation, but at that point there was no suspicion of what was to come. At about 10:30 p.m., Vic was stricken with a massive heart attack. One minute he was joking with the doctors; the next minute he was gone.

Vic Clark brought to the post of ARRL President the personal qualities which had made him one of the most respected and best-known members of the worldwide Amateur Radio fraternity. Messages of condolence have been pouring in from all over the world: from all continents and some 20 countries in just the first few days. Countless organizations and individuals throughout the United States and Canada have echoed these sentiments, as well.

As chairman of the ARRL Long Range Planning Committee, Vic laid the groundwork for the ARRL of the 1980's and beyond — a revitalized organization with greater opportunities for grassroots participation which was just beginning to take shape when he was taken from us.

Victor C. Clark, W4KFC

As ARRL President, he took such a deep personal interest in the League's affairs that those of us who labor full-time on behalf of the organization were hard-pressed to keep up. Through it all, he was a devoted family man to his wife, Hester WA4PAE; to their six children: Ken K4OKZ; Andy WA4PRF; Roger; Beth Schang, KA4YTN; Miriam Hudgins and Jennifer Warner; and to seven grandchildren.

The Clark family advises that memorial contributions may be made to the ARRL Foundation, 225 Main St., Newington, CT 06111. A memorial fund is being established, the purpose of which will be designated later.

Under the ARRL Articles of Association and By-Laws, in the event of a (*please turn to page 35*)

DX convention

The International DX Convention will be held 13-15 April 1984 at the Holiday Inn in Visalia, California. The registration — which includes cocktail parties Friday and Saturday, banquet, Sunday breakfast, exhibits, programs and more — is $42.

Pre-registration (postmark by 15 March 1984) is $38, which will include a free traditional patch to the first 500. Checks should be made payable to "Westcoast DX Convention 1984" and sent to the treasurer Nick Winter, WB6DXU, 1426 N. Avon St., Burbank, CA 91505. Hotel rooms cost $40 single/$47 double and must be reserved in the name of the convention. *Do not* use the 800 number when calling for reservations; use (209) 651-5000.

Many well-known DXers are expected to attend, as well as many invited speakers, including 9N1OAT, 1AOKM, K7NW, XU1SS, HK0TU, TT8BC, 3B8CF, KL7RA, WA4ZNH and WN4FVU.

A ladies program will include a luncheon for an additional $5. In addition to the traditional contests, there will be an "original QSL card contest." □

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Telephone: (916) 457-3655

STAFF

Editor and Publisher — ARMOND NOBLE, N6WR
Managing Editor — CHRIS WILSON, KA6TAL
Associate Editor — NORM BROOKS, K6FO
Advertising Director — HELEN NOBLE
Graphics Director — DIANNE DUNNING
Circulation — SARA PILIOTIS

February 1984 Vol. 13, No. 8

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

Our goal is to be a valuable resource of ideas and experiences beneficial to the Amateur Radio community. We publicize and support the efforts of those who bring the flame of vitality into this avocation.

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.

We are positively-oriented. We print all the news of this great activity, and particularly desire an input of stories dealing with the dramatic, the personal and humanitarian uses of Amateur Radio.

Worldradio needs your help to reflect the invaluable service of Amateur Radio.

Through **Worldradio** you can make contact with other individuals who share your interests.

Worldradio is an independent newspaper. It is not affiliated with any other firm, group or organization. Its pages are open to all. Permission is hereby automatically granted to reprint from this publication. If there is something useful, we wish to share it.

Subscription rates: $10.00 per year, $19.00 for two years, $27.00 for three years and $100.00 for life; $2.00 extra per year for surface mail delivery outside the U.S. Please remit international postal money order. IRCs and local currency will be accepted.

Second-class postage paid at Sacramento, CA.

Radio station in Ottawa

The usefulness of Amateur Radio in emergencies has been given concrete recognition by the Canadian government by its establishment of an all-band, fully-equipped Amateur Radio station in Canada's capital. With the call VE3GOC for "Government of Canada," the station will give federal emergency authorities direct communication with any domestic or international site right from their operations room. Such disasters as the Italian and Guatemalan earthquakes and the Manitoba flood showed the value of amateur communications and the necessity of an official station to relieve the difficulties associated with operating from stations in private homes.

In an emergency, VE3GOC will be manned by amateurs from various government departments, which will eliminate these problems. The idea for such a station was recommended three or four years ago by a committee convened by the Canadian Amateur Radio Federation, and was brought into reality by the efforts of Emergency Planning Canada officials A.F. Wigglesworth, VE3YE, and Nick Evanoff, VE3BED.

In anticipation of expanding the official EPC station network, the call suffix "GOC" has been reserved in all districts except VE2 where VE2PUC — which stands for "Planification d' Urgence Canada," the French name for EPC — has been reserved. — Thanks to Frank Hartnett, KA8PUU.

—Dayton ARA, OH □

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If you are involved in any emergency communications incident, send story and photos to *Worldradio*, 2120-28th St., Sacramento, CA 95818.

Correction

Donald Peak, KA5PKO

Your article in the October 1983 issue entitled "Hurrican hits Texas" was very interesting to us here in Galveston. However, in view of the erroneous statements made in the article by W5YI, you should know that the Red Cross and the University of Texas, Medical Branch, stations were both operating during the course of Hurricane Alicia.

The statement that the University of Texas, Medical Branch, repeater became silent is incorrect because this repeater not only maintained its operation during the course of the storm, but was able to do so on emergency power. The same is true of the Red Cross station which was operated by myself and by John Otis, N5BCK, and others who volunteered to come in and operate during the course of the storm.

We appreciate the theme of the article, which gave credit to the amateurs throughout the area who did a wonderful service, and we only want to make that correction in view of our devoted operators who kept these stations on the air during the course of that storm. □

ATTN: Baltimore

The Maryland School for the Blind Amateur Radio Club is seeking volunteers to help teach Novice code and theory to students at the school. The club meets every Tuesday night. Over the years, a number of students have obtained licenses and several are still active.

If you could spend two hours a week helping a student, please contact Bob Martin, KC3FI, at 444-5000, ext. 275 or 444-2598; or Jack Bensel, WB3AIO, 444-5000, ext. 217 or 668-2559, for further information. □

Amateur needed

A retired person with a ham license is needed to help out in the radio room at the Wade Park VA hospital in Cleveland, Ohio, according to the Lake County Red Cross. Transportation is provided in and out from Painesville.

If you're interested, give Pat Osborne a call. Pat is the Volunteer Coordinator for the Red Cross, (216) 352-3171.

— Lake County ARA, OH □

ATTN: Houston, Texas

The Sam Houston Area Council, Boy Scouts of America, is starting a program in Amateur Radio for older boys. Several Explorer Posts specializing in Amateur Radio will be organized and advisors (adult leaders), sponsors and equipment are needed. The program will emphasize the traditional principles of Boy Scouting and will provide opportunities for outdoor activities along with development of knowledge and skills associated with Amateur Radio.

Please give serious consideration to becoming an advisor for one of these Posts. This is an excellent opportunity to teach our youth about the fascinating world of radio communications in an atmosphere which stresses the importance of traditional values. Working with our young people is a rewarding experience, and you are sure to receive much more than you give.

For further information, please contact Paul Hopkins, Sam Houston Area Council, Boy Scouts of America, (713) 659-8111. □

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Mission to Nicaragua

Peace Brigade uses Radio

Mary Duffield, WA6KFA

How ya gonna keep 'em down on the farm, after they've seen DX? Ask Mary Duffield, WA6KFA/YN8JAL, and Orion Renk, N7DFC/YN8APA, after two weeks of operating an Amateur Radio station in Jalapa, Nicaragua, in October 1983.

We two amateurs were members of a Peace Brigade International (PBI) team, 10 members on a mission to the Nicaraguan-Honduran border. PBI is a non-partisan, non-governmental organization trying to exemplify an unarmed, non-threatening presence on as many of the planet's exploding borders as possible. Gandhi originated this concept in 1922, and there are now 13 countries involved. We found this border a God-given paradise being laid waste by man-made mortars.

But Amateur Radio is the hero of this story. Let me pull you into the picture:

Getting our radio gear and TH3 Junior antenna past several war zone customs officials who were greedily eyeing it, was child's play compared to surviving with it on the 180-mile jeep jounce from Managua to Jalapa . . . six hours of solder-loosening jolts, fording streams where bridges were bombed almost daily, gambling there would be enough road for our return.

It took "gringo gold" to persuade three jeep drivers to risk the trip with us, and they promised to stay with us for three days, to help transport the medical and educational supplies and camping gear along the border. (By the way, each of us paid for our share of this $30,000 escapade, as PBI must stay clean of political contributors, etc.)

Our first night in Jalapa, Orion and John Perdikis assembled our 100-piece superb little antenna. Next morning, the three jeep drivers came running in with rumors of impending encirclement. They asked, understandably, to flee to Managua to rejoin their families — and we agreed, of course. This complicated our project, as we had an agreement with the Nicaraguan government to not try to protect us with weapons, precluding our hitching rides on military vehicles. Have you ever tried to back up a team of oxen, carrying an awkward load around a narrow corner?

We discovered there were but two telephones available to us there, which operated only in spasms, and one had to wait in line for eight hours or so. Thus, getting the radio going for emergency and family communications was priority number one.

Up the roof we climbed, our white clothing in uncomfortable contrast with the orange tiles. How would the sharpshooters, often ensconced atop the hills rimming Honduras, view this domestic little scene? Would they assume the gangly antenna was a parrot perch? (The parrots did.) Orion invented an anti-gravity technique, vaulting the glistening metal sculpture up 20 impossible feet.

All the while, I was holding guy wires, my imagination melodramatized: What if the "bad guys" (anybody on the "other" side) suddenly silhouette against the sky, take a bead on us? Later we learned that there were Jalapan militia manning trenches dug in volcanic orange trenches all along those hills so we were not as vulnerable as we felt. Just as I was contemplating falling off the steep roof as a lesser risk, Orion and John burst into a new ditty: "We lost our jalopies in Jalapa" . . . the first of many times their zany comics lifted our spirits above our ankles.

My ICOM 701, survivor of countless saltwater trips and countless kids' manhandling, soared above the RF obstacle course of tropical moisture, etc. Our first message was to our homefolks in California and Canada, assuring them: "We're here; there are rumors flying, but if we keep our 5:00 p.m. sked, the rumors will have been belied."

Whew, we kept our sked. The next climax came when the daily squall dumped rain buckets through the roof we riddled while putting up the "parrot perch". Good old John volunteered to repair it. He did, so the leaks were now directed to fall on us instead of the fungus-sprouting radio.

By this time, you are asking how did we ever get permission to operate in such a place? Well, my fat phone bill tells how — with calls to the ARRL Reciprocal Licensing Department, to Managua, etc. The Nicaraguan government responded to PBI's team offer, urging us to come quickly. (We're still waiting for a similar invitation from Honduras, and will assemble on that side of the border, if requested.)

Since a coalition of most religious groups sponsored us, accepting our non-political posture, the Nicaraguan Ministry of Communications issued us our exotic licenses.

So long as we stayed on the Nicaraguan side of the border we were legal . . . and, of course, as long as we abided by the written and unwritten rules of Amateur Radio.

Amateur Radio became our lifeline, our recreation and our ticket into the hearts of the villagers. There was abundant illegal use of the ham bands by Central American military agencies, so we feared that our equipment would motivate our being raided. But the risk was justified as we shared our QSO's with this mountain-bound community.

Did we use 2 meters? Correcto! Orion's Santec and my Kenwood kept us in touch as we fanned out, helping people wherever we could: picking coffee, planting a peace garden, staging vigils, collecting objective information for UNESCO, teaching English.

Only once, Orion discovered his battery wasn't charged and he left to pick up a message in a remote section of town. It was 10:00 p.m. and we were reluctant to have him go alone, but the tracer bullet fireworks and the rifle ratatatat up in the hills had diminished since our arrival, so he left.

Mary Duffield, WA6KFA/YN8JAL, and Fred Woodard stand vigil for non-violence opposite the Nicaraguan militia station in Teotecacinte — hot spot hemmed in on three sides by Honduras. ***(PBI photo)***

Orion Renk, YN8APA/N7DFC, explains why we can't leave our Amateur Radio system with any government agency. They accept our explanation and graciously wish us Godspeed home. The distant rim of hills harbor enemy sharpshooters uncomfortably close. ***(PBI photo)***

Enthralled Jalapa students "discover" 2-meter ham radio from Mary Duffield, WA6KFA. ***(PBI photo)***

At about 10:30, we heard a heart-stopping flurry of shots, sounding about three blocks away. Since Orion happens to be one of the most valuable, highly-evolved humans we've encountered, you cannot half imagine, gentle reader, our relief as Orion strode in at 10:40, singing one of his exotic verses to "Old MacDonald had a cooperativo." It seems one of the local militia (15 years and older) had been showing off his sharpshooting, aiming at the stars in a burst of wine-induced bravado.

We spent much of each day in the refugee-swollen school, which ran three full shifts, from 7:00 a.m. to 11:00 p.m. (often sans lights). The kids begged us to teach them not only English and math, but "El Codigo" (CW). We played cassette tapes to them made by our world-wide network of kids wanting to be friends everywhere.

The Jalapa kids made a tape, excitingly visualizing a future of peace, hoping they could help co-create that peace by instant cooperative communication among the youth of the globe.

The time came for us to leave this heaven-hell. California, here we come. Hello, flush toilets, hot showers, freedom from fear! But how could we leave so many, so many, many behind?

The school kids lined up and sang us a farewell. We dissembled the radio station, forever grateful to you hundreds of fellow hams who have cooperated with our health and welfare traffic, phone patches, abrupt breakdowns, etc. (Especially that exhausting night you gave me the sound of my son's voice in California sounding soothingly in my ear in Jalapa.) All of you who have been promised the enchanting little drawing John made, please be patient. We'll send them out as soon as possible.

As we packed up our radio gear, the rifle-totin' farmers (our fond new friends) stood there begging for us to leave them this precious stuff (as we had left them many medical supplies, educational supplies, etc.). We had to explain again and again that Peace Brigadiers cannot contribute to the violence on either side of any conflict by even a gift of communications equipment; that Amateur Radio will eventually help them more in the long run if it is used "for the enhancement of international good will."

We promised them that as soon as the village priest, Senor Lucinio, acquired his license, and as soon as conditions permitted, we would send the school an Amateur Radio station.

It would, of course, be so simple — so easy — for these ill-equipped, back-to-the-wall soldiers to just level their guns at us and take our treasures. But they know, as impartial journalists have repeatedly told them, that the presence of unarmed, international teams of observers on their border diminishes the attacks upon their families and farms.

We promised them the next team would arrive in a few days. We shared hopes with them that someday all the tortured boundaries dividing humankind will be so crowded with unarmed "peaceniks" that armies will go out of style.

The soldiers waved us a fond farewell. We tucked our radios high in the jeeps, to ford all those rivers, folded up our DX licenses in watertight envelopes, and headed for home. □

Nominations open for Dayton awards

Is it one of those dull gloomy days when even the birds are walking, and it's not a fit day to go out and put up that new sloper or inverted Vee antenna you wanted to try? DX isn't coming through yet because the MUF isn't right; some jerk squirrel keeps kerchunking the repeater or playing tunes on the Touch-tone® so that 2 meters isn't fun. Maybe the wind played havoc with your beam last night, and now it looks like a limp pretzel or some modern art object; or maybe your rig blew up in the middle of a QSO or just before that sked with a rare station in some far-off land.

Any fool knows all these things aren't going to happen to you at once. But if it is 'one of those days', maybe you can just forget the whole mess and brighten your and someone else's day a little by taking some time to think of a fellow ham you admire and respect to nominate for Dayton's "Amateur of the Year Award" for 1984.

What is the stature of this individual we seek for recognition each year at Dayton?

First, he or she will be a well-respected person in the community; a leader, not only in Amateur Radio activity, but in civic activity as well. He will probably be licensed for at least 10 years or more, for it is long-term overall excellence in Amateur Radio that we are looking for.

His contribution to Amateur Radio may be in any of the hobby related areas. Possibly his greatest contribution is in the engineering field of our hobby, or his expertise may be in antenna design, some new type of modulation or an improvement to existing design, etc. Maybe he has contributed greatly to improvement of amateur regulations or possibly his contribution is in the legal field of our hobby — a very important one these days. Get the idea? In short, an outstanding individual and amateur.

In 1974, another award was established — the "Special Achievement Award." This award is just what it would seem to be — an award for a one-time special event or specialized activity by an amateur or group of amateurs. This activity may be in the engineering field, QRP, DXpeditions, net activity, emergency work or any one-time outstanding activity related to the Amateur Radio hobby.

Nominees for both of these awards may be from anywhere in the world, not just the USA. So don't just sit back and say, "Gee! Somebody ought to nominate that guy for "Amateur of the Year." Don't wait for George to do it. Give us all the details you can gather, especially activities that are directly attributable to him or her.

All nominations are carefully reviewed and are saved from one year to the next for future consideration, and to allow some nominees to develop to their full potential. All nominations are considered for both awards, and the awards will be presented at the 1984 HAMVENTION banquet.

Have you nominated someone in the past? You may want to renominate him with an update on recent activities, or just send in update information on his latest accomplishments.

Do it now! You may win a a set of free tickets to the "HAMVENTION" for your nominee and yourself.

For more information or nomination blanks (not mandatory), write to: HAMVENTION, P.O. Box 44, Dayton, OH 45401, ATTN: Awards Committee; or Bob Roettele, W8UNV, Awards Chairman, 1299 Hanes Rd., Xenia, OH 45385.

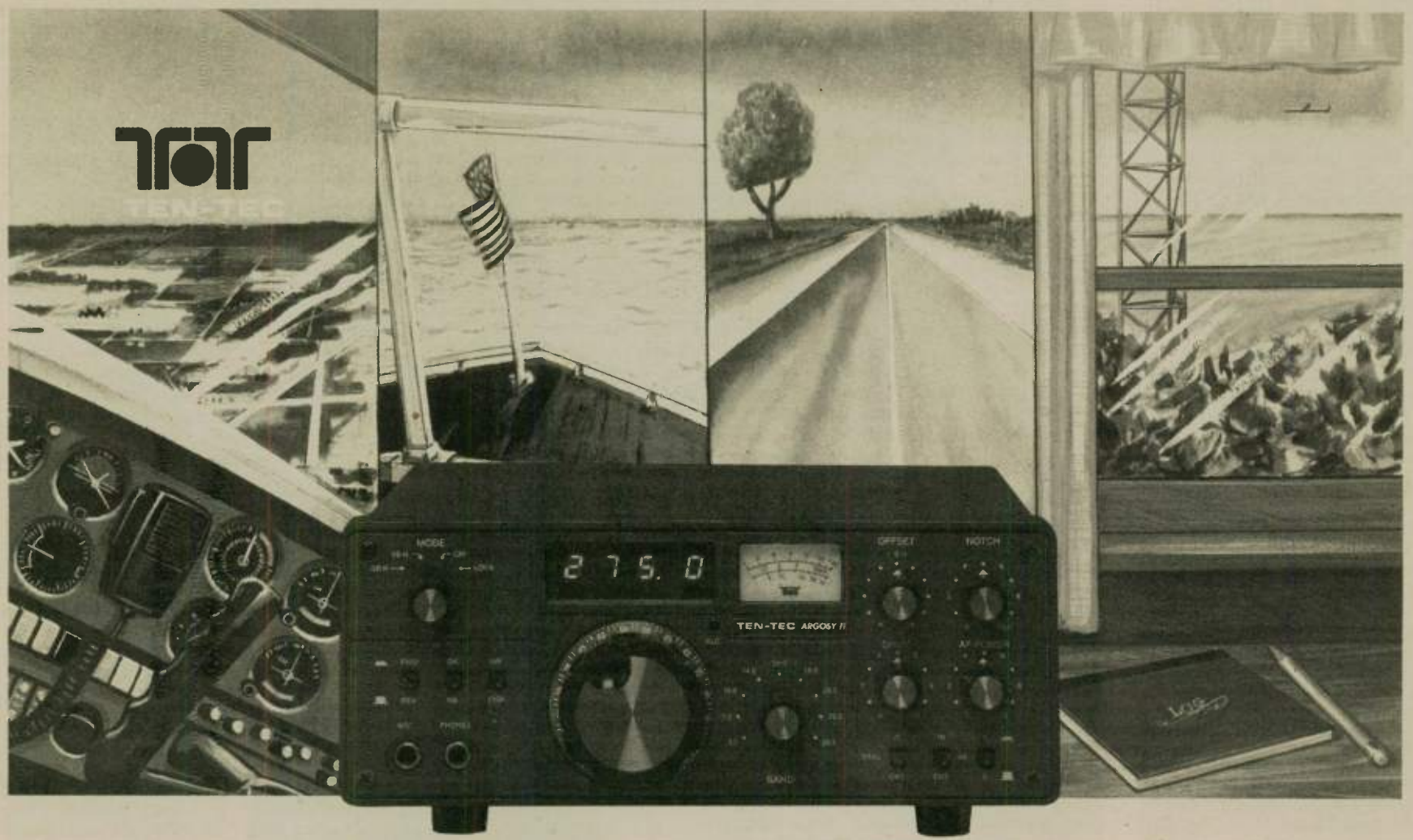
New ARRL officers

The ARRL Committee of Tellers met recently to count ballots in the elections just concluded for Director and Vice Director. The number of votes credited to each candidate is as follows. The first candidate is declared elected for the next term of office.

Atlantic Division for Vice Director — George W. Hippisley, K2KIR, 2193; Merle E. Glunt, W3OKN, 1399; Edward J. Kuebert, K3KA, 794; Vincent H. Bardsley, KB3OM, 618. **Delta Division for Director** — Clyde O. Hurlbert, W5CH, 1301; O.D. Keaton, WA4GLS, 834. **Midwest Division for Director** — Paul Grauer, W0FIR, 1606; Robert S. McCaffrey, K0CY, 954; Wellington B. Stewart, K0SI, 347. **Pacific Division for Director** — William J. Stevens, W6ZM, 1467; Robert B. Vallio, W6RGG, 1089; Jettie B. Hill, W6RFF, 760. **Pacific Division for Vice Director** — Kip Edwards, W6SZN, 1537; Frederic N. Barry, K6RTU, 631; James D. Knochenhauer, K6ITL, 573; James A. Maxwell, W6CF, 565. **Southeastern Division for Director** — Frank M. Butler Jr., W4RH, 3235; Stewart H. Woodward, K4SMX, 1680. **Southeastern Division for Vice Director** — Evelyn D. Gauzens, W4WYR, 3361; James A. Gundry, W4JM, 1512.

The new Directors and Vice Directors take office starting 01 January 1984. On that date, the following candidates, previously declared elected, also take office for two-year terms.

Canadian Director Thomas B.J. Atkins, VE3CDM, **Vice Director** Harry MacLean, VE3GRO. **Atlantic Division Director** Hugh Turnbull, W3ABC. **Dakota Division Director** Tod Olson, K0TO; **Vice Director** Howard Mark, W0OZC. **Delta Division Vice Director** Robert P. Schmidt, W5GHP. **Great Lakes Division Director** Leonard Nathanson, W8RC; **Vice Director** George Wilson, W4OYI. **Midwest Division Vice Director** Claire Richard Dyas, W0JCP. □



ARGOSY II
at home everywhere

Like its namesake, the ARGOSY II is a great traveler, land, sea, or air. And it has the right features to be an equally good companion at home.

Mobile/Portable/Fixed operation is easier with ARGOSY II. Broadband design eliminates receiver and final amplifier tune up. Small size permits convenient installation. Simple controls and switches make operation easy—even without looking. And its basic 13 Vdc design permits battery operation, drawing just 750 ma. on receive and 9 A max. on transmit to allow plugging into a car's cigarette lighter outlet for mobile use. Plus the easy disconnect from its mobile mount permits moving the ARGOSY II for fixed station use or safe keeping.

Two-Level Power. Switch from QRPp (5 watts output) to QRO (45 watts output). Low power for portable use from batteries, high power without a separate power amplifier. Low power for the challenge of QRP operation, high power for greater punch when conditions require it. Both power levels have ALC with optimum drive indicated by a front panel LED.

Solid-State, Six-Band Design. Covers 80-10 Meters, including the 30-meter band, in 9 segments (four for 10 Meters) with 40 kHz overrun on each band edge. Excellent sensitivity (0.3 μV), offset receiver tuning (±3 kHz), built-in notch filter tunes 200 Hz-3.5kHz, optional noise blanker, WWV reception, QSK, sidetone pitch and volume controls, and a new easy-to-read digital frequency display uses 4 large red 0.3" LEDs to indicate frequency (the bandswitch indicates band in use). Every feature you need for easy use and fine performance.

A great rig for traveling — and for staying home. Some of the features that make ARGOSY II perfect for mobile use also make it an ideal fixed station transceiver. One is its size—just 4" high, 9" wide, and 12" deep—so it fits conveniently on a desk with plenty of room left for accessories. And there's a full complement of accessories to choose from for mobile or fixed operation—microphones, filters, keyer, speech processor, mobile mount, and an ac supply. Best of all, ARGOSY II is low cost.

Check out the at-home-everywhere new digital ARGOSY II. See your dealer or write for information to TEN-TEC, Inc., Sevierville, TN 37862.

Big Island Emergency Net

Hawaiian quake

Corky Kirk, W6ORS

At approximately 0613 (1613Z) on 16 October, a 6.4 earthquake (reported 6.7 from Colorado) hit the Hilo, Hawaii area with epicenter estimated to be on the south slope of Moana Loa volcano, about 30 miles southwest of Hilo and about two miles from the town of Volcano, Hawaii.

At 0614, Dave Schroeder, AH6K — ARRL Emergency Coordinator, activated the Big Island Emergency Net on 146.82 MHz, the only repeater left on the air (it was on emergency power). This repeater is the eastern link of the statewide inter-island 2-meter network serving the islands of Kauai, Oahu, Molokai, Maui, Lanai and the Big Island of Hawaii. Over the next four hours, 32 check-ins were to be logged by Net Control W6ORS, who was on frequency taking damage reports for relay to the American Red Cross and the local Civil Defense agencies.

The inter-island network starting on the side of Big Island volcano Moana Loa is beamed to the top of Haleakala volcano on Maui on 432 MHz and is downlinked there to serve Maui on 146.94 MHz. It is then beamed to Diamond Head on Oahu and serves the Honolulu area on 146.88 MHz. The downlink into Honolulu was operating and check-ins were taken from both the metropolitan Honolulu area as well as from the island of Kauai.

Since the AH6P emergency net repeater wasn't operating (146.76), Bob Schneider, AH6J, took off for the Kaulani Cone site to check on this repeater as well as the repeaters for the local electric company, the telephone company and the police department. Since this site was almost at the epicenter, and since the site is a rather remote one, extreme difficulty was experienced in reaching the equipment room due to rock and earth slides encountered en route. The last mile or so was strictly a footpath, with no hope for vehicle travel for some time. Helicopter access was recommended for any further visitation to the site at this time.

A report of equipment damage was made to the local police department, and a general report was forwarded to the office of Civil Defense, since all repeaters were off the air, and damage repair personnel were already en route.

As the day progressed, check-ins were logged, including a lot of local amateurs, but included many off-island amateurs from Oahu. Included were: AH6K; Bob Schneider, AH6J; Albert Martin, AH6N; John Johnston, KH6HO; Dean Manley, KH6B; Harley McNichols, KH6GKR; Manuel Pires, KH6AY; Dan McGhee, KH6JEG; Paul Lieb, KH6HME; Dan McGregor III, KH6JCB; Frank Bishop, KH6BX; Jack Otterson, KH6W; Roger Rumbaugh, KH6WV.

Dave KH6OB and Margaret Culnan, KH6WA; KH6IAR; Joseph Weite, KH6GDR; Sam Chiang, KH6HNU; Bob Terry, KH6CIZ; Bill Baisley, KH6S; Henry Heuer, KH6CXJ; Hideo Gushiken, KH6JAF; KH6AMU; Clyde Preece, KH6NK; Lemuel Stevenson, WA6PBO/KH6; Julian Kau, N3CMD/M; Doug Stevens, WA2BBS; Carl Lippman, WH6ANH; and W6ORS.

Telephone contact was made with the American Red Cross and damage reports were requested of the net. One such request was to confirm a report from the town of Volcano where houses and chimneys were reported down, as well as cracks in the road.

Contact was made with Will Tanigawa, KH6IMB, of Volcano by landline and the report called to the Red Cross. Also, a contact was made with John Prugh, WH6AVX (on Navy MARS), for a report on school closure in the Pahala area. That report was also called to the Red Cross in answer to their request. All totaled, approximately 10 landline calls were made/received to obtain/pass traffic or information for these two agencies.

By 1030 (2030Z), things were quiet on frequency, and since the better part of the morning had passed by without serious damage and since the traffic for the net had diminished to near zero, the Big Island Emergency Net was closed at 1035 (2035Z). □

1984 International VHF/UHF Conference

The 1984 Dayton Hamvention's International VHF/UHF Conference will be held concurrently with the Hamvention, from Friday, 27 April through Sunday, 29 April. Activities again will include:

- Noise Figure and Dynamic Range Measurement Contests for 144-2304 MHz, with certificates awarded in Commercial and Homebrew categories, and prizes for the Homebrew winners.
- Antenna Range Measurement Contest for 144, 220, 432 and 1296 MHz with certificates awarded for Maximum Gain and Best Figure of Merit, and prizes for the Homebrew winners.

International and out-of-town attendees are urged to make lodging, travel and local transportation arrangements *as soon as possible* to ensure availability.

Technical papers and presentations on VHF/UHF topics of interest are being solicited for consideration. Potential speakers should submit their requests immediately. For further information, contact: Jim Stitt, WA8ONQ, VHF/UHF Conference Moderator, 4126 Crest Manor, Hamilton, OH 45011. □

Papers wanted for conference

The ARRL will hold its 3rd Amateur Radio Computer Networking Conference on 15 April, in Trenton, New Jersey. The conference will be in cooperation with the 9th Trenton Computer Festival (TCF84), being held 14-15 April, at Trenton State College.

The deadline for camera-ready papers is 01 March 1984. All papers should be mailed to Paul L. Rinaldo, W4RI, ARRL, 225 Main St., Newington, CT 06111. If you plan to present a paper, please request an author's guide and identify the title of your paper immediately. Proceedings will be sold at the conference and by mail from ARRL Headquarters.

Technical papers are invited on all aspects of amateur packet radio, AMTOR, computer-based message systems, digital speech, presentation-level graphics and related Amateur Radio digital communications via terrestrial, ionospheric, meteor-scatter and satellite media, including AMSAT/OSCAR-10 and PACSAT. Topics may include network and system architecture, proposed standards, hardware, software, protocols, modulation and encoding schemes, applications and practical experience. □

Special Events...

Winter Carnival

The North Okanagan Radio Amateur Club (NORAC) will be operating a special event station during the annual Winter Carnival in Vernon, British Columbia (western Canada's largest), from 01 February to 12 February. Operating times will be from 2100Z-2430Z, daily, in the General portion of each band — about 50 kc's up, calling "CQ Winter Carnival Award."

An award will be issued to all amateurs worldwide, who contact three Vernon area stations, or one QSO with our club station VE7NOR. Any mode or band is permissible. Please send $1 or 2 IRCs to cover postage. □

Oregon's 125th

The Oregon Tualatin Valley ARC will operate stations K7RXV, KA7HJT and K7JF, from 1700Z, 12 February until 0300Z, 13 February, in celebration of Valentine's Day and Oregon's 125th anniversary of statehood. Frequencies will include 14.280, 21.360 and 28.510.

A special certificate will be sent to those sending a large SASE to the Callbook address of the station worked. □

Train wreck SET

On 29 October, at 0936 hours, a Seaboard Coastline train passing through Orange Park, Florida, left the tracks, and a tank car spilled a reddish-brown yellow vapor near a residential area. This is the scenario for the Clay County, Florida Simulated Emergency Test (SET).

First on the scene was Joe KI4BI, Emergency Coordinator of Clay County. The Clay County Emergency Net was immediately called on the 07/67 machine, and Bill Steiner, KZ4L, was directed to notify all stations not on the air by telephone. Next notified were the Civil Defense Director, the Clay County Sheriff's Dept., and the local fire department.

The Meadowbrook Fire Dept., after being notified of the nature of the spill, responded with Squad 185, their new hazardous materials unit. Their personnel identified the material as nitric acid and requested that amateurs assist in blocking vehicular traffic and evacuate the area. Evacuation was simulated by passing out fliers to those residents who would have been affected, explaining the nature of the simulation.

Publicity was a prime consideration in this SET. An article was published by the Clay Today newspaper approximately a week before the event, explaining what would happen and the purpose of the exercise. No places or dates were given, allowing it to be called as if it were an actual emergency. The day of the SET, Clay Today had a reporter at the scene who covered the entire event.

Very successful is the only way this SET could be described. As a result of this event, the local ARES group has been invited to participate in a major simulated emergency planned by fire, rescue and police in the near future. □

• Silent Keys •

James Mehren

On 12 November, a memorial service was offered for James F. Mehren, W6EAM, who died 27 October in a Sacramento, California hospital.

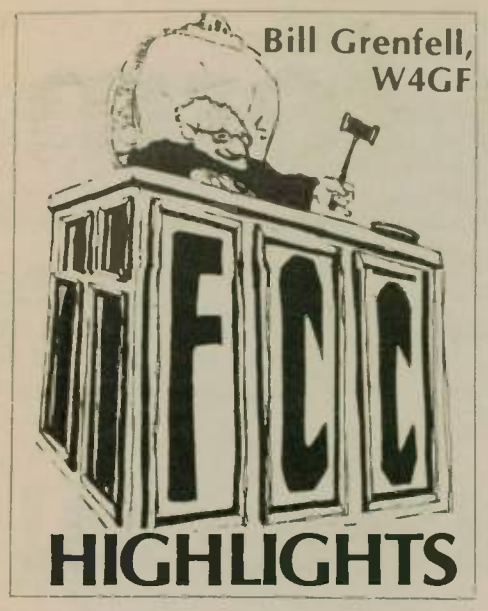
Jim was an active amateur most of his life, and contributed both as an amateur and a professional.

As an amateur, he was active in public service and had previously been active both with the West Coast Amateur Radio Service and the Western Public Service System. He was also one of the first Amateur Radio operators in his home state of Illinois. He is best remembered by his willingness to help his fellow amateur. —*submitted by Tom Diskin, N7TD* □

James Bean

On 24 September 1983, James N. Bean, KØLRO, of Flandreau, South Dakota, passed away. A ham for 26 years, Jim loved Amateur Radio. He taught it to Indian children on the reservations, where he taught school, and to Scouts, as a Boy Scout leader.

He also got several of his acquaintances to become hams, including a friend in his 70's. — *Bonnie Bean, widow of KØLRO* □



Victor C. Clark, W4KFC, president of the ARRL, died 25 November 1983, from a heart attack. I was privileged to have known Vic as a close friend and fellow club member since the early 1950's.

In addition to it being a great personal loss to his family and many friends, his passing is a great loss to radio amateurs all over the world. He had served as a regional president of the International Amateur Radio Union. He was "Considered by many to be one of the best ARRL presidents since Hiram Percy Maxim, 1AW, founded the organization in the early 1900's, . . ." CL W4KFC.

•

The Congress has passed and the president has signed (12/08/83) legislation which will allow a total reimbursement of out-of-pocket costs of the volunteer administration of amateur operator license examinations, not to exceed $4 per examinee.

The ARRL reports that it was accomplished through some rare and outstanding teamwork between the House and Senate. Not least, was the action of Senator Barry Goldwater, W7UGA, who introduced an appropriate bill to amend the Communications Act (S. 2045), on 03 November 1983.

•

A permanent arrangement to permit U.S. Amateur Radio stations to exchange third-party communications with Amateur Radio stations in the country of Grenada was announced by the FCC on 08 December 1983.

•

Former FCC Private Radio Bureau Chief James C. McKinney was presented an "MVB Award" at an informal luncheon in Washington, D.C. on 09 November. Present were ARRL officials and ". . . other prominent Washington-area amateurs . . ."! The plaque, on which a telegraph key was mounted, explained that MVB meant, "Most Valuable Bureaucrat"!

Referring to the key, Jim reminded those present that (while he did not have an amateur license), one of the requirements he had to meet in order to become a FCC Inspector was to pass a 25 wpm code test!

McKinney responded to a query about amateur activity during the Grenada crisis as ". . . one more shining hour of Amateur public service for the benefit of all Americans. The Commission is extremely proud of the service rendered by U.S. amateurs during the Grenada mission!" A former Chief of FCC's Field Operations Bureau, McKinney is now the Chief of the Commission's Mass Media Bureau.

•

The FCC's 1984 examination schedule shows a drastic reduction in the per-year examination sessions. Exams at Field Offices have been reduced to once per quarter. Examinations at other locations have been reduced or eliminated.

According to *The ARRL Letter* of 11/10/83, FCC sources report that ". . . these reductions are the direct result of budgetary planning conducted approximately 18 months ago and have little to do with the Volunteer Exam program."

I have been advised that at one time in the budget planning, restrictions on FCC-administered Amateur examinations were even more severe!

•

Should the new Element 3 examination questions be designed for multiple choice answers or for other types of answers?

According to the *The ARRL Letter* of 11/10/83, "Several hundred multiple choice questions submitted to FCC have been rewritten by the Commission into non-multiple choice format — some yes/no, some single-word answer, some short answer, etc. The result is a pool lacking in uniformity of quality and difficulty, which could lead to a program in which standards may not be uniform.

"The Commission remains firm in its insistence on flexibility in the test format. Claiming a desire not to overregulate, FCC wants the responsibility for consistency of exam administration standards to be the VEC's *as monitored* by the FCC." (FCC personnel concerned, advise me that they tried to deliberately design the questions so that all the questions may easily be used for any one of the several accepted answering formats).

"Their control will consist of requiring VEC's to submit pass/fail rate summaries of all test sessions to guard against overzealous or overly permissive Volunteer Examining teams or VEC's."

FCC released the 500-question pool during the last week of November. It is available from FCC Field Offices or from ARRL Headquarters for an SASE. Ask for a copy of PR Bulletin 1035-B (October 1983), Questions for the Element 3 Amateur Radio Operator License Examination.

•

The case of the appeal of the conviction of Richard Burton, ex-WB6JAC, for operating a station without a license and for transmitting obscene, indecent and profane language was sustained in part and

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 November 1983.

For more information about call sign assignment in the Amateur Radio Service, see Section 97.51 of FCC Rules, or write to the FCC, Consumer Assistance Branch, Gettysburg, PA 17325.

Radio District	Group A Am. Extra	Group B Advanced	Group C Tech./Gen.	Group D Novice
0	ND0D	KD0LE	N0FCB	KA0ROA
1	KT1K	KB1KU	N1CWH	KA1KYE
2	ND2K	KD2DN	N2EQD	KA2TMT
3	KR3K	KC3KV	N3DRI	KA3LTJ
4	WW4J	KI4BT	N4JMI	KB4HND
5	NM5O	KE5IQ	N5GNR	KA5SHJ
6	NV6V	KF6PP	N6JOW	KB6COX
7	NE7P	KD7QK	N7FTH	KA7RKV
8	NG8D	KD8NB	N8FJR	KA8THL
9	KY9V	KD9FF	N9EGO	KA9QPH
N. Mariana Is.	AH0D	AH0AB	KH0AF	WH0AAG
Guam	AH2S	AH2AW	KH2BJ	WH2ADW
Johnston Is.	AH3A	AH3AC	KH3AB	WH3AAC
Midway Is.		AH4AA	KH4AD	WH4AAF
Hawaii	WH6O	AH6FD	NH6AC	WH6AXU
Kure Is.			KH7AA	
American Samoa	AH8B	AH8AB	KH8AC	WH8AAO
Wake Wilkes Peale		AH9AA	KH9AB	WH9AAA
Alaska	**	AL7FL	NL7CX*	WL7BBE
Virgin Is.	KP2J	KP2AS	NP2AY	WP2ADN
Puerto Rico	WP4C	KP4HJ	NP4HF	WP4DDG

*The computer missed the following call signs and they are loaded in the following sequence:
After NL7CZ is issued Group C Blocks KL7TA-KL7TZ and KL7YA-KL7YZ will be issued.

**All of the Group A call signs for Alaska have been assigned. Any request for a Group A call sign will now be assigned a Group B format. □

reversed in part by the 9th Circuit Court of Appeals of Los Angeles. The reversal was on the obscene language count because of lack of evidence.

The case was returned to the district court for re-sentencing, according to *Westlink Report* of 11/18/83. Burton's station and operator licenses were revoked and suspended on 11 September 1981.

•

With the help of Seattle area amateurs, the FCC is cracking down on unlicensed use of the 2-meter band by Puget Sound fishermen.

"Already, one of the illegal operators has surrendered his unlicensed ham radio equipment rather than having to pay a $750 fine levied against him." (11/18/83 *Westlink Report*)

FCC personnel advised me that the problem of illegal use of amateur equipment on amateur frequencies is not confined to 2 meters and Puget Sound. A considerable amount of such use is going on on the high frequencies and by yachtsmen as well as by operators of commercial vessels.

•

The *FCC Rule Book*, ARRL's volume containing the amateur rules, Part 97, and explanations of the rules, is being updated, according to *The ARRL Letter* of 11/22/83. The next edition should be available early in 1984. Many amendments to the rules have become effective since the current edition, which covered all FCC amateur rules changes through January 1983, was published.

•

The FCC adopted modifications to the frequency allocations rules on 08 November, to bring them in line with the World Administrative Radio Conference of 1949. While details were not available as this was written, it should permit work to begin toward clearing the 18 and 24 MHz bands for U.S. amateur use.

Experimental licenses have been granted to amateurs making propagation studies in these bands as well as the new 902-928 MHz band. An October 20 FCC news release describes a significantly simplified process for obtaining an Experimental radio license.

•

Amateur license statistics for several past months are as follows:

Class	30 September	28 October
Extra Class	33,909	34,018
Advanced	95,381	95,478
General	118,263	118,172
Technician	76,433	76,548
Novice	86,781	86,219
Individual Operators	410,767	410,435
Club Stations	2,477	2,464
Mil. Recreation	196	194
Secondary Stns.	253	253
RACES	535	535
Total Stations	414,228	413,881

•

The document amending Part 2 of the FCC Rules to reflect the frequency allocations, adopted in the final acts of the World Administrative Radio Conference of 1979, was released by FCC on 08 December 1983. While some published comments on its effect on the Amateur Radio Service claim ". . . there will be few surprises", others claim a ". . . possible future regulatory change . . ." to the 220-225 MHz band ". . . in deference to Land Mobile users of of amplitude companded SSB."

While in the past there was some "push" from within the FCC to propose such use of the band. I am advised that the source of the push is no longer effective. In any event, a proposal for such a change would have to follow the standard rule-making procedures which allow for preparation and consideration of opposition to any change in the priority of the current Radio Service use of the band.

(continued on next page)

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_____

FCC

(continued from page 9)

•

FCC-coordinated answers to questions about what is and is not considered business communications prohibited via amateur stations are presented in November 1983 **QST**, page 72. *ARRL Letter* (10/28/83) adds to the examples by relating how "FCC denied requests by the media to use Amateur Radio to conduct over-the-air interviews" (with people on Grenada).

•

Would you like to know what the new FCC Private Radio Bureau Chief, Robert S. Foosaner, thinks of the Amateur Radio Service? He is quoted in **QST**, saying "I will do anything that is legally permissible to keep the Service as it was intended." For more, see pages 66 and 67 of the November 1983 issue.

•

A request for reconsideration on the "elimination of individual CB licenses" has been denied by the FCC. According to *Westlink Report* (10/21/83), the Maryland State Police filed the request.

•

"The FCC says it will seek license revocations against amateurs who place uncoordinated repeaters on the air in defiance of local or regional coordination policies, if they cause interference to the operation of previously existing repeater systems. This information was made public in an interview with FCC Special Services Division Chief Ray Kowalski by Westlink reporter (and ARRL Hudson Division Vice Director), Steve Mendelsohn, WA2DHF." (from the 10/21/83 edition of *Westlink*).

•

Some industry analysts are predicting yet another CB boom like that of the '70s, due to the delicensing of the "Service", according to *Westlink Report* (10/07/83).

•

The FCC has "terminated" its proposed expansion of the 10-meter repeater subband, PR Docket No. 83-485. Comments advised there was no evidence of crowding in the present 29.5 -29.7 MHz repeater band. Objection to repeater use of the proposed 29.0 - 29.5 MHz addition was on the basis that it would interfere with AMSAT communications.

•

The FCC has adopted a new form, 854, which is to be used by amateur licensees who propose to erect antennas which exceed the height limits of Amateur Rule Section 97.45. The change from use of Form 610 and Form 714 is effective 03 January 1984. After that date, any need to request approval of an amateur station antenna can be met by filing on Form 854. Filing for a modification of the station license via Form 610 will not be required. The 854 will be processed at FCC's Washington, D.C. 20554 address and should not be sent to the Gettysburg license processing facility.

•

A challenge of the FCC's recent Order, expanding the 20-meter phone band, has failed (First Report and Order, PR Docket No. 82-83, Expansion of the Telephony Segments of the High Frequency Amateur Radio Service Bands).

On 21 October 1983, the Commission announced it was denying the petition of Malcolm Mallette for reconsideration of its action of 31 March 1983, granting exclusive phone privileges to Extra Class amateur operators between 14,150 and 14,175 kHz. He claimed that the Communications Act gave each Advanced Class licensee the right to a hearing prior to any change in operating privileges. FCC said the regulation cited did not provide a basis for reconsideration.

•

Current annual FCC costs for giving amateur operator license examinations have been estimated to be in the one-half to $1 million bracket, and costs under a volunteer examiner program have been estimated at $100,000 to $200,000 per year.

Incidentally, in an October 19th letter to the Commission's Private Radio Bureau, the ARRL said FCC ". . . has the authority to charge an examination fee to cover the out-of-pocket expenses of the VEC program and . . . it may delegate this power to government-sponsored VEC's themselves, ..." (from *ARRL Letter* 10/28/83). The League went on to say it " . . . hopes it will convince the FCC that the agency already has the aforementioned authority so that the necessity for further amendments to the Communications Act of 1934, as amended, will be obviated."!

•

Do the FCC's current code test procedures and requirements differ from those which can be used by volunteer examiners under its recently adopted examination rules?

In reviewing a *W5YI Report* (10/15/83) three-page condensation of FCC's Order (Docket 83-27) adopting the volunteer examination procedures, one amateur association flatly stated in their November bulletin that applicants will be required to receive one full minute of code without error and ". . . the sending test has been reinstituted(sic)". The pertinent "old" rule is 97.28(c), which provides that the code test ". . . shall determine the applicant's ability to transmit by hand key (straight key or, if supplied by the applicant, any other type of hand-operated key such as a semi-automatic or electronic key, but not a keyboard keyer) and to receive by ear, in plain language, messages in the International Morse Code at not less than the prescribed speed during a five-minute test period . . ."

The pertinent new rule Section, 97.29(c) modifies the wording of "old" 97.28(c) to read ". . . and to receive correctly by ear texts in the International Morse Code at not less than the prescribed speed for one continuous minute during a five-minute test period . . ." The transmitting requirements of 97.28(c) are not changed in 97.29(c).

Current code tests administered by the FCC's Field Operation Bureau's examiners consist of listening to and copying a recording of a typical five-minute ham QSO. The applicant is given 10 fill-in-the-blank type questions about the content, with seven correct answers required for passing.

In response to comments in the Docket 83-27 Rule Making proceeding, FCC reported being urged to conform the new rules as much as possible to present telegraphy examination techniques and, in the reply comments, that it was asked to reinstate a code-sending examination. Paragraph 26 of the Report and Order answers as follows:

"We wish to give examiners sufficient latitude to formulate telegraphy examinations within the framework of present rule requirements. Accordingly, we have incorporated all of the present telegraphy examination requirements and guidelines from our present rules. We will allow volunteer examiners the same latitude the present rules allow. Thus, we will accept as valid telegraphy examinations based upon receiving tests, just as we do today." (FCC's Report and Order in PR Docket No. 83-27, Adopted: 22 September 1983).

When queried about the conflict between the new rule and paragraph 26, FCC advised that its intent was correctly presented in paragraph 26, that the text of an old rule was inadvertently incorporated in new Section 97.29 (c), and that an errata notice with appropriately corrected text would soon be released.

•

The FCC's 1979 Amateur license examination work load indicates the possible size of the volunteer examination task. In 1979, the FCC supervised some 66,000 amateur examinations at 159 different locations. A call area breakdown, in rounded numbers, follows: Fourth, 12,000 examinations at 29 locations; Zero, 8,000-20; Eighth, 7,400-10; Sixth, 6,700-6; Fifth, 6,300-23; Second, 5800-15; Ninth, 5200-5; Seventh, 5200-20; Third, 4700-9; First, 3300-6; Atlantic (San Juan), 683-1; Pacific (Hawaii-4, Guam-1), 568-5; Alaska, 398-8. The present amateur examination work load is estimated to be at a level of about 40,000 per annum. □

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I have a few "J" series U.S. Army keys and would like more information on that series. Knowing how Uncle Sam does things, there had to be a "J 1", but where did the series end? I'd like data, including manuals, on any of the "J" series, plus keys if anyone has some available.

Season's Greetings.

RICHARD RANDALL, K6ARE
Livermore, California □

Work Puerto Rico

I will appreciate it if you can publish my DX address: Carlos M. Colon, NP4FR, P.O. Box 3334, Carolina, P.R. 00628. Please SASE for USA station.

Also, tell everyone I am available for any DXer that would like to DX Puerto Rico. I'm mostly on 14.225 MHz, Saturday and Sunday, 1200 GMT to 1500 GMT.

CARLOS COLON, NP4XR
Carolina, PUERTO RICO □

Search for computer program

I'm trying to find a program for the Commodore 64 computer along the lines of "global", which was in — I believe — 73 Magazine about five years ago. It would let you put in your latitude and longitude and the other station's geographical location, and print the distance in miles.

Is there such a listing available that will run on the Commodore? If so, where can I locate one?

GARY PAYNE, KE6CZ
1347 East Dakota
Fresno, CA 93704 □

Kind words to QRPer

Having set up my peanut whistle rig (Argonaut) in Italy, complete with 20-meter dipole above and across the air shaft-court of this five-story apartment building, I was keen to go on the air, so tail-ended a QSO Belgium-Italy (from this same "county") when the Italian went QSY.

After dropping in my call sign, I heard the Belgian say, "There are two stations calling me; I'll take the weak one first," and proceeded to work me. Those kind words made my day. I felt like jumping through the mike and giving him a kiss on both cheeks! He game me a 5-5 report — no big deal, but enough to warm the heart of a QRP'er.

FRANK WILLIAMS, KA8PIV/IV3
Trieste, ITALY □

Voice from the past

It was a hot 17 August 1983 night, and so was the short skip on 10-meter band. I had just gone into the bedroom for a night's rest, turned my FRG7700 on by the bedside, heard three hams in and around McAlester, Oklahoma talking, and recognized one as W5BGC, Harry.

A thought came to me. Maybe this guy was Harry Wilson, my photo officer at Perrin Field, Texas during WWII. I remembered he was a ham at that time. Now, 38 years later — with no contact with him, I came to the shack and gave a call . . . and sure enough, it was Harry. He was so surprised he could only laugh. That was one of my big moments in Amateur Radio.

I was not a ham during WWII, but was very much interested in Radio. Went to the flight line and talked myself into a couple of tubes, a few parts and cut a piece of metal out of a P47 junked fighter. Boy, was it tough metal. Turned this into a two-tube receiver that worked very well.

MORRIS HOCKERSMITH,
WB4MNX
Louisville, Kentucky □

Help wanted

After having purchased a new computer, I wish to interface it to Amateur Radio for the purpose of copying CW and RTTY. The computer is made by EPSON, called the QX-10. It uses a Z80A Microprocessor, 4 MHz clock rate. Other specifications are: 1) Disk — Double Density D.S.; 2) DMA — 1 main system, 1 option slot, 7 DMA channels; 3) Printer I/F — Programmable Parallel; 4) Serial I/F — Multi-Protocol; 5) Interfaces — RS-232 Programmable, DB-25 Connector; 6) Light pen — no info; 7) Option slots — Five.

My QX-10 is set up to handle CP/M-80 R2.2; MBasic and Z-80 FORTH by Laboratory Microsystems. The present word processor is called Valdocs, which is TPM-II.

Whatever help your company can give me in getting this interface going, I and a few of my friends would be very pleased. Also, I would like to add that if this system (QX-10) cannot be interfaced, I have been looking to purchase the KAYPRO 4 Computer if it could be interfaced.

As far as software control, I do need a good program that will produce files that my word processor can read that is ASCII.

GLEN FULLER, WA8EQO
Box 765, USCG S/C
Kodiak, AK 99619 □

Search has ended

Reference my request — "Help needed in search" — in the December issue (page 10), be advised: Sgt. C.B. Williams, USMC Ret., received a phone call from his Marine Corps buddy on 30 November! Both were very glad to reestablish contact after 25 years.

Thank you very much on their behalf and mine.

J.R. TOWNSLEY, K7SUX
Vancouver, Washington □

Extra Class in less than five months

Pat Crossman wanted to be a ham very badly and had tried taking a licensing course at a local junior college, but had been "turned off" by the math, which was way over her head. Pat is a para-legal, and has had very little education in math and the sciences.

On Veterans Day, 1982, she fell and broke her hip. After getting out of the hospital, she spent many hours listening to the general coverage receiver her OM, Ralph K6HAV, had gotten her for her birthday, and was again hard-bitten by the ham bug.

The Heathkit General Class License Course was sent for. It arrived on 26 January 1983. Sixty-one days later, Pat went to the FCC and took the 20 wpm code test as a warm-up — and passed it.

She then failed the General Class written exam by three questions. More (*please turn to page 14*)

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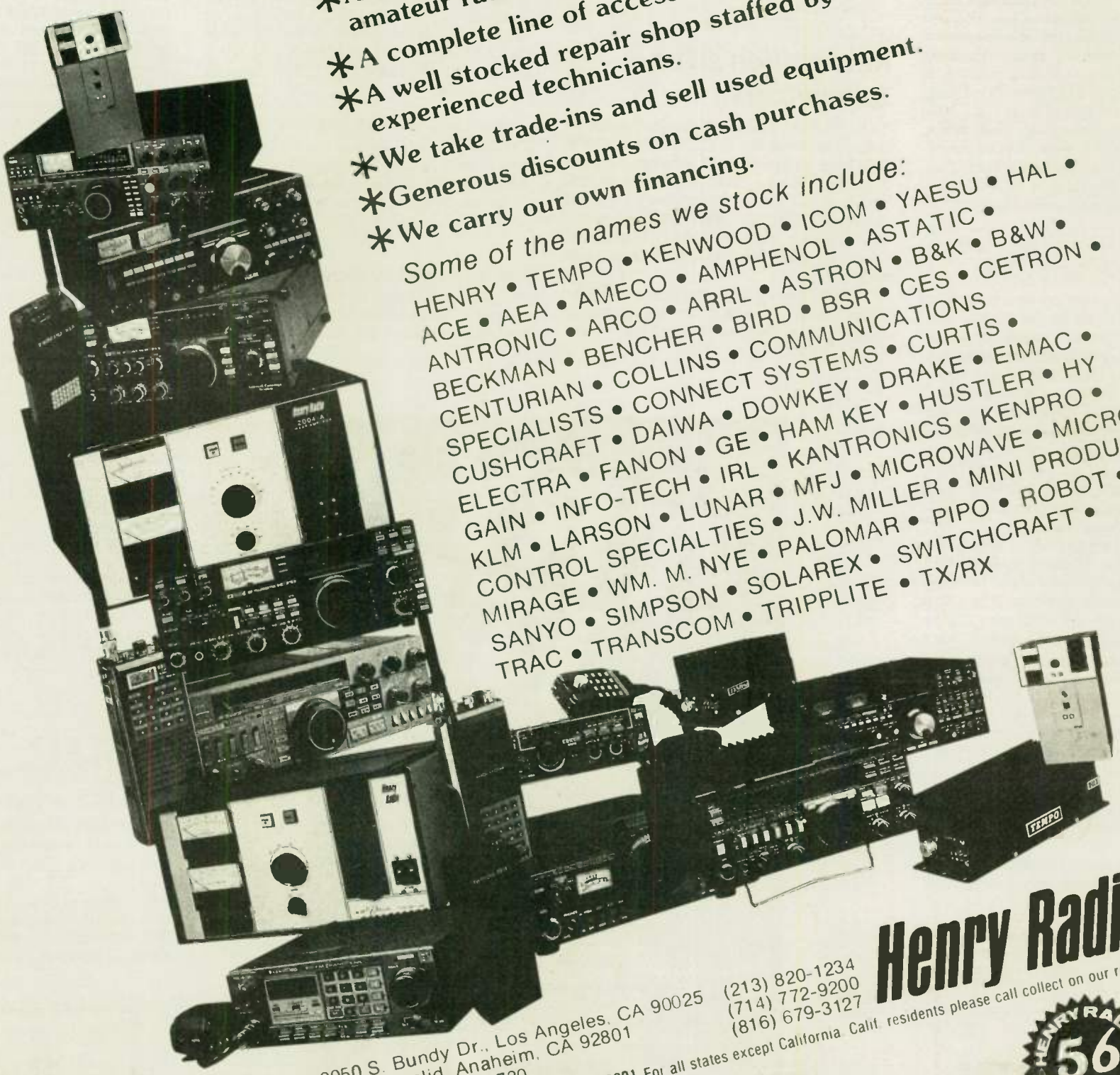

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Off the Air

(*continued from page 12*)

studying and back to the FCC 96 days after receiving the course. She passed the General Class examination and failed the Advanced Class exam. Another month and another shot at the Advanced Class license and another failure.

On 15 June 1983, 139 days after starting her studies, she passed both the Advanced and Extra Class examinations.

It must be pointed out that she did have the time to study, and it's obvious that she put it to good use, but the point is that she persisted. She may be very inexperienced, but she's an Extra Class radio amateur, with all of the privileges thereof. From no license to Extra Class in 139 days!

Others may have, or will go, from no license to Extra in a shorter time than Pat has, but I'm very proud of her — she's my wife.

RALPH CROSSMAN, K6HAV
Vista, California □

Friends in Spain

During October, the XYL (Barbara N6JFZ) and I (Dave N6OF) were lucky enough to have a three-week visit to Spain. Our trip took us through 22 provinces, some of which we were only able to glimpse from train or bus windows, but we were able to stay a day or two in a lot of beautiful towns. Due to a change of plans, we moved our trip ahead by a month, and I decided not to request permission to operate in Spain on 2 meters.

Fortunately, I did take some QSL cards with addresses, but the two contacts I made the month before our trip were with stations not in the Callbook.

I made contact with five EA amateurs by landline or in person. Pedro Alarcon, EA5AAQ, and Tony Galiana, EA5DFH are located in Elche (Alicante Province). They kept our hotel phone busy until late at night as they tried to find some addresses for me. We were overwhelmed by their kindness and regretted having to leave very early the next AM before we could have an extended eyeball QSO.

Our trip was a combination of an eight-day tour and 12 days on our own, and at the time we were in Pedro and Tony's area, we were on the tour part. Our conducted tour ended in Barcelona, and since there were many things to see in Barcelona, we stayed there three days. I called Dr. Dolcet, EA3CBQ, of the Lynx DX Group, and he was to meet with us, but due to a medical emergency or some mix-up, we were unable to get together.

After Barcelona, we made our way along the River Ebro — Spain's largest river — to Burgos. There I was able to contact Christian Santamaria, EA1BBH, who is the local delegate of the URE. He, in turn, located Alex Zaballos, EA1BSU, for me. I wanted to meet Alex, as we had had a real nice QSO some time before I was sure I'd be going to Spain. The three of us enjoyed an eyeball QSO over drinks at a nearby cafe, and that evening, Alex picked Barbara and me up at our hotel and we had a very enjoyable visit at his home.

Alex's family proved to be outgoing and hospitable. There were two boys, 5 and 6 years old. The older was learning CW, and both were studying English with a private teacher from England. Alex's charming wife is interested in radio about as much as Barbara, who only gets on 2 meters.

Although Alex has only been on the air for a few years, he has a very professional station and is active on the air. He needs Utah and one or two other states for WAS. He says that Amateur Radio is getting popular in Spain after being more or less taboo for a long time.

I picked up a first edition CQ Magazine in Spanish with a picture of King Juan Carlos, EA0JC, on the cover, and I heard the same complaint we hear in the USA — of too much advertising.

To end, let me say that I have found that amateurs welcome other amateurs the world over — especially in Spain.

DAVE BELL, N6OF
Escondido, California □

Recognition given to amateurs

On 01 July, President Reagan declared certain areas along the Colorado River in Southern California and Arizona as flood disasters, making them eligible for federal assistance. I am an Emergency Disaster Reservist for the Federal Emergency Management Agency (FEMA), and was called for duty with the federal disaster relief efforts.

I would like to take this opportunity to make note of, and offer my personal appreciation for, the assistance of the local Amateur Radio operators in relaying personal messages *as well as* providing valuable information that helped me in the performance of my official duties.

These activities were not unnoticed by other federal officials, as this letter from the FEMA Public Information Office indicates:

Once again, radio amateurs responded to a community need and gave generously of their time and energy. I refer specifically to the use of hams in providing emergency communication up and down the Colorado River during the recent flooding.

Although there were many involved in this work, I was personally in contact with Dr. Lee Thompson, K7WUG of Phoenix and Mrs. Ruth Spreng, WA6ZVN, Lake Havasu City. Their cooperation in transmitting vital information was most helpful and is greatly appreciated.

The letter is signed: Jack R. Wagner, Public Information Officer (for the Federal Emergency Management Agency [Region Nine]).

SCOTT THOMPSON, KB6CC
Visalia, California □

Family of Extras

My OM (Robert WA3CXW) has been a ham for over 20 years. About three years after we were married, he persuaded me to go after my Technician ticket. I thought I would never accomplish the great feat of the 5 wpm code test and thought about giving up on it all. But somehow, I did it and the bug bit me. I was up all hours of the night working CW. It took about two years and before I knew it, I took the General test and passed the 13 wpm.

One night while on the air, my 9-year-old son stood next to me by the rig and asked, "Could I learn that?" Not knowing how serious he was, I said, "If I can, you can." Now, my 10-year-old son was not to be outdone by his younger sibling, so the rivalry began.

Lo and behold, with the aid of my OM — an excellent CW operator, my two sons were copying CW at 10 wpm. Needless to say, it wasn't long before they got their Novice tickets. They were also bitten by the bug of realizing the expanded benefits of a higher class license.

Within what seemed like no time at all, they got their General and Advanced licenses. By this time, they were 11 and 12, leaving me behind with my General ticket. I was determined not to be "passed up" by my kids. Last April, at the Dayton Hamvention, I finally made the Advanced (this was my third try I might add). Why is it that things come so easy to kids?

Now came the greatest test of all — THE EXTRA CLASS. How in the world was I ever going to copy 20 wpm plus learn all that theory? At least now, we three were on the same "wavelength" — all being Advanced Class. My husband, having been an Extra Class for some time, was confident we could do it (easy for him to say!) After months of code practice and theory questions, he felt it was time. The trip we had to make was about 250 miles from home to the nearest FCC examining point. But he didn't care if we had to go to Timbuktu — we were ready.

The *BIG* day finally arrived. There we were at the FCC office, packed with pens and pencils and calculators. I never realized what nervous was until I sat down in that chair and waited for the 20 wpm tape to begin. Needless to say, my boys were cool as cucumbers! But I still think the OM was more nervous than all of us while he was waiting.

Then it was all over — three newly acquired Extra Class licensees walked out of that building. Maybe I should say we "floated". We were all on cloud nine for the trip back home. I don't know about the rest of them, but it took at least a week for it to sink in what I had accomplished.

Someone in our family can be found daily on the air. We are strictly CW only. The boys are avid DXers, contest winners and county hunters. I should add that my father-in-law (WA3EBJ) who lives next door to us is a ham also. The only one left in the family is the dog — do you think it's possible that . . . ?

The four of us are very proud to be in this special group of people known as Amateur Radio operators and look forward to many years of hamming. Sons — Michael KA3HID (12) and Robert Jr., KA3HIE (13).

MARY POPELLA, KR3L
Belle Vernon, Pennsylvania □

W5LFL

continued from page 1

during the shuttle's flight can receive QSL cards by sending reports to: "Reception Report — STS-9/Ham Radio, ARRL, Newington, CT 06111. Include SASEs with 20 cents postage. Envelopes should also identify applicants for the "Two-way QSL-STS-9/Ham Radio" version QSL cards. —*W5YI Report.* □

Concern over FCC actions

In the November issue, Louis Huber, W7UU, expressed concern over the serious erosion of the fundamentals of Amateur Radio due to FCC actions of the past 10 years or so. Licensed since 1959, I can remember when the U.S. Amateur Radio regulations were a stable institution; major rules changes occurred infrequently and FCC dockets attracted little attention within the amateur community, until incentive licensing came along. Nowadays, however, it seems that almost monthly the FCC releases yet another docket proposal for some major rules change, with far-reaching implications for the Amateur Radio Service.

Looking back over the past decade, the following FCC actions have convinced me that there is a long-term, systematic effort by some element within the Commission to radically alter the fundamental nature of Amateur Radio in the United States.

1) In December 1974, the FCC released "Restructuring" Docket 20282, which would have brought sweeping changes in licensing procedures, power and emission privileges. 91 percent of amateurs licensed at the time would have lost privileges. This docket would have created a no-code entry level license, and redefined the power limit in terms of PEP output.

2) In April 1976, "Bandwidth" Docket 20777 was released. All references to emission type (phone, CW RTTY, amateur TV, etc.) would have been deleted from the rules, and subbands redefined solely in terms of signal bandwidth. AM phone and fast-scan TV would have been virtually "deregulated" out of existence, while amateur emissions — for the first time ever — would have been subject to strict specific bandwidth limits.

3) In December 1976, under Docket 20686, the FCC accepted the *de facto* elimination of amateur call sign areas by deleting the portable/mobile identification requirement. In March 1978, the disintegration of the U.S. amateur call sign system was made complete when the FCC totally revamped the call sign structure, resulting in the confusing system we have today which even QST termed "ridiculous". The remaining significance of call sign districts was eliminated by allowing amateurs to keep their old call signs even when permanently moving to a different call area.

4) In March 1978, under Dockets 21116 and 21117, the FCC adopted the infamous "10-meter amplifier ban," allegedly to combat the FCC-created problem on 27 MHz. In the process, the concept of equipment "type acceptance" got a foot in the door of Amateur Radio.

5) In 1979, "no-code" licensing was brought to light once again, with the Commission's proposal to change Article 41 of the international radio regulations at WARC-79, to drop the mandatory requirement that nations include Morse code in their Amateur Radio examinations. Fortunately, the U.S. delegation was practically laughed out of the conference room as other nations of the world almost unanimously voted thumbs down.

6) In December 1980, the FCC released "Plain Language" PR Docket 80-729 which proposed a comprehensive rewrite of the entire set of regulations governing Amateur Radio. This extensive proposal cost the Commission $30,000 merely to pay printing costs for posting the notice in the *Federal Register*. Among the many substantive changes proposed, the power limit would have been redefined in terms of PEP *input*. There was once again a provision for specified bandwidth limits. Opposition by the amateur community was so complete that this entire proceeding was terminated without action.

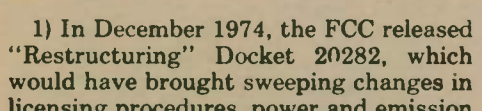
7) In October 1982, FCC released PR Docket 82-624, which was adopted into the rules in July 1983. The Commission finally got its long sought-after power limit based on PEP, while deleting any requirement that amateurs actually be capable of *measuring* their transmitting power!

8) In February 1983, PR Docket 83-28, the latest "no-code" license proposal was released.

W7UU asks what can be done to get the FCC back on track. First of all, we need to find out specifically who is responsible for initiating these dockets and what their motives are. The above listed dockets seem to have a subtle similarity, and FCC proposals don't just happen out of nowhere like mushrooms in the forest. We members of the Amateur Radio community must keep on writing to our congressmen, the ARRL, and maybe even the President of the United States, expressing our dissatisfaction with what is going on at the Private Radio Bureau. It is futile to continue tackling these dockets as they appear, one at a time, as if they were isolated incidents. We must get to the fundamental underlying problem at the FCC.

W7UU calls for litigation. I believe that the present situation calls for a serious investigation, which the Amateur Radio community could initiate under the provisions of the Freedom of Information Act.

DONALD CHESTER, K4KYV
Woodlawn, Tennessee □



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PUBLIC SERVICE

Hams perform well during drill

Jim Parks, WB0GPM

Nine members of the Scotts Bluff ARES recently participated in a community-wide disaster drill, co-sponsored by Scotts Bluff/Twin Cities Civil Defense and West Nebraska General Hospital (WNGH).

According to EC Jim Weber, WD0BQM, the ARES members provided vital communications links from the Emergency Operations Center (EOC) to the Scotts Bluff County Sheriff's Department, where liaison was maintained with law enforcement, fire and ambulance units. In addition, ARES members provided communications between the EOC and emergency room. ARES also had a base station on standby to pass traffic over HF circuits.

Sherry Blaha, Scotts Bluff County/Twin Cities CD Director, explained that the drill was simulation of a severe winter storm that had paralyzed the Nebraska panhandle with deep snow. The drill was held in two parts, with the first being a tabletop exercise where community officials were given mock problems to discuss and solve. The second half of the exercise involved finding a hidden "wrecked" school bus with 14 victims aboard. The victims were made up to simulate actual injuries, and were transported to the WNGH emergency room to test the hospital's disaster plan.

One highlight of the drill for the ARES members was passing a simulated message to the state capital in Lincoln, asking for a disaster declaration and receiving a confirmation and response in eight minutes. The group also used the WD0BQM ARES repeater (which was operating on emergency power), located at WNGH, to pass local traffic.

"The hams are the backbone of our emergency communications and I am pleased with their preparedness and efficiency," stated Blaha. "I know we can count on them to come through for us."

ARES members Shirley Rice, KA0BCB, and Jim Parks, WB0GPM, assisted Blaha in planning the drill, which served as the ARES group's set for 1983. □

Bike-a-thons, SET and amateurs

Nine members of the Lincoln ARC (Nebraska) provided communications for the 3rd Annual October Trek bike-a-thon, sponsored by the American Lung Association. Thirty bicyclists participated in the fund-raiser, which covered 100 miles over two days — 15-16 October.

Working primarily on 52 simplex, club members kept track of the head and tail of the pack, as well as OctoberTrek officials.

•

On Sunday the 16th, 23 members of the same club participated in an unannounced Simulated Emergency Test (SET). Reynolds Davis, K0GND, Lancaster County Emergency Coordinator, set off the auto-call alerts and began a net with check-ins at noon. Check-ins were not told what the situation was or what would be asked of them. Following check-ins, K0GND sent a "book" of traffic to each check-in which required a formal reply.

K0GND pointed out that the local ARES had been out on several storm watches during 1983, and had also assisted in a variety of public service events, so certain SET exercises would not be appropriate. He decided to focus on traffic handling as something that is important and often overlooked.

In addition to the official SET traffic, the State Civil Defense station, W0MAO, was manned both Saturday and Sunday by LARC ARES and picked up traffic from across Nebraska and surrounding states.

•

The following Sunday, 23 October, nine Lincoln ARC members provided communications for a fund-raising pledge bike-a-thon put on by the First Nebraska Chapter of the National Management Association. Proceeds from the 30-mile trip were to go to the Lancaster County Chapter of the American Red Cross.

Club members were assigned to each of the five checkpoints, while others traveled at the head and tail of the bikers. Communications were also provided to the race coordinator, who is now a true believer in Amateur Radio.

— Reynolds Davis, K0GND □

Tennis and Radio 'team up'

Some of the biggest stars in the Bellevue (Washington) City Junior Tennis Championships last July didn't swing rackets. Rather than manning courts, six East Side Amateur Radio operators manned microphones to keep the large tournament moving, allowing it to finish Sunday night, only a few hours late despite two rain delays.

The hams, organized by Bellevue's Bill Clarke, AI7N, were stationed at courts all over Bellevue. They radioed information to tournament headquarters at Robinswood Tennis Center, where Clarke had set up a base station.

"We coordinated players' arrivals, changes in scheduling, and court availability, and we radioed in match scores," explained Harriet Goldis, KB7KR, a Bellevue woman who was stationed at Interlake High School on Friday and Saturday and at East Gate Park on Sunday.

It was the first time such a radio network has been assembled for the tournament, but it probably won't be the last. The system worked so well in coordinating the 463 players, who used more than 50 courts at 13 sites, that tournament referee Dennis Higashiyama expects to employ it again next year.

Higashiyama noted that it "would have been very difficult" to finish the tournament on Sunday without the radios. How were they able to do it in previous years? "We prayed it wouldn't rain," he replied.

Other amateurs involved were Ed W7WYO; Bob Lawrence, W7GCJ; Richard Gibbs, KA7AEF; Jess Butler, WB7SWL; and Burton Grover, KC7UR.

—Journal American, Bellevue, WA; submitted by Bill Bingham, WA7VEH □

Dayton stages large disaster drill

Dayton area emergency services attempted what the newspapers called the largest civilian disaster drill ever held in the United States. The drill — held on 20 September 1983 — involved 30 area agencies, 10 hospitals and 1,000 people, including 450 students from the Montgomery County Joint Vocational School. The students acted out the roles of the injured, complete with makeup.

The emergency simulated was an aircraft crash into a rock concert. The crash was supposed to have injured hundreds, with additional injuries caused by noxious gases escaping from chemical tanks damaged by the crash.

Coordinator Dr. Andrew Bern, associate medical director at Good Samaritan Hospital, reported that it would take a year to completely evaluate the results. Among the more obvious problems: bus drivers transporting injured were unfamiliar with hospital locations and lack of information on where patients had been taken. One of the initial conclusions was that better communications were needed.

DARA was invited and did participate. Joe Moore, K8VAZ, had the van on site. A request for help put out on all the local repeaters only brought out nine amateurs: Ralph W8FPA and Frances LeGore, N8EHY; Lloyd Wendell, WA8LXW; James Orihood, WD8JCI; Mike Kilroy, AC8V; N8BGO; Francis Schwab, W8OK; John Landis, WA8GRO; and Charles Frye, KG8Q. W8DQK at the weather bureau helped with weather reports.

Joe said that while they had the nine operators on site, they really needed about 50. Ten others checked in via the repeaters, but the help was really needed at the vocational school. It is in situations like this that Amateur Radio can be of maximum service to the community. Joe reported the exercise was excellent practice, and hopes we can generate more interest if another drill is held.

—Dayton ARA, OH □

Police thank hams

Mr. Lawrence Austin, WA1QDN
Director
Lynnfield Civil Defense

On Thursday, 27 October, the Lynnfield (Massachusetts) Middle School sponsored a road race involving more than 500 students and teachers. The purpose of the race was to raise funds for a public park.

One of the difficulties in such an undertaking is to provide adequate communications along the race route. The safety of participants, spectators and motorists in the area is of prime concern and the major objective of police efforts in such a situation. The availability of instant radio communication at key points along the route ensures that proper emergency equipment may be quickly dispatched to the scene of an incident.

In order to supplement the communication system available to the local department, the Lynnfield Civil Defense was asked to provide Amateur Radio operators at key positions in the area. With Fred Lingel, K1CCW, acting as control station and Harold Carter, W1RZA; Gene Gutowski, W1PDH; Claude Cronburg, K1HDV; Wally Burnham, WA1GWO; and Paul Nichols, WA1ALF, operating on the 2-meter band, race progress could be monitored constantly.

Fortunately, no difficulties developed which required the presence of emergency equipment and personnel, but the police department was well prepared for an emergency situation with the courteous assistance of our local radio amateurs.

I wish to pass along my sincere thanks to your organization and more specifically the radio operators involved who volunteered their time and skills. The safety of students involved in the race and the administrative operation of the Lynnfield Police Department were greatly enhanced by their presence.

Respectfully,
DOUGLAS O. COONROD, KA1KIR
Sergeant
Lynnfield Police Department

●●●

Dear Mr. Graves:

With reference to our telephone conversation of last week, I would like to take this opportunity to thank the members of the Des Moines Radio Amateur Association for their assistance on 06 May 1983, when a tornado tore through the City of Pleasant Hill. As you know, the police communication center was knocked out of service and the police department was without communications. Within two hours, the members of the DMRAA was on the scene with the equipment and the expertise necessary to re-establish communication.

Since the May 6 tornado, the City of Pleasant Hill has designed and adopted a disaster plan, of which the DMRAA is a part of.

Unknown to the average citizen, the DMRAA provides much public service work. The organization is not just a group of people that meet once a month and play with radios. As any police department can tell you, the organization is a dedicated group of people with public safety in mind. For example: weather watching and reporting, providing emergency communications, and the manpower to assist local government officials in time of disaster.

If, at anytime, myself or the officers of this department can assist you, feel free to call us.

Sincerely,
Robert Woods
Chief of Police
—DMRAA, IA □

Barstow club proud of award

On 01 November, EC/RO Blynn Mueller, WD6BNG, accepted — on behalf of the Barstow ARC Emergency Services (ARES/RACES) — a commendation for meritorious service from the city of Barstow, California. This commendation was presented to thank us for our involvement, on 29 September, in the search for a 6-year-old kidnap victim. Copies of this award have been placed in the club history, as well as a copy to the secretary to be placed in club records. The commendation will be placed on permanent display at Barstow Fire Headquarters.

All members of the team can be proud of this document, and here's hoping that, as the years pass, our team will grow bigger and better and will continue to render valuable assistance to our community.

—Barstow ARC, CA □

Yaesu to supply equipment

Yaesu Musen Company, Ltd. and Yaesu Electronics Corporation are proud to announce that Yaesu has been selected as the "Special Supplier of Ham Radio Equipment for the Sarajevo 1984 Winter Olympic Games".

Yaesu, a world leader in communications equipment and accessories for amateur, commercial and consumer use, is pleased to participate in the 1984 Winter Olympics effort as a part of its ongoing commitment to improved communication throughout the world. In keeping with the Olympic spirit, Yaesu's participation at Sarajevo is helping to bring the people of the world closer together. □

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Check your license expiration date.

Ed Metzger, W9PRN, presents Bob Heil, K9EID, with a bronze plaque for his article on 10 meters FM. It was voted Best of the Year in *QST* by the League.

Heil's awards

Tania Miller, WB9TKC

On 12 April 1983, Bob Heil, K9EID, received two plaques and a certificate. The Marissa ARC, which he founded and is president of, was officially affiliated with the ARRL when Ed Metzger, W9PRN, signed the document at the dinner/meeting in Freeburg, Illinois.

Ed also presented Bob Heil with a bronze plaque for his article on 10 meters FM, voted the best article of the year by the League.

Rich Ridenour, KB0ZL, of GARA (Gateway Amateur Radio Association) — which K9EID also founded and of which he is a past president — presented Bob with a plaque in appreciation of his services there and in his Monday night Swap Net on the repeater, he (Bob) built and maintains. He also has the Westlink service repeated on this net. □

Thanks given to *Korea Times*

John Ruckert, WB6ZPN

An article with a photo of an Amateur Radio operator in a local foreign language newspaper revealed — after translation — that in the Los Angeles area at 9:00 p.m., on 145.565, is a Korean Language Net.

That night, my joining in was welcomed with everyone switching to English. I happened to mention that among my gear is a two-way UHF TV station.

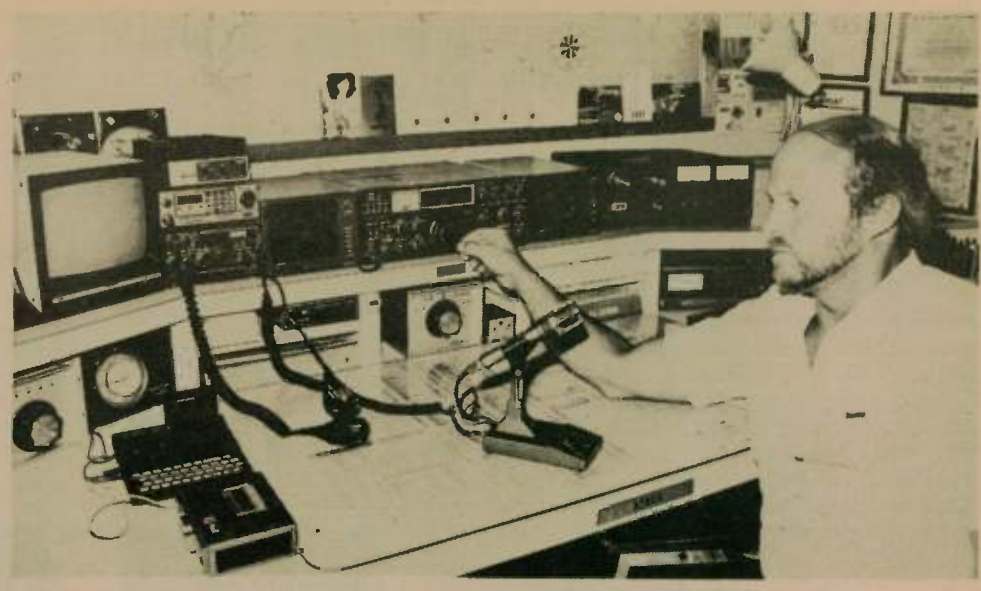
Thanks to the **Korea Times** article, one of the net members was personally assisted in receiving ham-TV operators in color on his own set at no cost.

What started with a still photo may become a live video net! □

STATION APPEARANCE

Brian Nielson, N7BES, of Pasco, Washington, wins the Station Appearance for this month.

Brian says he is very active with amateur satellites. He is a member of AMSAT, International DX Foundation, Northern California DX Foundation, Western Washington DX Club, and the Tri-City ARC, of which he has been president for four years. He's also an active member of ARRL, with emergencies and services. Awards he's achieved include WAS, WAC, WAZ and DXCC (260+).



The equipment you see here, from left to right, are: Kenwood HC-10 computer clock; Timex Sinclair 1000 for tracking satellites with USI video monitor; Kenwood TR-9130 all-mode transceiver with Mirage B3016 160 watt amplifier; Kenwood TR7950 FM rig; Kenwood TS-930S HF transceiver; phone patch dual speaker system and Dentron MLA-2500 HF amplifier for the DX'ing end of it.

The antenna is a 6-element tri-band Yagi (KT34XA) at 80 feet, with a 20-element Cushcraft "twist" antenna for satellite uplink communications. Also, a 40-meter rotatable dipole at 85 feet, by KLM. □

Leaving Ecuador

Quito, Ecuador
South America
07 December 1983

Dear Friends,

We have just concluded operation as W6QL/HC1 in Quito, Ecuador. We made nearly 5,000 QSO's with amateurs in 120 countries, working all bands — phone and CW.

Quito is located on the equator, but it is very high in the Andes Mountains. From our operating position, we can see several snow-capped volcanoes. There have been two earthquakes while we have been here; they were strong enough to rock the operating table. We had our pictures taken with one foot in the Northern Hemisphere (north of the equator) and the other foot in the Southern Hemisphere.

We went to our first bullfight here. There were several thousand people attending the fight, which is something everyone should see at least once.

Both here and in Colombia, the major Amateur Radio clubs hold meetings every week, which is something that is not often done in the USA. The Quito ARC is a very active organization with one of the finest buildings and antenna sites anywhere.

Our next operation will be in the Galapagos Islands. We already have our licenses, and our call is W6KG/HC8.

LLOYD COLVIN, W6KG
IRIS COLVIN, W6QL □

Please send news and pictures to Worldradio

QUARTER CENTURY WIRELESS ASSOCIATION INC.

Esther Given, W6BDE

Plaques will be awarded to the leaders of each QSO party. Certificates will be sent to the next nine high contestants in each of the parties. For further information, consult the winter 1983 issue of *QCWA News*, page 102.

Kosher hams in Israel

4Z4SV is the call of the new Amateur Radio Centre in the Shoresh Village Hotel in Jerusalem. The new station is made available to all visiting amateurs from around the world, enabling them to contact anyone they wish while in Israel. QCWA'er Zvi "Ozzie" Osrin, 4X4CW, Israel's first licensed ham, was given the honor of sending out the first "CQ" at the dedication of 4Z4SV.

Ozzie served in South Africa's Air Force in WWII and in the fledgling Israel Air Force in 1949, at which time he became Israel's #1 licensed amateur. Initiator of the club project was Alon Tavor, 4Z4ZB, license holder since he was 10 years old and a disabled veteran of the Sinai battlefield where he lost an eye and a leg in 1975. Alon now works with handicapped children. He has formed a ham club for them and trains them toward becoming Amateur Radio licensees.

The dedication of 4Z4SV at the Shoresh was also attended by Joe Marsey, N2JM, of Rochester, New York, now retired in Israel; Joe Kasser, G3ZCZ, a recent immigrant; Ron Ronen, G4GKO, a well-known telecommunications expert and QCWA's ambassador to Israel; and Joe Bonnett, W5III, of Dallas, Texas. □

ED: As many of our readers may have noticed, the QCWA column has recently appeared once again in the pages of ***Worldradio****. We'd like to welcome the new QCWA columnist — Esther Given, W6BDE.*

QCWA's 27th annual QSO parties are scheduled for early spring. The CW portion begins 0001 UTC, Saturday, 11 February, and ends 2000 UTC, Sunday, 12 February. A month later, the phone portion will commence at 0001 UTC Saturday, 10 March, and conclude at 2000 UTC, Sunday, 11 March.

QCWA's QSO Party idea was originated by Stan Belliveau, W7AYO, in 1957. Originally, it was a fun get-together. There were only seven QCWA chapters, two of which were less than a month old. Stan was aided in the promotion and success of that first QCWA QSO Party by Doc Spike, W7OW and Charles Emigh, W7ER. It was considered a rewarding achievement and has been conducted annually ever since, with members showing tremendous interest in this amicable reunion.

The 1984 official rules are very simple. QCWA members will exchange contact numbers, names, calls and the name or number of contact's QCWA chapter. Those who do not have chapter affiliation will use the letters AL (at large) in place of chapter identification. Scoring will be the total number of contacts times the total of different chapters represented. The same station may be worked on each band; however, the chapter identification (multiplier) is counted only once, regardless of band contacts. There are currently 146 QCWA chapters.

Contacts may be made on 80, 75, 40, 20, 15 and 10-meter bands. The following frequencies have been suggested as good hunting grounds: *CW* — 3530, 3560, 7030, 7060, 14030, 14060, 21040, 21070, 28040 and 28070; *SSB* — 3900, 3930, 7230, 7260, 14280, 14310, 21350, 21380, 28600 and 28630. Spin the dial, though, and look around elsewhere within the bands.

Information exchanges for logging purposes must show contact numbers exchanged, contact's handle, call and chapter number. In addition, QTH or other information may be useful at a later date for certificate hunters. The contact numbers given out should be kept consecutively, no matter what band is used.

Logs for each of the QSO parties should be kept and mailed separately. It is suggested that a separate sheet be used for each band worked and that no more than 25 entries be made per sheet. Competitor's total score (contacts *TIMES* number of different QCWA chapters represented) should appear on the first page. Scorekeepers for the 1984 QSO party are volunteers from the QCWA Pelican Chapter in Florida.

Logs should be mailed by 31 March 1984. Send to: *CW LOGS* — Buck Lewis, W4BV, 835-119th Ave., Treasure Island, FL 33706; *SSB LOGS* — Jack Mandel, W4PLW, 4301-11th Ave. N., St. Petersburg, FL 33713.

DX WORLD

John F.W. Minke III, N6JM
6230 Rio Bonito Drive Carmichael, CA 95608

Activities Calendar

27-29 January	CQ World Wide DX 160M Contest (CW)
28-29 January	REF French Contest (CW)
11-12 February	VERON PACC Contest
18-19 February	ARRL DX Competition (CW)
24-26 February	CQ World Wide DX 160M Contest (SSB)
03-04 March	ARRL DX Competition (SSB)
17-18 March	Bermuda Contest
24-25 March	CQ WPX DX Contest (SSB)

W-100-N
221. W1ZW Philip K. Baldwin
222. K6MA Stan L. Kuhl

Laccadives (VU7)

A last-minute DXpedition was scheduled the latter part of December to the Laccadive Islands. This was to be an all-Indian crew, including active operators K. Asutoshan, VU2BBJ, and Vasant Bhatt, VU2RX. The call assigned to the group was VU7WCY and was good through the end of the year. The scheduled start date was 15 December, but as of this writing, nothing had been heard.

International DX Convention

Plan ahead for the annual International DX Convention to be held at the Holiday Inn in Visalia, California. This is the big event that is hosted by the Northern and Southern California DX Clubs, with this year the southern club running the show. See page 1 of this issue of Worldradio for details.

Wake Island (KH9)

KE4UX/KH9 continues to satisfy the need for Wake Island and has been worked on 21.355 MHz after 1900 UTC into the East Coast. The station has also been reported working Europeans on 21.260 MHz around 0730 UTC.

Another station has been reported on Wake Island, that being KH9AA. No other information is available.

Greenland (OX)

A few stations have been reported from this North American spot. Look for OX3SG. He has been active on at least two different bands, as he has been reported on 14.211 MHz at 2100 UTC and 21.275 MHz around 1400 UTC.

Also, take a listen for OX3JF, who has been found on 40 meters near 7.083 MHz from 1000 UTC working the West Coast. Another 40-meter type is OX3MV, who has been reported working Europeans on the low end on 7.004 MHz from 2130 UTC.

On 20 meters, OX3UD has been active on CW near 14.020 MHz from 2100 UTC and on 80 meters; one of the WCY calls, OX4WCY, has been busy on 3.505 MHz around 0300 UTC.

Egypt (SU1)

Of all the newsletters we receive (*The Long Island DX Bulletin, The DX Bulletin* and *DX News Sheet*), only one report on a station in Egypt has been reported. Look for SU1RK on 40 meters near 7.045 MHz after 2100 UTC.

Mali (TZ)

The same applies for this one also. Look for TZ6FIC, who has been reported on 28.533 MHz at 1400 UTC.

Tanzania (5H3)

5H3WCY has been reported very active on all bands, both modes, and also active during the recent CQ World Wide DX Contest. This station and also the 22 November to 06 December operation of 5H3BH was due to the efforts of Leif Lundin, SM0AJU, and Jan Hallenberg, SM0DJZ. QSL cards for this operation go to SM0DJZ, Siriusgatan 106, S-19500 Mersta, SWEDEN. Contacts with 5H3BH made during the periods other than the above should have QSL cards sent via Bjorn Humble, SM0EAI, Bollnesb 30, S-16223 Vellingby, SWEDEN.

Also active from Tanzania is 5H3KG, busy on 75 meters on 3.790 MHz from 2200 UTC, and 5H3MI, reported on 21.268 MHz around 2000 UTC.

Syria (YK)

Look for YK1AO, who has been reported on at least two bands. On 20 meters, he has been worked on 14.223 MHz around 1500 UTC, and on 80 meters he has been working Europeans near 3.640 MHz from 2200 UTC.

Tristan da Cunha (ZD9)

Several calls have been reported active from Tristan da Cunha. ZD9BV hangs out near 14.219 MHz and has been reported at 0745 and 1845 UTC.

Fifteen meters is a popular band, especially near 21.335 MHz, as ZD9BZ, ZD9CA and ZD9CS all have been reported on from 1900 UTC. ZD9CC also appears on this frequency, plus 14.235 MHz from 2100 UTC.

Kermadec (ZL8)

It has been reported that Jim Smith, VK9NS, has been denied permission to

visit Kermadec next year. As he had previously been granted permission, Jim phoned the New Zealand authorities to find out why they had changed their minds. It seems that the NZART (New Zealand counterpart of the ARRL) had suggested it would be preferable if the DXpedition were led by New Zealanders, as the operation would generate a lot of publicity. Jim Smith, if you remember, was one of the two groups that went to Heard Island last year.

We hope that with the New Zealanders running the show, it will be better than a previous one where Kermadec was perfectly readable, but we couldn't read the list-taker in New Zealand.

The Zombie's Revenge

Jack Bock, K7ZR, is one of the Trustees of the Western Washington DX Club and also a contributor to the *Totem Tabloid*, the club's monthly newsletter. His column, 'The Zombie's Revenge' is always interesting reading, and I would like to pass on to you his comments regarding the recent Malpelo DXpedition.

Nightmare Alex sweated through the Malpelo operation like a condemned cop-killer waiting for a phone call from the governor. But the reprieve — the prayed-for helicopter trip up the mountain — never came. Consequently, this year's HK0TU operation was just as excruciatingly painful to work as previous operations from the rock.

On the first day, a few of the stupendously huge guns got through from the great Northwest. On the second day, some of the regular DXers with only a few KW and towers at around 100 feet managed to make it. But on the third day, Malpelo's signals virtually disappeared. Panic clutched the hearts of little pistols with only 1kW amps and tribanders at 40 feet as the signal bobbed above and below the white noise through most of Saturday.

Nightmare Alex, realizing that the gods needed help, fashioned a model of Malpelo using pebbles smuggled in on a Colombian Mary Jane boat. At about 2230Z on the 15th, the graven image was ready. Alex plunged a long, Chinese Army surplus acupuncture needle into the doll's southern hemisphere. With a yelp, the signal leaped up out of the noise on 28.025 MHz.

The rest is history. Propagation swung to the Puget Sound area for a precious 30 minutes. Almost a dozen locals snuck under the wire in that single opening. As all West Coasters know, one half-hour opening out of a five-day operation is about our usual ration. By the next afternoon, Malpelo (and the hopes of the "barefoot transceiver to a dipole" crowd) were only memories.

The Big Cookie Report

The following report is also from the Western Washington DX Club's newsletter, detailing Tom Wong's recent trip to China, where he operated SSB from

Here is the gang which handled the CW end of the operation, making one-third of the contacts with only the one station (out of four running simultaneously). Writing on the tent they used reads: "Malpelo Hilton, VIP Only, Phonepatchers not allowed." From left to right: HK1DBO, HK1QQ, HK1AMW/WB3AOP and HK3BAE. ***(Photo courtesy of Fred Laun, K3ZO)***

Here is the whole HK0TU Malpelo gang, seated around the plaques left by previous expeditions. From left to right: Alberto Carrizosa, HK3BAE; Eduardo Londoño, HK4BHC; Alfonso González, HK1DBO; Oscar Campillo, HK4DUM; Carlos Alvarez, HK8BYG; Julián Uribe, HK5LA; Gustavo Cuartas, HK4COK; Arturo Afanador, HK3BED; Herman Olarte, HK1QQ (front); Bolmar Aguilar, HK1AMW; Enrique Bernal, HK3BAV; Jaime Restrepo, HK2YO; and Edilberto Rojas, HK3DDD. A total of exactly 20,535 contacts were logged at HK0TU, 7,600 on CW. ***(Photo courtesy of Fred Laun, K3ZO)***

BY1PK. All QSL cards for Tom's operation may be sent to him: Tom Wong, VE7BC, 220 Grosvenor Ave., Burnaby 2, B.C., V5B 1J4 CANADA. Be sure to provide an SAE with funds or an SASE with Canadian postage. (It requires 37 cents for a return.) Tom reports:

"Over 1,300 QSO's were made on SSB, three-quarters of them with North America. This despite propagation conditions that made W/VE signals much weaker than those out of Europe — not to mention the JA's which were easily 3 to 4 'S' units stronger than the loudest North Americans."

Voice operations from Beijing may not show again until April 1984. There are no English-capable operators at BY1PK at present. It is possible that some other foreign operators may be able to get permission to operate, but Tom knows of nothing like that in the works before April. CW operations probably will continue much as before.

The BY4AA SSB activity was a joint Yokohama/Shanghai club operation. (Yokohama and Shanghai are sister cities.) Apparently it was limited to one day and seemed to work mostly JA's. Tom says not to expect another SSB operation from there for a while, although the station may be active on CW from time to time.

OM Tom was plagued by a frequency instability in the transceiver at BY1PK. Sometimes he would try to tune his receive frequency with one VFO, and the other VFO would jump a kilohertz or so. When that happened, the station being answered often couldn't hear him come back. Frustration for all.

Hearing problems also plagued the Beijing crew as the rig's audio system was overloaded by large numbers of earphones, (many of them embedded in World War II vintage flyer's helmets), all paralleled across the output. Hopefully, these troubles will be fixed — or another rig obtained — before the next big operation. More bad luck when a capacitor arc in the 3kW linear forced Tom to run at 500 watts instead of full bore. A remedy is being sought for that problem, as well.

Tom emphasizes that he did not run a "list" operation. However, he did work some North American stations on schedule on 14.345 MHz. Those were individuals who had somehow helped the BY1PK operation along and had been alerted that Tom would be listening for them up on that frequency. Tom knew who he was looking for, and worked about a dozen stations that way.

As everyone must be aware, for many years, certain amateurs in the United States and Canada have contributed in various ways to getting China back on the air. Sometimes Tom would hear such a station calling and would make a special effort to give him a contact. Occasionally, this would happen while Tom was going "by the numbers" and the deserving contributor would be in the wrong call area. The inevitable would happen, and Tom accepts the rap for the mayhem that resulted — but he feels he had no choice under the circumstances. After all, it was Tom who was the one who had to face that howling screaming mob!

And, in *DX News Sheet*, commenting on the recent Japanese operation from BY1PK that they were interested in working only other Japanese stations even though the bands were open into Europe, "It looks as though we need a European operator to go there."

160 meters

Amateurs in Portugal, the Azores and Madeira are now allowed 160 meters. Look for such stations as CT1AAZ, CT2AK or CT4BV in the 1830 to 1850 kHz slot.

In addition to the above stations, many DX stations have been reported on the top band. Frequencies are in kilohertz and times are UTC, with most reports from stations on the East Coast.

CT1AOZ	1837	0100
EA3SF	1821	0400
EA8AU	1833	0500
FC9VN	1851	0600
FG7AM	1824	0400
FG7AN	1830	0300
FR0FLO	1825	0200
GD4BEG	1857	0700
GM3YOR	1834	2400
GM3ZSP	1840	2400
GU3YDX	1829	0700
HH2MC	1829	0400

(*please turn to page 24*)

1.2 GHz!

NEW!

Explore the world of 1200 MHz FM with ICOM's new IC-120 Mobile!

Now you can move out of the crowded 144 and 440 MHz bands into the wide spectrum of 1200 MHz because ICOM gives you the opportunity to explore the spectrum from 1260 to 1300 MHz . . . 40 MHz . . . with all the features found on popular 2 meter and 440 MHz rigs plus some:

Memories. Six memory channels plus 2 VFO's provide storage of most used frequencies in this wide band. Each memory allows memory of frequency, offset direction, offset frequency, and tone encoder frequency. Internal memory backup available.

Scanning. Scan the memories, scan all 40 MHz or program a segment to be scanned. All scanning has the option of scanning for a busy or open channel.

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3 Tuning Rates. Tuning increments of 10 KHz, 20 KHz or 1 MHz are available for rapid or slow tuning of the band.

RIT. RIT on FM? Yes, ±5 KHz on either side of the transmit frequency allows you to tune signals offset from yours.

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The ICOM IC-120 gives you all of this plus a very quiet PLL circuit, with excellent signal to noise ratio, high sensitivity and a stabilized power amplifier to provide full power over its temperature and voltage ranges, and the IC-120 is small, only 2"H x 5½"W x 8⅛"D.

NEW 1.2 GHz Repeater

Complete your system with the IC-RP1210 repeater.

- PLL frequency selection (198 channel, 10 KHz steps, DIP switch)
- High stability PLL (0.5PPM/-30° to +60°C)
- Repeater access via CTCSS
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ICOM

The World System

ICOM America, Inc., 2112-116th Ave NE, Bellevue, WA 98004 **(206)454-8155** / 3331 Towerwood Drive, Suite 307, Dallas, TX 75234 **(214)620-2780**

All stated specifications are approximate and subject to change without notice or obligation. All ICOM radios significantly exceed FCC regulations limiting spurious emissions.

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The New Standard of Comparison

NEW Competition Grade Transceiver!

ICOM is proud to announce the most advanced amateur transceiver in communications history. Based on ICOM's proven high technology and wide dynamic range HF receiver designs, the IC-751 is a competition grade ham receiver, a 100KHz to 30 MHz continuous tuning general coverage receiver, and a full featured all mode solid state ham band transmitter, that covers all the new WARC bands. And with the optional internal AC power supply, it becomes one compact, portable/field day package.

Receiver. Utilizing an ICOM developed J-FET DBM, the IC-751 has a 105dB dynamic range. The 70.4515MHz first IF virtually eliminates spurious responses, and a high gain 9.0115MHz second IF, with ICOM's PBT system, gives the ultimate in selectivity. A deep IF notch filter, adjustable AGC and noise blanker (can be adjusted to eliminate the woodpecker), audio tone control, plus RIT with separate readout provides easy-to-adjust, clear reception even in the presence of strong QRM or high noise levels. A low noise receiver preamp provides exceptional reception sensitivity as required.

Transmitter. The transmitter features high reliability 2SC2904 transistors in a low IMD (-38dB @ 100W), full 100% duty cycle (internal cooling fan standard), 12 volt DC design. Quiet relay selection of transmitter LPF's, transmit audio tone control, monitor circuit (to monitor your own CW or SSB signal), XIT, and a high performance speech processor enhance the IC-751 transmitter's operation. For the CW operator, semi break-in or full QSK is provided for smooth, fast break-in keying.

Dual VFO. Dual VFO's controlled by a large tuning knob provide easy access to split frequencies used in DX operation. Normal tuning rate is in 10Hz increments and increasing the speed of rotation of the main tuning knob shifts the tuning to 50Hz increments automatically. Pushing the tuning speed button gives 1KHz tuning. Digital outputs are available for computer control of the transceiver frequency and functions, and for a synthesized voice frequency readout.

32 Memories. Thirty two tunable memories are provided to store mode, VFO, and frequency, and the CPU is backed by an internal lithium memory backup battery to maintain the memories for up to seven years. Scanning of frequencies, memories and bands are possible from the unit, or from the HM12 scanning microphone. In the Mode S mode, only those memories with a particular mode are scanned; others are bypassed. Data may be transferred between VFO's, from VFO to memories, or from memories to VFO.

Standard Features. All of the above features plus FM unit, high shape factor FL44A, 455 Khz SSB filter, full function metering, SSB and FM squelch, convenient large controls, a large selection of plug-in filters, and a new high visibility multi-color flourescent display that shows frequency in white, and other functions in white or red, make the IC-751 your best choice for a superior grade HF base transceiver.

Options. External frequency controller, external PS15 power supply, voice synthesizer, computer interface, internal power supply, high stability reference crystal (less than ±10Hz after 1 hour), HM12 hand mic, desk mic, filter options:

SSB: FL70
CWN: FL52A, FL53A, FL32, FL63
AM: FL33

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The World System

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DX World

(continued from page 21)

HH2VP	1824	0600
HK1AMW	1833	0900
KG4CD	1823	0100
LU9EIE	1826	0600
OE5KE	1835	0500
OK2PGU	1834	0500
OZ1LO	1835	0600
OZ7JZ	1833	0200
PA0HIP	1827	0400
PY1ARS	1832	0600
RQ2WCY	1831	0500
SM7BIC	1832	0400
SP1ADM	1831	0300
UA2FCW	1851	0500
UK2BMO	1853	0500
UP2BMF	1858	0500
UK2GAB	1853	0500
UK2GAB	1853	0500
UK5WAZ	1851	0500
VP9BO	1833	0100
VS6DO	1812	1100
Y39XO	1833	2200
YV1OB	1836	2300
ZB2EO	1822	2200
ZL1AH	1832	0600
3V8AS	1835	2100
4K1ANT	1833	0400
5N8ARY	1826	0600

In addition, these stations have been working into Europe.

CU4LN	1832	0700
HZ1AB	1841	2300
SV5OX	1833	2200
T77V	1837	2100
VP2KBZ	1805	0200
VU2FX	1827	2300
9H1CG	1830	2400

WCY calls

The following is a list of those World Communications Year 1983 calls that have recently been on the bands. The calls adjacent to the WCY calls are the QSL routes that were known for those calls.

DF0WCY		TA2WCY	—DJ0UJ
DK1WCY	—DF1LX	TS8WCY	—IS0LYN
DK3WCY		VE3WCY	—VE3GCO
ED3WCY	—EA3CTI	VK9WCY	—VK9NS
EH3WCY	—EA3AH	ZK9WCY	—ZK2NU
GB2WCY	—G3XEP	ZL6WCY	
GB0WCY	—GD3KHE	ZL7WCY	—ZL2AFT
LZ0WCY		ZL9WCY	
OK0WCY	—OK1KSO	ZS6WCY	—ZS6TJ
OX4WCY		4N1WCY	—YU1AHI
OZ1WCY	—OZ1CFV	4N7WCY	
OZ9WCY	—OZ3QN	4O1WCY	—YU1FJK
RC2WCY	—UK2AAG	4O2WCY	—YU2DX
RD6WCY	—UK6DAA	4O3WCY	—YU3ER
RG6WCY		4O5WCY	
RJ8WCY	—UJ8JCQ	4O7WCY	—YU7GMN
RL7WCY		4O0WCY	—YU5GBC
RO5WCY	—UK5OAA	4T4WCY	—Yasme
RP2WCY	—UK2BBB	4X4WCY	—4X4AT
RQ2WCY	—UK2GAB	4X6WCY	—4X6DW
RR2WCY	—UK2RAN	4Z4WCY	—4Z4KX
RT5WCY	—UK5MAF	5H3WCY	—SM0DJZ
RV3WCY		5N1WCY	—5N8ARY
RV4WCY	—UK4FAV	5N6WCY	—K6EDV
RV6WCY	—UK6LAA	5N8WCY	
RV9WCY	—UK9CAA	6U1WCY	—DF7ZH
RV0WCY	—UK0AMM	8N1WCY	—JA1RL
SP8WCY			

Where no route is given, the bureau in that case may be used.

75 meters

With the coming change in the sunspot cycle, there will be an increase in DX'ing on the lower bands, including 75 meters. This band has always been a popular band with amateurs, although it wasn't used much as a DXers band. Then came SSB — a tremendous improvement over the old AM used about 25 years ago. There is DX there on 75 to work — the only catch is that most of it is below 3.800 MHz.

Many reports of DX on this band have been reported and to give you an idea of what is there, take a look at the following:

CO6AR	3.778	0400
CT2AK	3.794	0200
EA8ADP	3.794	2300
PZ1DF	3.799	0300
VK9NS	3.798	1200
VS6DO	3.796	1200
VU2LE	3.795	2400
3A2EE	3.799	2400
3V8AS	3.800	0400
7X5AB	3.800	0400

Of course, frequencies are in megahertz with times in UTC. Most of the above are reported by DXers living on the East Coast.

DXers in Kansas City report several interesting calls such as:

JY8RF	3.775	0150
TU2NW	3.793	0240
YJ8RG	3.793	0800
A22BW	3.793	0400
TR8IG	3.794	0250
FR0FLO	3.792	0200
GJ3YHU	3.793	0200

Clubs

The Central Arizona DX Association has elected their 1984 officers with Mike Fulcher, KC7V, as president; Gary Elliott, K7OX, as vice president; Jim McDonald, N7US, as secretary; and Hal Beebe, W9RY, as treasurer.

The club's repeater, ND7O, is on 147.930/147.330 MHz in the Scottsdale area.

Add to your list of DX clubs (see January 1983 **Worldradio**, page 22) the Desert Rats DX Club, another group in Arizona. Sanford H. Cole, K1SC, is their president. Mailing address for this club is P.O. Box DX, Sierra Vista, AZ 85635.

10-meter beacons

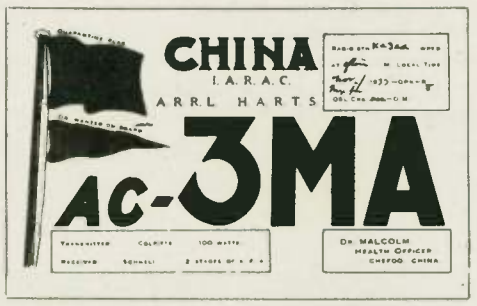
Thanks to Al Lotze, W6RQ, and the Northern California DX Club's newsletter, *The DXer*, for the following list of 10-meter beacons. The frequencies are in kilohertz.

28202.5	—ZS5VHF	28252.5	—VE3TEN
28205.0	—DL0IGI	28255.0	—LU1UG
28207.5	—WD4HES	28257.5	—DK0TE
28209.0	—WA1IOB/B	28260.0	—VK5WI
28210.0	—3B8MS	28265.5	—VK5WI
28215.0	—GB3SX	28265.0	—PY2EXD
28215.0	—ZD9GI	28270.0	—ZS6PW
28217.5	—VE2TEN	28272.5	—TU2ABJ
28220.0	—5B4CY	28277.5	—DF0AAB
28222.5	—HB2BHA	28280.0	—YV5AYV
28225.0	—VE8AA	28284.0	—KA1YE/B
28227.5	—EA6AU	28285.0	—VU2BCN
28230.0	—ZL2MHF	28285.0	—VP8ADE
28235.0	—VP8BA	28290.0	—VS6TEN
282237.5	—LA5TEN	28293.5	—LU2FFV
28240.0	—OA4CK	28295.0	—W3VD/B
28240.0	—KA9NEF	28299.0	—PY2AMI
28245.0	—A91C	28302.5	—ZS1STB
28247.0	—ZS1CTB	28315.0	—ZS6DN
28250.0	—Z21ANB	28325.0	—DF0THD

The International Coordinator for the 10-meter beacons is A. Taylor, G3DME. And, to satisfy my curiosity, this DX editor took a listen for them (mid-day and mid-week). I only heard KA1YE/B, W3VD/B and PY2AMI. As for the others, there was no propagation or they were not activated.

Antique QSL Department

This month's oldies were submitted by Fred Elser, KH6CZ, who has provided many of these old-time cards in the past.



The first card is another pre-war card from China. AC3MA was the call used by a Dr. Malcolm in Chefoo. Fred worked this station while he was operating from the Philippines as KA3AA on 01 November 1933. That "AC" prefix most likely was a carry-over from the days before the international prefixes were established. The letter "A" signified Asia, and "C" was for China.

Fred had been operating from the Philippines for quite some time. The next QSL was for a contact he made on 27 September 1926 with F.8MB of Casablanca. The operator was Lucien Bensimhon. Fred was using the call PI3AA at that time.

QSL routes

A221T	—DF8LY	EM6F	—UF6FFF
A24WF	—DJ2ZM	EM6FCR	—UF6CR
A35SM	—WB7OVA	F6HIX/HB0	—F6EYS
A92DQ	—K2IJL	F0AOJ/FC	—HB9ASZ
C6ABC	—KZ4C	F0OV/FC	—HB9BEI
C30AAE	—DF6IC	FB8WJ	—F8RV
C30AAN	—DL8OH	FB8ZQ	—F6GXB
C30AJA	—DF2WB	FH0GA	—N6ZV
C30LPA	—DL9KAF	FK0AQ	—F2BS
C30LY	—DJ9ZB	FM7CD	—W3HNK
C30XB	—EA3ALC	FM7WD	—W3HNK
CE0FCM	—WB6WOD	FM0HOR	—K6YRA
CN8ES	—WA3NCP	FM0HVL	—F6AJA
CN9CL	—DL0OI	FM0XX	—AA6AA
CN9CM	—DL0OI	FO8DF	—WB6GFJ
CN9CN	—DL0OI	FO8DH	—F6BXL
CN9CP	—DL0OI	FO8FO	—F2BS
CO7AM	—WB6QPG	FO8HI	—WB6GFJ
CR7UW	—CT4UW	FO8HL	—WB6GFJ
CR9G	—PA0GMM	FO8HO	—WB6GFJ
CS2CR	—CT2CR	FO8JP	—F1BBD
CT1AIU	—N6RO	FO0FB	—WB6GFJ
CT2EE	—WA7GXD	FP0HOQ	—NS4M
CT2EV	—WA3HUP	FP0HZC	—W6OKX
CT2FH	—W4JVU	FR7DB	—F6HMA
CU6UA	—W3HNK	FR0GA	—N6ZV
CX4CC	—W3HNK	FR0HRP	—KC8A
CY0SPI	—VE1ASJ	FY7YE	—W5JLU
DF3NZ/ST2	—DL Buro	FY0HIG	—DK5GB
DJ3XD/HB0	—DJ3XD	G3OLU/SV5	—G3OLU
DL1VU/KC6	—DB5UJ	G4CTQ/ST2	—G4CTQ
DL2VK/5N0	—DF9FM	G4MLM/OY	—G5YC
DL3FAF/6W8	—DL Buro	G4SAR/OY	—G5YC
DL5DAB/3X	—DL1QD	G5YC/OY	—G5YC
DU1MEL	—K9MD	GB1BOY	—G4AAL
EA8ZI	—SM5IWC	GD4UFB	—DK9ZL
ED9CM	—EA9IE	GU5ENK	—ON7WH
EH3ITU	—EA3AH	HB0AON	—DJ2YE
EL2AL	—KW9Z	HB0BHA	—HB9BHA
EL2BA	—WA2DHF	HB0BNP	—HB9BNP
EL2BE	—KB9UV	HB0NL	—HB9NL
EL0AP/MM	—JH4NPP	HC1SK	—SM6DYK
EL0BE/MM	—YU3DTN	HD8GI	—W3HNK
EM5D	—UK5KAA	HH2VR	—KA5V
		HH2WL	—KM7Z

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 Bill Welsh, W6LS, 2814 Empire, Burbank, CA 91504. Each request should be accompanied by a self-addressed stamped (54¢) envelope at least 9" × 11½".

MARCH 1984

UTC	AFRI	ASIA	OCEA	EURO	SO AM
0100	24.8	31.3	34.2	13.1	27.7
0200	19.0	29.0	34.6	12.5	24.0
0300	14.6	26.1	31.2	11.3	20.6
0400	16.6	23.1	27.7	10.2	18.4
0500	14.7	20.1	24.7	10.2	17.7
0600	13.6	17.4	22.4	11.9	17.7
0700	13.1	15.6	21.0	12.7	17.6
0800	12.6	14.7	20.2	12.7	15.0
0900	11.8	14.5	19.3	12.4	13.9
1000	10.9	14.8	18.4	11.9	16.7
1100	10.6	14.9	17.7	12.2	14.8
1200	11.5	14.3	16.4	11.5	14.2
1300	13.7	13.4	14.5	12.9	16.9
1400	17.0	14.0	14.3	16.0	22.0
1500	20.3	17.0	18.3	19.7	26.5
1600	22.9	17.5	20.0	22.8	29.1
1700	24.6	17.0	18.2	23.7	30.5
1800	26.0	16.4	16.7	21.7	31.6
1900	27.1	16.9	18.1	19.3	32.6
2000	28.0	19.9	22.8	18.2	33.2
2100	28.3	25.1	27.8	16.0	33.3
2200	28.5	30.2	30.7	14.5	32.6
2300	28.4	32.1	32.0	13.7	31.0
2400	27.5	32.2	33.1	13.3	28.9

HK0BKX	—WB4QFH	TU2NW	—AK3F
HK0TU	—HK3DDD	U3LKG	—UK3LAC
HL9AH	—N5CAB	UK9OAA	
HL9BS	—WD5EPX	U8D	—UA9OBJ
HL9TA	—K0LST	V2AS	—OE3ALW
HP3JRP	—K4WVX	V2AU	—OE3ALW
HT9TM	—K2TV	V3C	—N5DDV
HZ1AB	—K5PVD	V3EQ	—N6ADI
I1WXY/IA5	—I1VRO	V30AA	—N6ADI
I2BVS/BV	—I2MQP	VE8MA	—VE4TZ
I2MQP/BV	—I2MQP	VP2KBH	—K8EFS
I2NYN/BV	—I2MQP	VP2KBI	—K8EFS
I8UDB/ID8	—I8UDB	VP2KBJ	—K8EFS
IK4CZF	—I4ADS	VP2KBZ	—VE3KZ
IU0ITU	—I0YKN	VP2KD	—WA6ZEF
J28AZ	—I8JN	VP2KM	—WA2ZEF
J28DM	—F6GYU	VP2MB	—W8STI
J37AJ	—W2KF	VP2VD	—VP2VDK
J73D	—W2OB	VP2VDQ	—AI5P
J88AQ	—W2MIG	VP2VEG	—W0DVZ
JD1BBR	—JA7AGO	VP8AEN	—GM3ITN
JT1BG	—W7PHO	VP8ASG	—G4ERU
JX6BXX	—LA7JO	VP9JT	—W4EV
JX6RE	—LA6RE	VP9KA	—W1BPM
JX9VCA	—LA7JO	VQ9EA	—WB8KYT
JY5SK	—N4HCW	VQ9FZ	—W5YLP
JY8RF	—N5AU	VQ9JD	—N6AFD
K1EFI/VP9	—K1EFI	VS6DQ	—HB9AQZ
K2BDY/DU7	—K4PT	VS6GZ	—OE1HGC
K4CXY/6Y5	—K4CXY	VS6JB	—W2TK
K4IF/KV4	—W4KA	VU8AJG	—VU2AID
K4JPD/C6A	—K4JPD	VU8AJ	—VU2AJ
KA4BFT/HP1	—KA4BFT	VU3VTM	—VU2BGS
KC2CS/J6L	—KC2CS	W1AEL/PJ4	—W1AEL
KC4AAA	—K9AUB	W6KG/HK0	—Yasme
KC7UU/5N6	—K6EDV	W6SZN/A4	—W6SZN
KC6IN	—JA6BSM	W6SZN/T12	—W6SZN
KC6GM	—WD6BDZ	XU1KC	—JA1HQG
KD7P/KH2	—KS7L	XU1SS	—JA1HQG
KF6MA/DU2	—KF6MA	XU1YL	—JA1HQG
KX6AJ	—WB6NKV	YB5AQD	—YB5AEW
KX6OH	—N6ABW	YJ0AWG	—AJ1L
LA2WW/9L1	—N0AFW	YN4RCD	—WB8SSR
LU1ZA	—LU2CN	YS9EW	—I0WDX
N2EDQ/KH7	—KH6JEB	YS9RVE	—WA0JYJ
N5DNX/KH2	—N5FG	YW5A	—YV5ECY
N6SF/6Y0	—N6SF	ZD7HH	—W4FRU
NP4Z	—WP4CCY	ZD9BV	—W4FRU
OA4SS	—KB6J	ZF2HF	—KM5R
OD5LF	—F6KGU	ZF2CZ	—WA3UFI
OH0AL	—OH2AL	ZK3RW	—ZL1AMO
ON6WR/HB0	—ON6WR	ZP5JCY	—LU8DPM
OX3GH	—WA2TTI	ZS6APH	—WA3HUP
OX3PT	—WA2TTI	3A3EE	—F9RM
OX3SG	—LA5NM	3B8GA	—N6ZV
OY1MJ	—HB9CJX	3B8ZV	—N6ZV
OY1R	—W2KF	3D2DM	—KE4OC
P29SO	—VK3BSO	3D2TI	—JA1FBD
P47N	—W5AT	3V8AS	—DJ6QT
PJ2FR	—N6KT	3V8PS	—IN3RZV
PJ8UQ	—W3HNK	3X4FX	—N4CID
PY0F	—PY1DOQ		*(See Note 1)*
RF6V	—UK5IBB	4N9V	—YU4CA
RW9A	—UK9AAN	4V2C	—NQ4I
S79WHM	—N6ZV	4Z0DX	—4Z4DX
ST2SS	—YU2DX	5H3SG	—KA3FIB
SU1RK	—DL5JP	5R8AL	—WA4VDE
SV5JH	—DJ9ZB	5T5RD	—F6IIM
SV8CT/SV5	—N4AXT	5T5RY	—F6FNU
TE30RC	—T12RC	5V7RE	—DJ5RT
TE32CCC	—T12CCC	6V5JB	—F6FIO
TE32CRM	—T12CRM	6W8AR	—DJ3AS
TF5TP	—DL7MQ	7P8CL	—SM5DGA
TG9NX	—N4FKZ	7P8DB	—ZS6BKZ
TI1C	—K6HNZ	8P6RE	—KA3GSN
TJ1QS	—F6DZU	9H1EL	—LA2TO
TK6JUN	—F6AEV	9U5JB	—ON5NT
TL8GE	—F6FYD	9Y4JW	—K2QIE
TO5AB	—F6AOJ	9Y4RD/SU	—KA2DDJ
TR5CR	—F6AQO	9Y4W	—N2MM
TR8DR	—W2PD		

A4XJV	—P.O. Box 5530, Ruwi, OMAN
A24WF	—P.O. Box 149, Palapye, BOTSWANA
A71AD	—P.O. Box 4747, Doha, QATAR
A92CX	—P.O. Box 702, BAHREIN
C31MO	—P.O. Box 164-E, PRINCIPALITY OF ANDORRA
C53EK	—P.O. Box 596, Banjul, GAMBIA
CP1GP	—P.O. Box 1218, La Paz, PORTUGAL
CT9MIC	—P.O. Box 186, Madeira, PORTUGAL
EA9KQ	—P.O. Box 21, Melilla, SPAIN
EA9MM	—P.O. Box 379, Melilla, SPAIN
EC9HE	—P.O. Box 269, Melilla, SPAIN
EC9HI	—P.O. Box 377, Melilla, SPAIN
EL2FB	—P.O. Box 98, Monrovia, LIBERIA
EL2P	—P.O. Box 1929, Monrovia, LIBERIA
FB8WK	—P.O. Box 190, Mazamet, 8181 FRANCE
FH8CB	—Elio Fontaine, B.P. 50, Dzaoudzi, Mayotte, FRANCE
FK8EJ	—P.O. Box 672, Noumea, NEW CALEDONIA
FK8EX	—P.O. Box 3859, Noumea, NEW CALEDONIA
FO8JE	—P.O. Box 41, Hao Island, Tahiti, FRENCH POLYNESIA
HL4XM	—P.O. Box 131, Kwangju, 500 KOREA
J21CI	—P.O. Box 1891, DJIBOUTI
J28DP	—P.O. Box 2417, DJIBOUTI
J28DX	—P.O. Box 1076, DJIBOUTI
KE4UX/KH9	—P.O. Box 248, WAKE ISLAND 96896
KX6QC	—P.O. Box 406, APO San Francisco, CA 96555
LU3AJW	—P.O. Box 143, Buenos Aires 1428, ARGENTINA
OX3CA	—Michael Woolverton, P.O. Box 1493, APO New York, NY 09023
S42HZR	—P.O. Box 592, Mexico, NY 13114
SV5OX	—P.O. Box 157, Rhodes, GREECE
T2GSH	—P.O. Box 40, Funafuti, TUVALU
T77V	—P.O. Box 1, SAN MARINO
TI2TAO	—P.O. Box 772, San Jose, COSTA RICA
V3CX	—P.O. Box 532, Belize City, BELIZE
VK2BQQ/LH	—P.O. Box 3209, Sydney 2001, AUSTRALIA
VP8VZ	—P.O. Box 48, Port Stanley, FALKLAND ISLANDS
YC3CGF	—P.O. Box 246, Surabaya, INDONESIA
YE4C	—P.O. Box 76, Banka Island, INDONESIA
ZB2CJ	—P.O. Box 292, GIBRALTAR
ZK2IK	—P.O. Box 37, NIUE ISLAND
3D6AL	—P.O. Box 64, Manzini, SWAZILAND
4M7QP	—P.O. Box 411, Margarita Island, VENEZUELA
5Z4DA	—P.O. Box 30137, Nairobi, KENYA
5Z4GM	—P.O. Box 57056, Nairobi, KENYA
5Z4YP	—P.O. Box 115, Nanyuki, KENYA
8P6QI	—P.O. Box 167, Bridgetown, BARBADOS
8P6QZ	—P.O. Box 408, Bridgetown, BARBADOS
8P6RE	—P.O. Box 863E, Bridgetown, BARBADOS
8Q7AC	—P.O. Box 0207, Naifaru, MALDIVE REPUBLIC
9J2MY	—P.O. Box 50943, Lusaka, ZAMBIA
9K2FX	—P.O. Box 77, Safat, KUWAIT
9Y4WCY	—P.O. Box 1167, Port of Spain, TRINIDAD

Notes
1. Applies only for contacts made on or after 06 June 1985.

Contributors include K1SC, K3ZO, N5DDV, KH6CZ, WA6WZO, KC7V, the Northern California DX Foundation, Kansas DX Association, Kansas City DX Club, Western Washington DX Club, Redwood Empire DX Association, Northern California DX Club, Southern California DX Club, *Long Island DX Bulletin, DX News Sheet* and *The DX Bulletin.*

One of the W-100-N holders wrote recently for a duplicate to replace the original certificate that had been destroyed and wanted to know if there were any costs to have a replacement sent. Not really. All we can add is that if you, for any reason, have lost or have had your W-100-N certificate destroyed, just let me know and I will issue you a new one. Please give me the certificate number and date of issue, if possible.

In the last issue, we listed K6QR as the winner of the NCDXC marathon (CW only). It should have read N6QR operated by Adam Mentes.

Speaking of marathons, I got involved with the California International Marathon that ran from Folsom to Sacramento, California Sunday morning, 04 December. I helped verify the results at the finish line. Those runners impressed me with the first five coming in under 2 hours and 15 minutes. (The winner did it in 2 hours, 13 minutes and 35 seconds.) What was really impressive was the 76-year-old woman who ran the 26-plus miles in about 5 hours, 30 minutes. She had just run her 37th marathon. So, you see, you are never too old to do anything — even work DX. 73 de John, N6JM. □

•••••

Pass it on . . . WORLDRADIO

AMSAT OSCAR

Dr. Norman L. Chalfin, K6PGX

Of course, the big space event for hams, in the period from 28 November through 08 December, was the STS-9 mission during which astronaut-amateur Owen Garriott, W5LFL, used his leisure periods aboard the shuttle to attempt 2-meter contacts with amateurs on the ground. At the JPL Amateur Radio Club Station W6VIO in Pasadena — as well as along the East and West Coasts, the central United States, Canada, Mexico and down into South America, amateurs listened for the voice from space.

This reporter heard the call of W5LFL on a hand-held ICOM 2AT while standing on a bridge across an arroyo on the JPL facility. The time was 30 November, at approximately 6:36 p.m. PST. We then called several times during successive odd minutes, when — according to plan — Owen was supposed to have been listening.

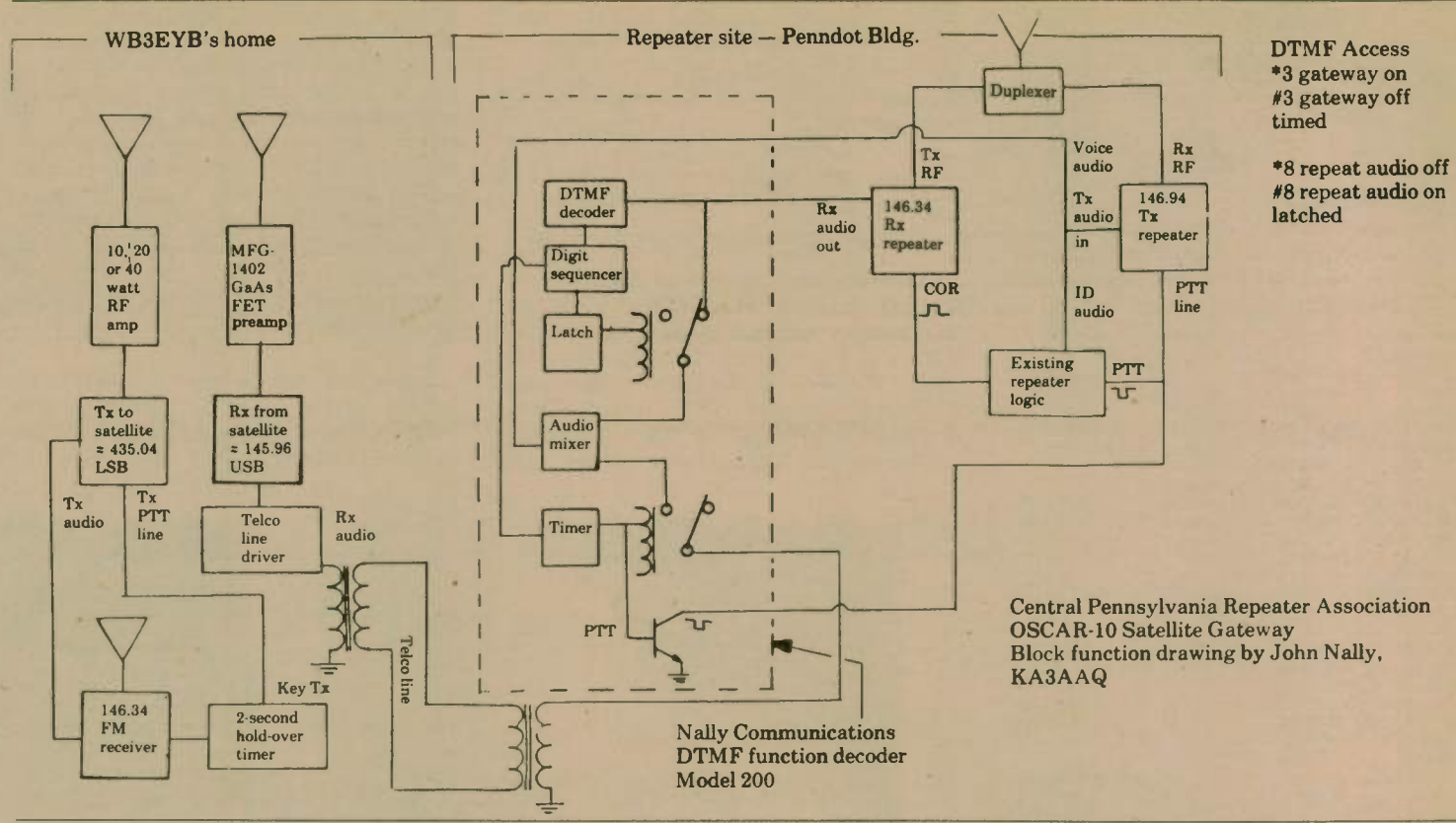
The one aspect that marred the activity in some regions was the failure of even some very experienced amateurs to realize that 145.55 MHz was the space-to-ground frequency and that when they called on that frequency, no one heard them except the people on the ground who were listening for W5LFL.

If you heard Owen, or if you heard him acknowledge your call, send your QSL to ARRL, addressed to the attention of "W5LFL QSL", 225 Main St., Newington, CT 06111. A card should be sent for each time heard or contact acknowledged. A separate SASE should be included for each card.

During the flight, in an interview with W5LFL, Roy Neal, K6DUE, elicited from him information that the signals heard in space were relatively weak, which could have been a result of the desensing of his gear in the shuttle by the needlessly high power used by many amateurs in uplinking to the spacecraft.

When I heard the W5LFL call, it was so loud that he could have been operating a kilowatt right next door. At one point, my receiver blocked during the few moments of the pass in which we heard the astronaut's signal. He said he was transmitting with 4 watts, and that for the next minute he would be tuning for calls.

I hope there is a next time. If there is, I also hope the amateur community will read their instructions more carefully so as not to spoil the fun of what was a great ham event.



Central Pennsylvania Repeater Association
OSCAR-10 Satellite Gateway
Block function drawing by John Nally, KA3AAQ

CPRA gateway

Here is a repeater set-up that OSCAR-10 users might want to copy.

The following is a brief description of the Harrisburg (CPRA) gateway to AMSAT/OSCAR-10. The gateway consists of three major components: the uplink, the downlink and the repeater interface.

Uplink: FM signals received on 146.34 at John Shingara, WB3EYB's home are audio coupled to a 10 watt exciter on 435.060. A 100 watt MIRAGE D10-10 amplifier follows to 36 elements RHCP transmitting array. The two radios on the uplink are ICOM mobile all-mode rigs. An IC-290H receives 146.34 FM and an IC-490A transmits 435.060 SSE.

The radios were chosen because they both have microprocessor frequency controls for future remote offset frequency adjustments. A simple transistor delay COR PCB in the receiver activates the PTT line in the 430 MHz transceiver.

Downlink: The downlink signals are received on an 18-element RHCP F9FT array. An MGF1402 GaAs FET preamp then feeds a Kenwood TS700A transceiver. The audio from the TS700A is then fed through a Shure Brothers microphone mixer and fed into a DC pair phone line. The phone line terminates four miles away at the 34.94 repeater site in downtown Harrisburg.

Repeater interface: The 34.94 machine is a single site Motorola MOTRAC repeater. When not in gateway mode, it operates as a normal repeater. When Touch Tone *3 appears on the input, the transmitter switches on for eight minutes. The audio line to the transmitter is then switched from the .34 receiver to the phone line.

Operation: The gateway requires a con-

Norm Chalfin, K6PGX, stands on a bridge across an arroyo on the JPL facility while attempting to contact Owen Garriott, W5LFL, aboard the shuttle *Columbia*. The rig used was an ICOM 2AT with a ⅝-wave whip antenna. W5LFL was heard loud and clear!

trol operator at all times. The operator's function is to align the receiver and transmitter frequency and to aim the array. The link is set to transmit on 435.060 LSB and the receiver to 145.940 USB and the array is aimed near the satellite apogee point.

When the downlink signals are strong enough, I access the repeater and announce the gateway will be open. I usually have a little explaining to do at this time to the new people on the gateway. I then send Touch Tone *3 on 34, and the downlink is on the air. To access the uplink, the stations just have to hit the Ringo at my house with a full quieting signal on 146.34.

The CPRA repeater-satellite link makes possible two-way contacts via AMSAT/OSCAR-10 around the world with a hand-held 2-meter transceiver!

For more information, contact: Tim Shingara, WB3EYB, 2857 Rumson Dr., Harrisburg, PA 17104; (717) 232-5011.

The following, from Bill Lazzaro — General Manager of AMSAT — may be of interest to clubs involved in hamfests and amateur meetings.

The successful operation of OSCAR-10 brings with it many new challenges and opportunities. Perhaps the largest challenge facing AMSAT today is the need to expand its membership. Ideally, this is best achieved by providing information and assistance to those amateurs who are just now becoming satellite enthusiasts. This vast group of potential members holds the key to our future as an organization. Their active participation and financial support will propel us into an exciting future. Without them, we may face a future of unfulfilled dreams.

Take the lead in bringing the AMSAT message to the amateurs in your area. A proven method of meeting this objective is through hamfest participation. I ask that you plan to represent AMSAT at your area hamfests.

The set-up of a booth is a simple task. You might also consider leading a demonstration or a forum talk if such an opportunity exists.

Please request a hamfest support kit from our office. It includes free handouts and our many promotional items. We also have some excellent audio-visual programs which are well-suited to hamfest activities. These include VHS videotapes, slides, tapes and pictures.

Your participation in hamfests will be an important step toward a bright future. Moreover, you will find it a personally rewarding experience.

For further information, call (301) 589-6062.

Sidelights to W5LFL's ham in space operation

The first amateur in the United States to make a contact with W5LFL was Richard Collister, WA1JXN, in Frenchtown, Montana. There were a great many others, including a four-minute QSO with King Hussein, JY1, of Jordan while *Columbia* was passing over Amman, the capital of Jordan. Another celebrity contact was with Senator Barry Goldwater, K7UGA. It was only natural that W1AW should have been a contact on Wednesday, 07 December.

An unusual contact was made when VK1ORR patched W5LFL through to Mission Control in Houston while Garriott was over Melbourne, Australia. During the Australian contact, the U.S. ambassador to Australia, Robert Nesen; Astronaut Joe Kerwin; and Jake Garn, U.S. senator from Utah, talked with Garriott. The latter let the astronauts aboard the *Columbia* know he was still hankering after a ride in space.

•

Victor C. Clark, W4KFC, was instrumental — along with Roy Hinkel, K6DUE, and Gen. Abrahamson of NASA — in making Garriott's feat possible. He was not destined to see the fruit of his labors. It is one of life's strange ironies that Vic passed away of a heart attack three days before the lift-off of STS-9. We send our condolences to the family of Victor Clark, and our sympathy to the ARRL on the loss of its best-known and loved amateur. □

(See OSCAR-10 info on page 33.)

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Please
send NEWS and PICTURES to
Worldradio

The Sport of Contesting

Yuri Blanarovich, VE3BMV

Contesters vs. others

"Poor" contester. When the "C" day comes and the Big One is on, he has to fight not only QRM, bad conditions, TVI neighbors, wife, desire to sleep, sore throat, hurting ears, but also other compatriots in radio arms — non-contesters. They could be: ragchewers, QRU net operators, SSTV, and some of those who "own" the frequency. Could happen to anyone.

When the city of Boston organizes their yearly marathon, there are those who run in it, and there are admirers who come to watch and cheer up the runners. There are also those who watch it on the TV, and there are those who don't care and go fly a kite or do something useful.

The streets are prepared for the event and what is not to be there, is not there. If someone wants to park his car in the middle of the street where they have a finish line or in the middle of the path, it would not only look silly, it is not acceptable. We also do not see people throwing stones and planks at the runners, laughing at them, putting them down, telling them to go and run by the river, and not here through beautiful downtown.

Well, hams are more "advanced and civilized." When the contest starts, there is a lot of complaining, insisting on having their frequency for — quite often — trivial QSO, nets have to go on that particular frequency (they do not know how to QSY?) and so on. When those otherwise normal people sit in front of the radio, all of a sudden things are different; logic is reversed. What makes sense in their non-radio lives, doesn't make sense when that hand is on the radio's tuning knob.

Here come the remarks about those '#$%& contesters again, here come the carriers and other "niceties" that are meant to trip and hurt the radio runner, who is out there to represent his country or club.

Let's look closer at pro's and con's of contesting in respect to the "damage" they do to the bands. There are perhaps six major contests a year, and they are publicized in all magazines. The dates are the same every year. One can anticipate the major one, for that one will most likely disrupt our daily patterns. There are a few options for the non-contester:

1) He can part-time participate — make an occasional contact or give a station with nice-sounding signal a point by working him. That is equivalent to cheering up our marathon runner and saying: "Hey, good going. We are proud of you, good luck!"

2) If he has an important traffic or a QSO to make, he can make arrangements to have an alternate frequency or mode. (He should always have the back-up plan.) The same goes for the nets and other organized activities.

Every good communicator, be it ham or pro, has to have back-up in case of disruption by propagation, contest, wall-to-wall DX pile-up or other disasters. Common sense would dictate that one would not insist on crossing or parading on the street when there is a marathon in progress.

3) If he hates this contest "nonsense", he can go do something useful or explore other areas of our glorious hobby. If the contest is on phone, there is a CW segment wide open, RTTY, CCW etc. This might be a good opportunity to discover and enjoy other aspects of radio.

Putting the carrier on top of the station running the pile-up only indicates the low mental values of one who does it. Why would anyone in his right mind throw the planks at the runner? He is actually representing him or his country in the international event.

Too many contests?

Some say: "There is a contest every weekend!". Almost, but not quite or as bad as it seems. There are biggies, little ones and in-between. The biggies — we have just elaborated on them. The little ones usually are QSO parties or contests that never became popular because of their rules or aim. Those usually are not too disruptive, because at most, one would find a dozen or so stations calling "CQ Contest."

Activity is usually focused around the small segment of the band — one street corner, and regular life can go on around

VISIT YOUR LOCAL RADIO CLUB.

ALASKA

Borealis Amateur Radio Club
Mission Road
P.O. Box O
North Pole, AK 99705

ARIZONA

Tuscon Repeater Association
P.O. Box 40371, Tucson, AZ 85717-0371
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

The Amateur Radio Club of El Cajon, Inc.
Parkway Jr. High School
La Mesa, California
2nd Thursday/monthly — 7:30 p.m.

Conejo Valley Amateur Radio Club
Home Federal Savings and Loan
164 W. Hillcrest Drive
Thousand Oaks, CA
1st Thursday/monthly — 8:00 p.m.

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.

Fresno Amateur Radio Club, Inc.
P.O. Box 783, Fresno, CA 93712
Meets: 2nd Friday/monthly - 8:00 p.m.
Wawoha Middle School; 4524 N.
Thorne; Fresno. W6TO/R 146.34/94

Gabilan Amateur Radio Club
Monterey Savings & Loan Public Room
Corner First & Westwood
Gilroy, CA 95020
2nd Thursday/monthly - 7:30 p.m.

Livermore Amateur Radio Klub
2441 Heatherlark Cr., Pleasanton, CA 94566
Meets: Valley Memorial Hospital
Multi-purpose room, Livermore, CA
2nd Saturday/monthly - 9:30 a.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.

Santa Cruz County ARC
PO Box 238, Santa Cruz, CA 95061
Last Friday/monthly — 7:30 p.m.
San Fran. Fed. Savings, 1995 41st Ave., Capitola
K6BJ repeater 146.19/146.79

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

Simi Settlers ARC (SSARC)
PO Box 3035, Simi Valley, CA 93063
3rd Thursday/monthly - 7:30 p.m.
Bank of A. Levy (across Larwin Sq.)
K3HZP/R 147.165/.765 Simplex 147.48

Sonoma County Radio Amateurs, Inc.
Box 116, Santa Rosa, CA 95402
Hank Davis, W6DTV (707) 823-7885
County Office of Emergency Service
1st Wednesday/monthly - 7:30 p.m. rpter 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

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

Western Amateur Radio Assoc.
Cerritos Park East
166th St. and Carmenita Ave.
Cerritos, CA.
1st Tuesday/monthly 7:00 p.m. - 145.400

West Valley A.R.A. W6PIY
Meets: Los Gatos Red Cross Bldg.
18011 Los Gatos - Saratoga Rd.
Los Gatos, CA 95030
1st and 3rd Wednesdays/monthly

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

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

Bolingbrook Amateur Radio Society
Fountaindale Library
300 W. Briarcliff Rd., Bolingbrook
(312) 739-0045 / call in 147.93/33
3rd Monday/monthly - 7:00 p.m.

Chicago Suburban Radio Association (CSRA)
Clyde Federal Savings & Loan Assn.
7222 West Cermak Road
North Rivrside, IL 60546
2nd Wednesday/monthly - 8:00 p.m.

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.

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.

Six Meter Club of Chicago, Inc. - K9ONA
Land of Lincoln Savings & Loan
6655 W. Cermak Rd.
Berwyn, IL 60402
2nd Friday/monthly 8:00 p.m. Rptr. 146.37/97

INDIANA

Allen Co. Amateur Radio Tech'l Society, Inc.
PO Box 10342, Ft. Wayne, IN 46851
Allen-Wells Chapter House • Amer. Red Cross
1212 E. California Rd., Ft. Wayne, IN 46825
3rd Tuesday/monthly - 7:30 p.m.

Fort Wayne Radio Club
Ron Koczor, K9TUS
PO Box 15127, Fort Wayne, IN 46885
The Salem Church
3rd Friday/monthly - 7:30 p.m.

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 147.96/.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.

MARYLAND

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

MICHIGAN

The Metropolitan A.R.C.
Harper Woods City Hall
I-94 & Eastwood (Between Vernier & Moross)
Repeater - 448.55T/443.55R.
1st Sunday/monthly - 2:00 p.m.

MASSACHUSETTS

Q.R.A. (Quannapowitt Radio Assoc.)
Masonic Hall — Salem Street
Wakefield, MA 01880
2nd Friday/monthly Sept-May 8:00 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
Mtgs: 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! Dave Potter, W2GZD, (516) 472-2394

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.

C.A.R.S. (The Clyde Amateur Radio Society)
Ervin Remaley, KA8CAS, Secretary
2nd Tuesday/monthly - 7:30 p.m.
Community Rm., City Building, Clyde, OH
Repeater 144.75/145.35

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.
K8KRG — 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
Beaverton Elks Lodge
3500 SW 104th Ave.
Beaverton, Oregon
2nd Wednesday/monthly - 7:00 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.

it. They serve special interest groups to get together and compete within their own little "marathonchik". Some of them are fading away because of a lack of interest or rules.

Also, one can only operate so many contests a year. As the contester matures and gets better, he becomes more selective as to which contest to operate; he usually focuses on the biggies. A starting contest enthusiast would try the small contest first; it is better to learn tricks of trade gradually, rather than getting overwhelmed by the world class runners at the Boston Marathon. If he is interested, he will persist, gradually build up the skills and stations, and eventually become a world class athlete; his country and compatriots will be proud of him.

We should really, at this point, discourage invention of new contests and try to consolidate those we have (i.e., some local activities could be combined and run merged with some of the biggies or those in between).

One local club asked me for a suggestion on how to run their QSO party. After finding what their aim was, I came up with a solution that made them happy and did not create another $#'!* contest. They worked out a contest that really was not a contest. It was run as a part of the CAN-AM Contest in such a way that they participated in the CAN-AM, but the club members then compared their scores and after the official results were out, the trophy was issued to the highest scoring member from their club in the CAN-AM contest.

The results: more fun for the club members; more stations than there would have been in a local QSO party; CAN-AM got a boost from more participants; there was no new contest started; less work with log processing — the club just had to wait for the results.

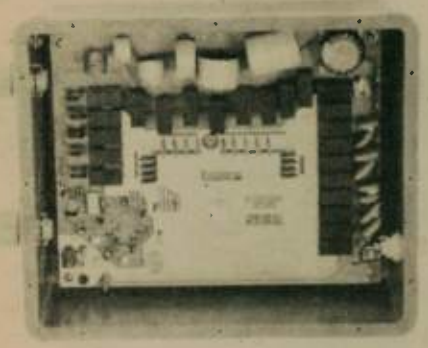
I strongly recommend that other clubs look at their little contests and perhaps combine them in a similar fashion with an existing contest that best suits them, and have awards and trophies for their own members. They do not have to compete with world class runners and feel bad about being so far behind. They can have their own club admirers and become first among their peers, even when they're behind. The other big benefit is that they will get the indication where they belong on the world scale, and can follow their progress over the years.

This idea can also be applied to some national contests. For instance, Spratly Island DX Contest (SIDXC) can be combined with the CQ WW Contest in such a way that the Spratly Island government will announce that stations working the highest number of 1S1 stations during the CQ WW contest can submit separate contest entry forms, showing only the number of 1S1 stations worked and scores calculated according to SIDXC rules. The winner will receive a trophy full of bullet holes and will be paid for a one-way ticket to Spratly to receive the trophy. This way, 1S1 stations would gain the advantage of being able to work a number of little guys when the rush

(please turn to page 33)

"More on automatic tuners and equipment"

A landslide of letters tells me you are interested in marine, automatic antenna tuners for your worldwide set. We have been conducting many tests since that Maxcom tuner hit the market. As we stated in the January issue, the tuner does do a nice job of matching a backstay or whip to your high-frequency ham rig on all frequencies between 1 MHz and 70 MHz. That Maxcom also does a good job in transferring the RF into the air. Not a great job — just a good job.



Marine automatic antenna tuner

My attempts to contact the Maxcom maker to find out exactly what's on the inside have been futile. I have been assured that it's not a 50-ohm resistor! One factory representative indicated that a broadband transformer is used in coupling the RF from your rig to a random long-wire antenna. Of course, everyone was quick to point out the necessity for a good ground system attached to the automatic tuner. This makes sense. The better the ground, the better the signal.

Continued testing still puts this automatic tuner a good cut below what you can do with a manual tuner in resonating a long-wire or whip antenna to your set. In plain talk, the automatic Maxcom loses some of your power output in the transformer assembly during its operation. Exactly how much loss is incurred depends on the frequency of operation, the length of your whip, and the amount of groundplane you are using as a counterpoise aboard your ship. Under good propagation, a 50-watt signal sounds as good as a 100-watt signal, so who cares?

I care. I want the most power out from an automatic antenna tuner with almost no loss — or at least no more loss than a

A good marine set for the future!

manual tuner. Is there such an apparatus available? You bet there is — if you are willing to spend $1,500.

This unit has less loss than a manual tuner, and is built to commercial marine single-sideband specifications. It's manufactured by Stephen's Engineering Associates, Inc., 7030-200th St. SW, Mountlake Terrace, WA 98043; (206) 771-2182. This Stephen's Model 1603 is a completely automatic antenna tuner that will cover frequencies between 1.6 MHz and 25 MHz with a maximum power rating of 150 watts PEP. This antenna coupler offers less loss than conventional manual tuners installed by your Amateur Radio setup down below. This tuner goes back aft, or under your whip antenna, to provide maximum transfer of energy.

The coupler matches the antenna by selecting the proper network from a possible combination of 32 values of input C, 32 values of output C, and 128 values of series L. (You know, C for capacitance and L for inductance!) The network configuration is automatically determined during the tune-up cycle that is fully automatic. As soon as the coupler senses your voice (30 watts minimum), it will instantly tune either a Pi network or either of two types of L network. Whenever possible, the L network will be selected for maximum efficiency. Tune-up takes less than a tenth of a second and is entirely automatic on 30 watt voice signals, CW or RTTY.

The unit requires less than 1 amp at 12 volts to operate. A gaggle of tiny reed relays instantly clicks in the inductance and capacitance as determined by the microprocessor within the weatherproof coupler. This LSI chip senses antenna system impedance, reactance sign and the load VSWR. This information switches in appropriate relays (17 of them) to allow for the proper amount of L and C to be switched in.

Those tiny, sealed reed relays won't rob you of any precious power. There's almost nothing in the tuner that will soak up the RF energy. Put 100 watts in, and your output power will be darn near what you put in. Almost no loss. Slightly less loss from a manual tuner by your transceiver setup, and substantially lower losses than the small Maxcom tuner.

By the way, as you can see by the photo, this equipment isn't small. However, hide it below decks beneath your antenna system, and you won't even know it's there.

The model number is SEA-1603 if you plan to run it off 12 volts. Ask for Model SEA-1602 if you plan to run it off a 32-volt floating ground. The only difference between the two is the size of the 5-volt regulator heatsink on the control board.

Now, I realize that $1,000 is a lot to pay for an automatic antenna coupler, but if you want the most efficiency, this set-up is the way to go. The microcomputer-controlled reed relay system allows for the very lowest loss of power transfer between your transceiver and your random wire or whip antenna system. Remember, you still need a good counterpoise and ground system to make this set-up fly.

Changing places

Manufacturers of high-frequency single sideband equipment are eyeing each other for more marketing opportunities. ICOM is in the process of coming out with a sophisticated marine single-sideband radio — FCC type accepted — that will fulfill your needs for Coast Guard, telephone and ship-to-ship communications.

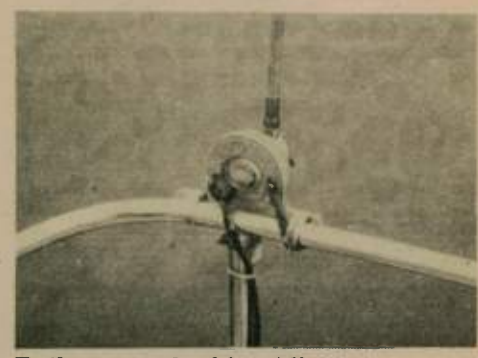
An underwater ham/marine SSB radio, from SGC Corp., 13737 SE 26th St., Bellevue, WA 98009

SGC, Inc., a manufacturer of marine sideband equipment, indicates that their completely waterproof set will also work on ham frequencies. Although the SGC set is crystal-controlled, it works quite dandy on 14.313 MHz in the drink. The new PLL ICOM set will also work on ham frequencies as well as marine frequencies, and it's going to have a very attractive price tag, too.

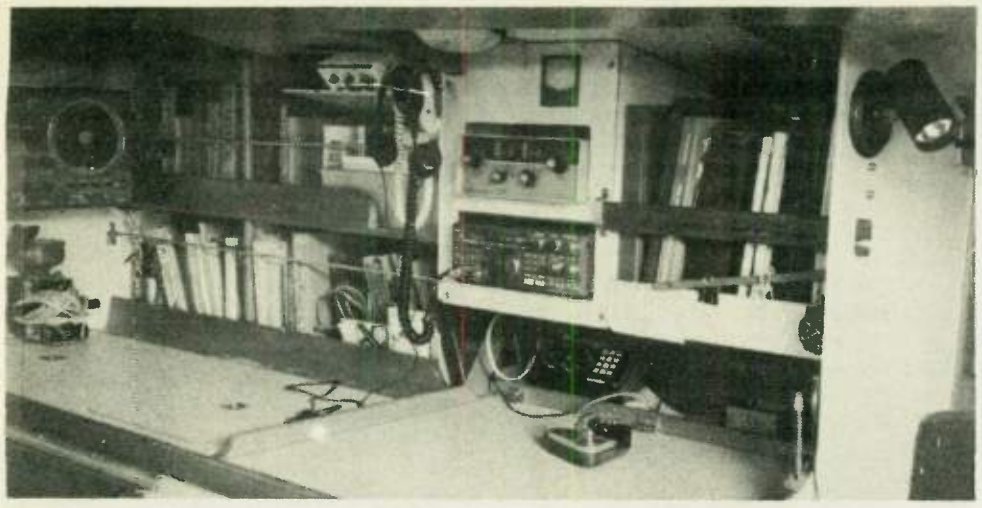
Yaesu makes marine VHF equipment, and who knows when they may come into the marine SSB market. Kenwood makes business radio gear, and chances are they may wish to jump into the picture of marine communications. Looks like, again, ICOM will be first.

Interested in reading about those far-off ports and getting the inside scoop on how to navigate to them, what's ashore, and whether or not there's any Amateur Radio activity? A non-profit organization called "Seven Seas Cruising Association" offers a monthly magazine (typewriter-printed) that's chock-full of reports from fellow cruising enthusiasts about distant ports. Many of these cruising mariners are Amateur Radio operators, and you get the inside information direct from these folks.

They often have detailed charts on distant ports, as well. It's really fun reading, and you may wish to subscribe by sending $18 to Seven Seas Cruising Association, P.O. Box 2190, Covington, LA 70434. Be sure and let them know your Amateur Radio call sign, and they will add you to their roster of ham operators afloat.



Rail-mounted whip. All coax connections are covered with Coax Seal.



Peter Sutter's naval station with ham set-up

Another fine organization for the ham afloat is the Maritime Mobile ARC, 2800 Samuels Rd., Samuels, ID 83864.

"We have about 300 active members from all over the United States and some foreign countries. You must be a licensed amateur and have an interest in maritime mobile activities. The majority of our members are active in commercial services, such as Masters, Radio Operators and other similar ratings, including Pursers, A.B.'s, and just about every other class you can think of. However, we have quite a few members who are owners of private craft, and both types are welcome, commercial and private.

"We also have a retired group who have retired from active participation in sea-going activities, and a large number of coastal members who are not engaged in sea-going work or participation, but who have an interest in maritime activities. We publish a quarterly newsletter to keep everyone up to date on FCC news and happenings especially of interest to maritime mobile operation. We also have a big convention every two years — this year we will be meeting aboard the *Queen Mary*. Mariners interested in joining our group should drop me a line personally," comments Allen Moser, W7GYR, secretary-treasurer.

In reading over their newsletter, it's full of useful information, and their list of members is quite impressive. You might want to drop Allen a note for more information. Be sure to include a self-addressed stamped envelope — this is a non-profit group.

Here is an interesting letter from Peter Sutter, N6DQN, of *Sutter Sails* fame:

"My antennas include the Hustler mobile trap verticals and an end-fed backstay. The backstay's feedline is made of the GTO-1500 volt neon sign cable, and the distance between the coupler and the upper insulator is 63 feet 0 inches, or just under a half-wavelength on the upper end of 40 meters. I found that it is necessary to be either under or over, and not right on, when resonating the long-wire antennas aboard boats.

The feedline end of the antenna does produce RF around the boat, turning on small lights, etc., but small capacitors across these lights correct the problem. You are so right about the grounding systems being the most important factor concerning good signals out. Everything I have done to improve mine means another dB better on the other end. I use the vertical on 15 and 20 meters, and the backstay on 40 and 80 meters. The vertical always gets the better reports."

Very interesting. As we have said before, you need to try out whips vs. backstays before coming to a conclusion as to which works best aboard a particular boat. Sometimes the backstay wins, and other times the vertical wins.

Last week I was aboard a small sailboat using the popular "Spider" multi-band marine ham antennas, as advertised in **Worldradio**. They had an incredibly loud signal on every band. These small whips dramatically outperformed the backstay, because the backstay had several other stays that were grounded running close to it. You really must try it before you decide which way you are planning on going.

That's it for this month. Keep those letters coming, and let us know your experiences with antennas and equipment aboard. Listen to the 21.404 MHz Pacific Maritime Net — they are doing a fabulous job helping mariners all over the Pacific. There are plenty of net controllers, and they handle their tasks like true professionals! Good work, girls and fellas! □

Arizona nets

	MST		MHz
Daily	1800	Cactus Net	3.915
	1930	AZ Traffic & Emergency Net	3.992
Sunday	0845	Tucson/Pima County RACES	3.995
Monday	1900	AZ Search & Rescue Assoc	146.28/88
	1900	Tucson Public Service Net	146.34/94
Wednesday	2000	HANDI-HAM Net	147.51
Saturday	1300	Tucson/Pima County RACES	147.90/30

— Old Pueblo RC, Tucson, AZ □

A CW wedding

Lenore Jensen, W6NAZ

CW played a prominent role in the unusual wedding of Nancy Araujo, KE6QI, and Harry Hinz, KE6RJ, on 22 October.

Because Amateur Radio had introduced them a couple of years ago, they decided it had been so important to their courtship that it *had* to be part of the marriage ceremony. And all concerned were to be licensed operators — with scores more attending as SWLs.

All-ham wedding ceremony included (left to right): Zollie Byrd, KA6USB; bride Nancy Araújo, KE6QI; groom Harry Hinz, KE6RJ; operator Gene Stephens, KA6HOQ; and the Reverend Ray Vance, KB6X.

Being sailors, they appropriately chose a room at the Seal Beach Yacht Club as the spot. Seated next to the couple, the Rev. Ray Vance, KB6X, began the service at 0230Z. Not to stray too far from tradition, the vows were to be spoken as well as transmitted on CW in this highly-moving ceremony.

Ham friends far and wide had been invited to copy. However, for the benefit of 40 close friends and relatives in the radio room, a voice translation of radio activities was given by Zollie Byrd, KA6USB. (He's a staff commodore of the yacht club as well as advisor for the radio club, which enjoys space on the premises and daily serves maritime mobile stations.) Beverly Caughey, NJ6N, also assisted in the preparations.

Gene Stephens, KA6HOQ, had arranged for a 40-meter sked with friends Marijean Piorkowski, NO6Y (on her boat), and with Dwight Graham, WA6NAE, at Castro Valley.

As the minister asked his formal questions, he also sent them on his straight key. The bride and groom each replied, simultaneously by voice and with their gold-plated Bencher paddle. (Gene had rigged an ingenious arrangement of keys to the ICOM 730, which fed a Basset trap dipole above the building.)

Nancy and Harry's courtship was both dramatic and romantically adventuresome. They had set out on a 20,000 mile trip throughout the Pacific on a Golden Hind sloop, 31 feet long and bearing the name *Wind Tree*. It took them to French Polynesia — first to the Marquesas, Tuamotus, Societies and Leeward Islands; Tonga and Fiji were next. Four months were spent in New Zealand, not only sailing the coasts but touring both islands in a camper.

Later they put in at the tropical paradise islands of Tahiti, Moorea and Hawaii.

They come from different parts of the world. Although a native of California, the bride lived for several years in Brazil before returning stateside a few years ago. Now, she majors in education at California State University, Long Beach. Previously she had worked as a bilingual secretary, fluent in Portuguese and German.

Harry came to the United States 20 years ago from Berlin; he presently is a regional manager for a medical electronics firm.

Just as so many amateurs had followed the couple's travels, it was obvious the QSO-ceremony should be followed by QSPs of congratulations and well-wishes on the air. Complying, the CW-wed couple planned to send out commemorative QSL cards to their on-the-air guests.

Members of the Radio Club of the Seal Beach Yacht Club were delighted to add another "rare one" to the station's accomplishments. □

TEACHER

Alan Kline, KB1DJ
P.O. Box 54
West Lynn, MA 01905

For a few columns now, I have mentioned a booklet entitled *Ham Radio on the North Shore*. It is a booklet I have printed to be used as a handout to all students and club members who attend our classes.

As it is a large gathering of various Amateur Radio facts, it is also useful to give to anyone who moves into your Amateur Radio community from another part of the country. Please feel free to copy any part or the whole concept if you like.

When funding has allowed, we have printed it in booklet form. When the funds weren't available, we just ran off copies on the office copier. Also, if you choose to use my format, remember — some of the facts do change from time to time.

Ham Radio on the North Shore

First, let me welcome you to another Amateur Radio Code and Theory class co-sponsored by North Shore Ham Services (NSHS), HANDI-HAMS of Minnesota and the North Shore Repeater Association (NSRA). We are all volunteer instructors here to help you pass the FCC requirements, both technical and Morse code-wise, to obtain your Amateur Radio license and get on the air.

Whether you are attending a class for the first time, taking it as a refresher program or upgrading to a higher level, you should find this booklet helpful. We have compiled these various facts about Amateur Radio on the North Shore, which we feel you need to know to make your newly found hobby more enjoyable.

NSHS

NSHS is an outgrowth of the 28/88 repeater's educational committee. It is a non-profit organization that was founded to meet the different educational needs of the prospective Amateur Radio operator. We teach Novices and those already licensed who want to upgrade. We try to provide the needed educational experience for anyone who wants to get their license and get on the air. All of our instructors are active amateurs who are willing to help you in many ways.

NSRA

The NSRA is the largest and most active ARRL-affiliated special service club on the North Shore. With over 250 members, we support three repeaters and are active in public events all over the North Shore. Please feel free to attend any of our meetings.

HANDI-HAMS

The Courage Center of Golden Valley, Minnesota is home for the HANDI-HAM System. The Center provides medical and vocational rehabilitation to the handicapped in the upper Midwest. The HANDI-HAM System is a service of the Center that helps the handicapped get their Amateur Radio licenses. We, as a part of the System, provide equipment, study materials, antennas and one-to-one help in studying for amateur exams. As a supporter of the System, we raise money and spread the word about their services here in Massachusetts.

Class/club stations

We operate and support three high school Amateur Radio stations. They are located at Pentucket Regional Junior High School, Marblehead Senior High School and Danvers Senior High School. All school stations have Novice-type rigs and antennas for the low bands and 2 meters. Our goal is to be able to use these stations both as a part of our classes and in an emergency situation. All three stations are available for the instructors to use as needed, plus we encourage our past students to operate them during the school day. Please contact KB1DJ for operating times available.

Leadership

Since it was founded in 1977, North Shore Ham Services has been directed and guided by myself, Alan Kline. I was first licensed in 1977, as a Technician Class, with the call sign of WB1FOD. I currently hold an Advanced Class ticket with the call sign of KB1DJ. Since starting my Amateur Radio career/hobby, my credits include: Past secretary for the NSRA; chairman of the Educational Committee; ARRL Region #1 Convention Committee member; ARRL convention lecturer; author of a 73 Magazine article on classes; and monthly columnist in **Worldradio.** I am self-employed as vice president of Marketing and Operations for the LYN-LAD Group, Ltd., with headquarters at Lynn Ladder and Scaffolding Co. in Lynn, Massachusetts.

Any and all help is welcomed in the guidance of any of our programs. Please feel free to contact me at any time with your offer of help.

Class times

Traditionally, our classes are held at the Danvers High School in rooms 116, 118 and 120. The school is centrally located on Cabot Rd., just off Rt. 62. They have been on Thursday nights from 7:30 to 9:30 p.m. Depending on my personal schedule, they start sometime in September or October of every year. From time to time, we teach at other locations and schools.

Fees

All class attendees over 18 and under 62 are asked to make a donation of $20 per class they attend. This is per family member and helps support our various programs. The monies collected are used to support the high school stations, buy class supplies, cover mailing costs and buy equipment for the handicapped. At the end of each fiscal school year, a minimum donation of $100 goes to HANDI-HAMS.

Classes and demonstrations to any group, especially kids, are free. We can arrange for Novice classes at any North Shore school or scout group. Any handicapped student we help gets all materials needed from us, no charge.

Donations

NSHS will be glad to accept your donations of money or equipment. All radio gear donated to use will be put into service or sold to generate the needed funds to support our efforts. The Repeater Association only funds $100 of our annual budget, so we need your help. We can also arrange for donations to go directly to HANDI-HAMS in Minnesota.

Audiovisuals

NSHS owns various 16mm color movies and videotapes about Amateur Radio. The lengths vary from 18 to 35 minutes and are for the non-amateur viewer. If you would like to borrow them, for showing to any group, please contact KB1DJ.

Textbooks

No one textbook covers all the study material needed to pass the FCC recommended exams. As there are many good books on the market for all levels of

study, we recommend the following for starters:

Novice: ARRL's Tune In the World Package, 73's Novice Manual, AMECO's Novice License Manual; **General:** AMECO's Amateur Radio Theory Course, ARRL's Amateur Radio Handbook, *ARRL's License Manual, Bash's General Book.

The ARRL license is updated every few years, and it is a good book to have around for quick reference.

(Continued next month)

Work OSCAR-10

The SCHEDULE activity for working OSCAR-10 allows operators to determine, in advance, when a given satellite will be above the station horizon and to provide other pertinent data about each pass.

SCHEDULE information includes one line of data for each "pass", starting from the access period in progress or the next one to occur after the starting EPOCH. Each access period contains the date, AOS, LOS and MAX times (UTC), and a parameter and azimuth associated with MAX time. The date refers to AOS, with LOS possibly occurring on the following day. If LOS occurs more than one day after AOS, it will be so indicated.

DX/EL data are associated with MAX time and are either the maximum DX distance, measured along the surface of the Earth in kilometers, available during the PHASE III pass, or the maximum elevation achieved with PHASE II-type orbits.

Maximum range on PHASE III-type orbits will occur at apogee, if apogee is in view of the station, or at AOS or LOS if apogee is not in view (indicated by an asterisk following the data). PHASE II maximum elevations will include an "EL" for identification. The AZ (azimuth) column gives the direction in which the maximum range or maximum elevation occurs. □

OSCAR predictions

Project OSCAR Inc. is preparing a new set of orbital predictions for the period covering the calendar year 1984. The predictions will provide the UTC times and longitude for all south to north equatorial crossings of the four Russian satellites carrying Mode A transponders (RS5, RS6, RS7 and RS8). In addition, the UTC time and sub-satellite latitude and longitude will be given for the apogee of each orbit of AMSAT/OSCAR-10 (A/O-10). This document, when used with the appropriate plotter, will allow the user to determine the access times to all the presently available Amateur Radio satellites carrying communication transponders. Don't miss this opportunity to personally take your giant step into the space age.

The large expense incurred to produce and disseminate a calendar of this magnitude necessitates a request for a minimum donation of $10 for mailings to the United States, Canada and Mexico ($12 for all overseas mailings).

To receive your copy of this set of orbital predictions, send a completed mailing label, and send it along with a check or money order payable to Project OSCAR Inc. Send it to Project OSCAR Inc., P.O. Box 1136, Los Altos, CA 94022.

The donation covers the cost of first class mailing within the United States, Canada and Mexico, and airmail printed matter to overseas destinations. The mailing of the orbital predictions will begin during the final weeks of December 1983.

Please show your support for this effort now so we can continue this service in the future. □

Contesting

(continued from page 29)

traffic from big guns is over, and they can gain a few extra points and help to achieve a world class score.

The little contest pistols can have fun just chasing the 1S1 stations and have their little contest without tying up another weekend. This way, I think many will be happy, and — as my grandfather used to say — the goat will be in one piece (and live) and wolf will be staffed (=full of food).

Any takers? I think the sponsor of biggies would be glad to mention "associated" contests in their rules announcement. The sponsors of the associated contests can also publish their own rules. Need assistance? I will be glad to help organize and set up the rules.

One "problem" in contesting is that there is no international body that would try to coordinate contesting activities. It should be an organization that is not aligned with any particular magazine or bureaucracy. It should be made out of the world's leading contesters or supporters of contesting. It would be a sort of "peace-keeping force" of contesting.

International Radio Contest Association — IRCA

In order to try to fill this gap, and coordinate and advise on contest matters, as well as promote contesting and provide a forum for the exchange of ideas and assistance to new-comers and old tigers, I would like to take the initiative and get the IRCA off the ground.

Composed of a group of supporters from the Ontario Contest Club, we are looking for volunteers willing to help in this direction. Just a few hints on the direction the IRCA would take:

It is an association promoting international good will through contesting. Members would receive a bulletin and discount on some services the association would provide. We are planning to sponsor a yearly International Contest Symposium during the Dayton Hamvention. A high-quality bulletin or magazine will be devoted to operating activities such as contesting in HF, VHF, etc.; DX'ing; SWL; moonbounce; computers in radio; satellite communications; technical articles by and for the active operator; publishing all time record tables, contest results and commentaries — anything that is of interest to active amateurs.

A room for individual club news will also be allocated, so that others can share your club's activities and know about them. We will also have a class of club membership.

Interested? Please drop me a line. We are looking for volunteers and writers. I will also approach some of the leading amateurs in their respective fields to contribute according to their means and resources.

Many magazines argue that contesters are a small minority and do not deserve much space on their pages. We are hoping to fill this gap and provide some interesting reading and fun for those who are involved in operating activities.

The problem with contester vs. non-contester is partially due to the lack of publicity contesting gets on the pages of major magazines. I think the contesters are still a driving force of progress and improvement in Amateur Radio. They devote quite a bit of time and effort to the advancement of the art of communication, and what do they get? Anonymity and planks thrown at them!

It is an irony that Amateur Radio (and contesting) is very little known and publicized in the popular press, considering that those *&%$ hams were really fathers and developers of the communications that we know and enjoy today. Many contributed as hams and professionals working for RCA, GE and Westinghouse. Thanks for all that, we get blamed for interference to cheap radios, sued for unsightly towers, sued for receiving programs that are on the air but someone decides it is his private (paid) signal. Maybe we should have stayed with crystal sets and everything would have been OK? Would it be too outrageous to have a few minutes here and there on the network sports program about the contests and results? That would bring some competitive and quality types into our hobby rather than trying to deregulate it down to CB mess. How about that you network/ham types? I think what we are doing is more interesting than Evel Knievel jumping over buses.

Contesting

A number of contests on "DC" bands, 160 meters, are on. This should be a good year to make some good scores, and perhaps records. We are on the slide of sunspots, and band conditions should be a good mix of long-distance propagation with low noise and increased activity because of "dead" higher bands at night time. The winners would be those with good quiet locations and super low-noise receiving antennas.

Thanks to all of those non-contesters who are understanding and who give us contesters cheer and encouragement when we "go bananas" in the big one. It is very much appreciated! To those who throw planks at us we say: grow up! To those who are just spectators, we say thank you for letting us do it. If you or anyone else needs help or advice, we will be glad to help. After all, it is a hobby and sport. Let's all have fun, and enjoy and respect each other's interests! □

Aerials

Kurt N. Sterba

Since I always enjoy a challenge, during Sweepstakes I decided to test what could be done under non-optimum operating conditions.

I took a Spider vertical antenna and put it on a desk in the shack. I had to take off the 40-meter resonator, as with it in place, the antenna wouldn't fit between the desk and the ceiling. So now I have an antenna that is all of 4' 5" tall.

The shack has five window screens, which I left in place. (It was too cold to go out and take them down!) I figured this would be a real torture test . . . an indoor antenna, window screens slurping up the RF, and I used an old rig of mine that measured a huge 50 watts output on 20, 40 watts out on 15 and 60 watts output on 75.

What happened? I made two contacts in two minutes and three contacts in four minutes on 15, and four contacts in five minutes on 20. Later I took the antenna off the table and put it on a chair; that way I could put the 40 resonator back on.

Things had gone so well, I decided to do something really ridiculous. As there is no 75 resonator on the Spider, through a tuner I loaded up on 75 meters. I worked two stations, each about 400 miles away in opposite directions.

The end result — I worked every U.S. call area and one or more stations in every ARRL Division except Canada.

Certainly a beam antenna up 50 feet it is not, as switching back and forth on receive would sharply point out. But for what it is, it does very well, as I found out. To work every corner of the United States in a contest with an indoor antenna shows that the folks at Spider have done something right. The only thing we could suggest is that they come up with some bracket-type device so that one could make a dipole antenna out of two Spider verticals. That way, one would not be dependent on a ground system and avoid the losses associated with an inadequate one.

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I see that the *Newington News* has gone back to saying "the SWR was disguised by means of a Transmatch." Where is that Walt Maxwell when they need him? I really don't want to beat this horse anymore, but for those who may have just joined us, a transmatch truly does what its name says: it MATCHES!

The writer of the article said (in referring to transmitting on 30 meters), "I was surprised to find that any HF band antenna would bring reasonable results" (when using the transmatch).

Well, if you had been reading old Kurt, it wouldn't come as a surprise. He also went on to say, "I was pleased to learn" (all I can say is, it's about time!!!) that his tri-band Yagi "would radiate well" when it was fed 30-meter energy when using a transmatch. Just what earth-shattering revelation will we be treated to next? *FLASH!* CW will get a message through where AM won't!

Now, here are the actual facts of the matter — an antenna tuner does truly TRANS-form one impedance to another. It doesn't fool the transmitter or any such nonsense. Every broadcast station uses a matching network to MATCH the output of the transmitter to that of the antenna. It doesn't FOOL or trick the transmitter it MATCHES!!!

Here is what really happens: If the antenna is too short (capacitive reactance), the tuner adds inductive reactance. If the antenna is too long (inductive reactance), the tuner adds capacitive reactance.

You could say it "balances" out, or you could say you have "neutralized" it. What has happened is that you have truly compensated for the effect originally found. It works — it works well.

The same article, in talking about the inverted-V, said, "The enclosed angle should be about 90 degrees." Ooops! Anything under 90 degrees will start cancellation.

Then we were told that angles up to 120 degrees provide good results. Well, how about more than 120 degrees? After all, the everyday dipole is 180 degrees.

Unfortunately, all the tub-thumping and chest-beating by the ARRL at the various conferences about the technical wizardry of the amateurs was thrown to the winds when this article mentioned that amateurs had written in asking for dimensions for antennas for 10.1 MHz. OUCH! They should have buried that deep. Do not wash your dirty laundry in public.

Maybe we should have "weighted" FCC exams. The question on how to determine the length of an antenna counts 51 points and 49 other questions count 1 point each.

Another article in the same issue, in talking about an SWR of 3.49 to 1, stated, "A Transmatch will make these impedances acceptable to the transmitter, but I do not like them!" I certainly wish he had told us why not. It won't make a jellybean worth of difference.

I heard an amateur on 75 phone say he would like to put up a 138 ft. flat-top, but he only had 130 feet of space. Gadfry. Let 4 feet hang down on each side, or cut them off altogether. The truth of the matter is, you could cut off *HALF* of the dipole and you'd lose only about 30 percent of the field strength. Since it takes 50 percent loss to drop 3dB you can do a lot of giving up before anyone can hear the difference.

What some should do is learn to talk. About a third of the guys on the air sound like they are smoking cigars and chewing peanuts at the same time. The best "speech processor" that a lot of people you hear on the air should get is plain articulation. Some of these homebrew phonetics, whew! Hmmm, was that "babble dabble" or "dabble babble" or was it "apple gabble"?

The huge number of letters that came to **Worldradio** were all forwarded to me. I was surprised to see so many of them were from fellow two-letter call holders. Thanks for welcoming me back. I hope I will always be worthy of the sentiments that were expressed.

Don't forget, you're invited to send in the findings of your experiments. Questions will be answered.

Here's a little trick: If you only have room for verticals and not much for radials of any significant nature, put up two verticals and feed them both. Now, this is not the usual phased verticals with delay lines. This is just two verticals, put up where you can at whatever distance apart you can get them. Yes, the impedance will be half that of one alone. Run the two feedlines to a "T" connector and from there to your tuner. Such a set-up should cut your loss (from inadequate ground screen) in half.

Here's something that is — as John Reddie, W7KJ, says — worth a try.

Sometime when you have nothing better to do, try this: take your spare antenna (the vertical or random wire, say), and route it through your backup receiver or transceiver. Run the audio into your right ear via stereo headphones — or split cannonballs. Mute it with a footswitch. Run the audio from the regular antenna and transceiver into your left ear. Whadda you get?

1) Dual receive — with all its interesting possibilities.

2) Dual Diversity — great for QSB conditions. (Tune both ears to the same station. There will be QSB on both ears, but often it is out-of-phase, resulting in a steadier "average" signal with improved readability. It really works!

3) All HF antennas have nulls, and Dual Diversity helps a guy find out more about his. However, be prepared for frustration when something really juicy shows up and you can only hear it in your right ear — the one you set up for 'Receive Only'!

4) Dual Diversity gives aging veterans playing-time under actual game conditions. Morale is improved, electrolytics are rejuvenated, relay contacts wiped clean, and the shack is warmer.

Rather interesting, don't you think? When it's my turn again, I'll have some data on antennas for very limited space. Next month, Lillian will share some interesting observations. By the way, how many mistakes did *YOU* spot in the latest edition of *All About Cubical Quad Antennas*?

(KNS goes by his disguise for the same reason Zorro did — to fight injustice (bad information), defend the truth, and because — with advancing age — he finds his jab is slowing down.) □

AMSAT AMS-81 Tracking System

Data for MAX (near apogee)
from 01 Feb 84/0000 K6PGX via A/O-10

Date 1984	Time (UTC) Hr. Min. Sec.	AZ (from Pasadena, CA)	EL	Range (KM)	Date 1984	Time (UTC) Hr. Min. Sec.	AZ (from Pasadena, CA)	EL	Range (KM)
FEB 01	00:00:00	289	07	39821	17	10:35:52	076	09	39674
01	22:00:01	278	19	39175	17	22:29:24	295	00	40989
02	21:15:59	274	28	38328	18	09:46:36	071	00	40205
03	20:34:31	268	36	37581	18	22:41:36	290	05	40766
04	20:12:43	265	44	37175	19	00:24:49	295	00	37848
05	19:48:25	260	52	36665	19	20:20:57	286	12	39870
06	19:32:08	255	59	36015	20	22:17:33	284	18	38205
07	17:49:57	228	70	35622	21	21:28:00	279	26	37664
08	17:40:03	210	75	35672	22	20:37:34	274	35	37152
09	17:51:50	188	79	34848	23	20:02:02	270	44	36352
10	16:33:00	135	73	35646	24	19:51:54	266	51	35994
11	16:05:24	116	67	35692	25	18:32:39	255	62	35486
12	15:40:06	104	60	35738	26	17:58:07	214	73	35011
13	14:20:51	096	48	36901	27	16:11:42	193	78	35607
14	13:45:09	090	40	37463	28	15:02:03	142	74	35386
15	12:58:00	085	31	38244	29	15:13:46	124	72	35705
16	11:36:47	080	19	39094					

Above orbital data for A/O-10 condensed from Timex/Sinclair-1000 Computation, using AMSAT AMS-81 program.

Ohm-Brew

The first winner of our newly formed "Ohm-Brew" contest is "Stella" Shaffer, N0FAF, of Cambridge, Iowa. If you'd like to know the answer, look on page 42.

Due to the quantity of entries we received since beginning the contest in our December issue, we are asking that all future entries be typed on 3" × 5" cards, for easier handling. On the backs of the cards, print or type your name, address and call sign. Entries not used will not be acknowledged. □

Clark

continued from page 1

vacancy in the office of President, the First Vice President assumes the office for the remainder of the unexpired term. Thus, Carl L. Smith, W0BWJ, is President, and Larry E. Price, W4RA, is First Vice President, until the 1984 Annual Meeting of the Board.

Vic was a champion of Amateur Radio in both senses of the word: a skilled, world-class operator as well as one of its greatest protectors and supporters. He has been described as the greatest radio amateur of the post-war era. Few would argue with that characterization.

— The ARRL Letter □

The once-feisty VK CW QRPp Club is a Silent Key.

Jack Swiney, VK6JS, the founder and driving force behind the spirited group of low-power enthusiasts Down Under, has announced he has "folded" the organization.

"Since April (1983), I have been unable to find any spare time for Amateur Radio due to an excessive workload at my place of employment, and there is no possibility in the foreseeable future that this situation will ease," he said in a letter late last year to club members.

An emergency effort to salvage the club under the same name apparently failed just before Jack was forced to fold the organization.

However, club members insist QRP'ing in Australia is far from dead. Len O'Donnell, VK5ZF, is actively promoting low-power operating, according to Colin Stevenson, VK2VVA, an officer in the old club.

Efforts will be made to resurrect the group's popular operating contest: VK versus the Rest of the World. Watch for dates and times.

•

In addition to yielding leadership of the VK CW QRPp Club, Jack Swiney also has resigned as secretary of the World QRP Federation (WQF), the umbrella group of QRP organizations from around the world.

Acting secretary is Colin Turner, G3VTT, and he will serve until a new secretary is elected.

Among those in line for the job is David B. Farris, K5NT, of Austin, Texas — an active QRPer.

WQF's membership includes QRP organizations in the United States, Great Britain, West Germany, Italy, the Netherlands, Belgium, Luxembourg, Spain, the Canary Islands, Brazil, Japan and Yugoslavia.

•

Ed Popp, K5BOT — of Austin, Texas — has been elected to a full, two-year term as president of QRP Amateur Radio Club International (QRP ARCI). The new vice president is Les Shattuck, WB2IPX, of Port Byron, New York.

Ed moved from vice president to president in the fall of 1982 to fill out the unexpired term of Thom Davis, K8IF, who resigned after more than four years in the job.

•

QRP ARCI has resumed its informal QSO parties on the first Sunday of each month — except on those first Sundays when there is a *major* international operating contest in progress.

Ed Popp, K5BOT, club president, said the informal sessions will run from 1200Z to 2400Z on the traditional QRP frequencies.

"These are *not* contests, so contacts on the new 30-meter band (10.1 MHz) will be allowed," he said. The internationally recognized QRP frequencies there are 10.106 and 10.120 MHz, he said. The former is the DX frequency.

The purpose of these first-Sunday sessions is to stimulate QRP operating in a non-contest atmosphere and at a time and place low-power operators will be looking for each other, and in which all operators can expect to find QRPers on and active, he said.

Dates for the informal sessions are 05 February, 04 March, 01 April, 06 May, 03 June, 01 July, 05 August, 02 September, 07 October, 04 November and 02 December.

The internationally recognized QRP frequencies are:

CW: 1810, 3560, 7040, 10,106/10,120, 14,060, 21,060, 28,060 and 50,385 kHz. **Phone:** 1810, 3985, 7285, 14,285, 21,385, 28,885, and 50,385 kHz. **Novice:** 3710, 7010, 21,110, 21,110 and 28,110 kHz. □

Hams attempt contact with W5LFL

Jerry Bertacchi, NM6T

Probably the largest overall favorable media coverage afforded Amateur Radio operators in the Sacramento (California) area was effected during the recent orbits of the space shuttle *Columbia*.

A group of local Amateur Radio operators from the North Hills Radio Club of Sacramento, California — seeking future publicity for the proposed acquisition of an Emergency Communications Vehicle, grasped the opportunity for local media support via the *Columbia* launch with astronaut Amateur Radio operator, Dr. Owen Garriott, W5LFL, on board.

Sacramento television stations which covered the first three attempts to contact W5LFL both on tape and using live coverage were channels 3, 10, 13 and 40. In addition, coverage was provided by radio stations KFBK and KGNR, and by the two major Sacramento newspapers, the Sacramento Bee and the Sacramento Union.

Several attempts were made to effect two-way contact with the space shuttle. Dr. Owen Garriott, W5LFL, was heard transmitting on various orbits; however, the greatest display of emotion and excitement was exhibited during orbit #40D when W5LFL was first heard by the group. Loud cheers from the radio group and the media people permeated the gorgeous sunset sky of the beautiful hilltop location at the exciting moment when Dr. Garriott's pleasant voice was initially heard.

The North Hills Radio Club is initiating a project to obtain an Emergency Communications Vehicle and is seeking support from Amateur Radio operators in the Sacramento Valley Section. All help is welcomed. For additional information, please contact the North Hills Radio Club, Inc., P.O. Box 41635, Sacramento, CA 95841-0635.

The group who attempted to contact Dr. Owen Garriott, W5LFL, is anxiously awaiting review of the on-board tapes in hopes they were acknowledged. Sacramento amateurs who participated in this historic event Dr. Owen Garriott, W5LFL, included: Bill WA6VTL and Ruth Allport, WB6YVL; Jerry NM6T and Phyllis Bertacchi, N6JNF; Cy Cochrane, WB6KXN; Doug Long, KB6XR; Ed Merritt, KF6EN; Hugh Nickless, WB6YKI; Joe Palumbo, W6ESZ; and Cass Tressl, KX6Z.

TRAFFIC

Chuck Clark, K4ZN
Assistant Director
Roanoke Division, ARRL

Valentines

February may be the shortest month of the year, but it sometimes rivals even December in the amount of traffic some of us handle. Don't write off valentines as unimportant. Unimportant they may be in terms of dollars and cents when they are sent free via Amateur Radio, but "I love you" are often the three most important words in the English language to the recipient of a radiogram.

Groups that set up display stations in shopping malls in December have found that their stations are equally welcome in early February, only the pace is somewhat more relaxed. And as has been said here many times, such operation is one of the best drills for our traffic service in preparation for the big emergency when people will be depending on us for critical communication needs.

Delivering traffic

In addition to training, such operations also have positive value in promoting public relations for Amateur Radio, something we always need. Other avocations can get along very well on their own, but ours depends on keeping its positive public image for its very existence. The FCC has the power to terminate Amateur Radio whenever it decides the Service is no longer in the "public interest, convenience or necessity." And so, anything we do to convince people that our operation is indeed a public service is important.

But our traffic operations make the desired impression only if the traffic is delivered promptly, accurately and competently. If routine traffic is garbled, delayed or lost, who will want to trust us with important messages, particularly if people's lives depend on them?

A good delivery begins with a good origination — a properly sent message with a complete address, including ZIP code and telephone number. Accurate handling en route is also important — no guessing. Ask for fills if you aren't sure you have it correctly. Count the check to be sure you haven't missed a word.

But most important is the delivering station. A competent operator here is one of Amateur Radio's most effective publicists. Gene Filipponi, AG2R, offers some thoughts on the subject in the September-October 1983 *New Jersey Traffic Bulletin:*

"How many of us, after having delivered a radiogram to someone, ask if there is a reply? How's your delivery technique? Do you enhance the image of Amateur Radio? Do they know just what's happening and who is making it happen?

"Here's how I do it. The message is for Mr. and Mrs. Smith. The telephone rings. A lady answers. 'Hello, Mrs. Smith?' 'Yes.' 'My name is Gene and I'm an Amateur Radio operator here in Parsippany. I have a radiogram for you and Mr. Smith from Uncle George in Paducah.'

Now what have I done? She has my name and town that I'm from, which often is the same as hers. She finds I'm a ham operator and am not trying to sell her anything. She knows I have some connection with her Uncle George in Paducah and thus can't be all bad.

"In my opinion, you must let them know all pertinent information immediately, so they will know what's going on. Try to eliminate as much confusion as possible with your opening statement.

"The response is usually positive. So I continue by reading the text of the message and the signature. Then I offer to read it again if they would care to write it down or whatever. Usually they decline. Then I try to elicit a reply by asking, 'Would you care to reply to Uncle George by radiogram? All I need is the name, address and phone number so the ham there in Paducah can deliver it.' If they hesitate, I'll offer, 'Maybe just a thank you for the message.' This gives a suggestion for a reply, and they almost always will give you more. All this takes but a few minutes, unless they really get into it and begin asking you gobs of questions. This usually happens when I'm phoning out of my area and it's costing me dineros. I talked to a guy for 20 minutes once.

"What you are doing is building up public relations for ham radio, traffic handling, and you often make lasting friends. One family was so pleased by our service that I received a thank you note with an offer for me and my wife to sit with them by their fireplace and sip some cider. One lady and her husband joined me and a bunch of other ham friends for breakfast. I met Hawkeye Bill delivering a message. We recruited a fellow into our RACES group. He took us sailing. All because I delivered a 'Your QSL awaits an SASE' to his address because his phone was unlisted.

"So you can see how important delivering a radiogram can be. Never take delivery lightly. Always deliver each message as though it were your most important delivery. Be clear, concise and to the point."

I'll only add that we must be careful not to accept anything that can be construed as compensation for handling the message. It's sometimes hard to convince people that the service is absolutely free, no strings attached. Unfortunately, bitter experience causes many to be skeptical.

QNZ: Get on frequency!

It's often more the manufacturer's fault than the operator's, but many of our nets are less effective than they should be because some stations are off the net frequency. As a result, the net occupies more space than it needs, and stations too far off frequency are not heard. The problem is partly because many amateur-band transceivers do not make adequate provision for accurate frequency spotting, for setting the transceiver exactly on the frequency of the net control station.

On single-sideband, almost any transceiver can be brought on to the proper frequency if the operator is careful to turn the dial slowly and set it at the exact point where speech sounds normal. Of course, with some rigs, you hope it stays there and doesn't drift off so that you have to keep one hand constantly on the tuning knob. If people tell you they are having difficulty copying you, it may well be because you either didn't set your frequency accurately in the beginning or you have drifted off.

We amateurs have it easy from a legal standpoint. We only have to make sure we are within the amateur band. Commercial sideband stations are required to maintain frequency within 20 Hz. Only operators with a general radiotelephone license or a first- or second-class radiotelegraph license are permitted to adjust a transmitter's frequency. Others must take it as it is or call in a properly licensed operator to correct it. MARS stations are in between. They are required to maintain the same frequency tolerance, but are allowed to adjust their transmitters. More about that later.

It's on CW that the shortcomings of many transceivers cause trouble. Many of them are designed with use on sideband only in mind, and then provision for CW operation is added as an afterthought. In some, you just have to guess where your signal will be when you transmit. The frequency offset is fixed, and you have no indication of how much it is.

With the 2 or 3 kHz passband of a sideband rig, your transmitted signal could be anywhere. To reduce interference, many operators use sharp filters on CW, and if your signal is outside the passband of the filter, you won't be heard. If the net control station uses a 250 Hz filter and your receiver passband is 2500 Hz, the odds are nine to one that you won't be heard if you transmit.

One way to find out what frequency to set your rig at is to listen to the audio tone that you hear when stations answer your call. The average frequency should be quite close to yours, so if you set your rig to give the same pitch when receiving, your transmitted signal should be close enough.

FATTO

This has nothing to do with obesity. FATTO is short for Frequency Adjusting Two-Tone Oscillator. It's used extensively by MARS stations to help set sideband rigs on the proper frequency.

Two audio tones, one an octave above the other — for example, 800 and 1600 Hz — are fed into the control station's transmitter (or some other transmitter known to be on frequency). The other stations adjust their rigs until the audio tones are exactly one octave apart. Piano or organ tuners should have no difficulty, as they do the same thing in their work.

If you listen to the FATTO you will hear beats between the two tones. You adjust your rig until you hear a zero beat. Some operators have difficulty hearing that beat; for them, the addition of a rectifier diode in the speaker or headphone circuit will make the beat unmistakably clear. Actually, if your ear is good enough to zero-beat the FATTO signal without the diode, you should get almost as good results on voice signals, because you can adjust for zero beat on voice signals too.

In both cases, you have a complex tone consisting of fundamental and harmonics, and you can't get an accurate reproduction without beats between the various harmonics unless the local carrier frequency is correct.

RIT

One of the common offenders in our efforts to get on frequency is the *RIT control* (also know as *clarifier, receiver offset*). If your receive frequency is offset from your transmit frequency, all the adjusting in the world won't help put you on the proper spot. Be sure that control is set on zero or off, and if there is an on-off switch, be sure that when it is off, the receive and transmit frequencies are actually the same. If this is not automatic in your rig, the instruction book should give directions for aligning it.

This control is handy for net control stations, allowing them to bring in off-frequency stations without moving the transmitter from the net frequency. That's a cardinal rule for net control stations: don't change your frequency; make the net stations come to you. The

(Continued on next page)

This month I will continue with some observations and thoughts concerning SSTV activities on the air.

As this is written in early December, I have already made contact on 10 and 20 meters with many long-time SSTV friends who have not been too active during the summer and early fall. This is the case with many SSTVers, as well as amateurs in general. During nice weather, they are outdoors more — not holed up in their shacks. As cold weather comes, they hibernate into the radio room.

It is interesting for me to note the SSTV equipment operating on the air and the changes that have occurred over the past year or so. We conducted a six-month SSTV survey last winter and spring. The results of that were published in my June 1983 column. In that survey, we found only a few of the German SC-422 scan converters being used in the States.

Since that time, the U.S. distributor for that unit was dropped and Volker Wraase is handling sales directly from Germany. There is no sales or service outlet in the United States anymore. No new SC422's in the United States have been heard in the last six to eight months.

Syd Horne, VE3EGO, was manufacturing color SSTV conversions to the Robot 400, called Colorscan 403. Only two or three of these conversions were known to be operating in the United States and several in Canada. Syd has not been heard on the air in many months, and no new Colorscan 403's have been heard in at least eight months. There is presently only one 403 known to be operating in the United States. Another 403 has been removed and the 400 restored to its original form.

I currently have no figures available, but there has been an increase in the number of TRS-80 Color Computers and Microcraft Videoscan 1000 scan converters since our survey was published.

The Color Computer is used for both B&W and color SSTV. A camera interface to snatch video into the system is still not available. Video pictures are loaded into the system off the air, from tape, or from another scan converter in the shack.

A growing number of SSTVers are sending high-resolution B&W SSTV pictures using the Microcraft Videoscan 1000. A color conversion for that unit is expected out soon.

I mentioned in my December column that Sam Mormino, WA7WOD, of Interface Systems was busy in other ventures and not heard on the air much anymore. I am surprised that I have not heard any new 3000C conversions on the air in many months. Usually, someone with a new color conversion gets on the air and makes it known what he has. Sam did a ton of advertising in amateur magazines awhile back and now seems to have disappeared.

There are many new 400C conversions to the Robot 400 being heard on the air. They have a distinctive two-tone first sync. A lot of Robot color is now heard on the air. There has been quite a delay in the introduction of the new Robot 450C and 1200C scan converters. Hopefully, as you read this, 450C scan converters will be available.

There are a couple other people who have written about SSTV, and many of you have asked me if I work them or keep in touch with them. Dave Ingram, K4TWJ, was the former author of this column. Dave now writes a column for **CQ Magazine**. He recently changed and expanded the emphasis of that column. He writes about all aspects of Amateur Radio and very little about SSTV anymore. I've worked Dave many times, but not since last spring. I talked with him on the phone a couple months ago and he is now working for Long's.

I've worked Mike Stone, WB0QCD, of **A5 Magazine** several times on 40 meters. We have corresponded and talked on the phone many times, also. Mike got fed up with SSTV around the summer of 1982. In an article he wrote in October 1982 **A5 Magazine**, he wrote off SSTV as not being fun anymore.

I've checked with many SSTV operators, and Mike has not been heard on SSTV since that time. As far as I know, I am the only active SSTVer writing a regular column about SSTV in the United States.

Dayton Hamvention

This will be the final chance you will have to get a hotel room at the Holiday Inn North for the 1984 Dayton Hamvention. 31 January is the deadline to get your reservation in. As reported in last month's column, I have a block of rooms for SSTVers at this hotel. These rooms are made available as a convenience to SSTVers on a first-come basis. I make nothing on the deal. I pay the same price for my room there.

The 1984 Dayton Hamvention will be 27-29 April. All known SSTV meetings, get-togethers and parties will be held at the Holiday Inn North. They have an indoor heated pool and Holidome, and are very close to the Hara Arena Hamvention site. There is free shuttle bus service from the hotel to the Hamvention site.

If you want to reserve a room, a $50 deposit is required. You may use your American Express card number in lieu of the deposit check. Make checks payable to Holiday Inn North, but *SEND THEM TO ME*. I will forward all reservations to the hotel, and you will receive written confirmation from them.

Your deposit is refundable if you cannot go at the last minute, but 24-hour notice required. One person in a single bed room is $37 per night. Two people in two bed room is $50 per night.

Send me your deposit check or American Express card number along with the following information: your name and call sign; your address, city, state and ZIP; your phone number; the day you will arrive; 1 bed or 2 bed room; and how many nights you will stay.

Send all of the above to me before 31 January 1984. Ron Flynn, KB8LU, Rt. 2 Box 204 67th St., Bangor, MI 49013. If you have additional questions, you may call me at (616) 427-8166. □

Traffic

(continued from page 37)

only exception is if you have to move the net to avoid interference.

One final suggestion for handling off-frequency stations on CW nets: use stereo headphones, with one side connected directly to the audio output of your receiver, and the other connected through a sharp audio filter. In that way, you will hear stations off frequency off to one side, while the net frequency will seem to come from dead ahead. You will be able to hear what's going on outside the net frequency, but there will be less chance that activity outside the net will disturb you.

Or you can use a switch to connect both phones to the filter to switch out the interference entirely, if it gets too bad. □

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

ATV transmitter/ downconverter

P.C. Electronics has upgraded their TC-1 "all-in-one box" 420-450 MHz full color ATV unit with some new features, plus many options — now standard — that were once offered at an additional cost. The best news is that the TC-1 Plus has not increased in price.

With more and more amateurs using computers and VCRs on ATV, separate video and audio inputs were added to the existing camera and mic inputs. This allows front panel switching back and forth between the camera and computer, or transmitting both the VCR audio and voice-over commenting using a microphone. It has made learning Basic computer language over the air, and retransmitting the space shuttle video and audio, easy.

Capability for external 13.8VDC in addition to the built-in AC supply has been provided for those who want to go mobile or portable on battery power during Field Day, emergency services, CAP searches, parades, marathons or other public service events.

A video monitor output is now provided to enable you to see your own picture exactly as it is transmitted to better set modulation levels, lighting, etc. This is accomplished by the built-in diode detector on the transmitter RF power output stripline, which then connects to the composite video monitor line driver circuit.

The TC-1+ has the new TXA5-5 exciter/modulator, which features two frequency plug-in crystal switching with just the addition of an spst switch. Also, the built-in sync stretcher and hi/lo power switch capability enable superior stable color video if a higher power linear amplifier, such as the Mirage 100 watt D1010N, is added later or run barefoot at its greater than 10 watt PEP RF output.

The 420-450 MHz tunable downconverter has the low-noise NE64535 preamp stage to dig out the weak signals. It acts like a super hot UHF TV tuner, but covering only the 70cm ham band, when connected to your TV set antenna input and set for channel 3 or 4. Both color video and sound live action amateur television (ATV) are available on your TV set, just as the broadcast stations provide. The standards are the same.

With the TC-1+, the only other items necessary to get on ATV is a good 70cm antenna and low loss coax, your TV set, and any device with a standard 1V p-p composite video output commonly found on black and white CCTV cameras, home video color cameras and VCRs, computers, RTTY/video converters, etc. A Technician Class or higher Amateur Radio license is required for operation and purchase from P.C. Electronics.

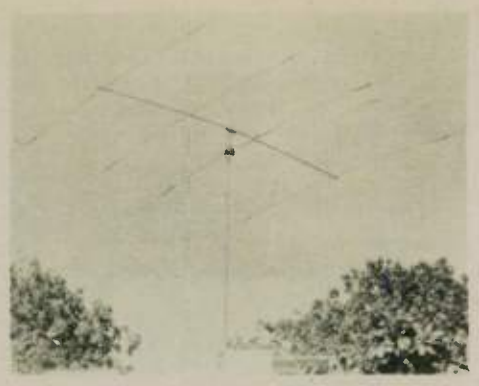
Call or write for more information and a complete catalog of ATV equipment, antennas, cameras, modules and accessories. P.C. Electronics, 2522 Paxson Ln., Arcadia, CA 91006; (818) 447-4565. □

Triband beams

Palomar Engineers announces the availability of two triband beams. Model DX-33 has three elements on 10, 15 and 20 meters. Model DX-43 has four elements.

These antennas have long been a favorite of European DXers and are being made available in the United States for the first time.

Designed for use with solid-state transceivers, the antennas feature low SWR and wide bandwidth. Gain and front-to-back ratio are particularly good. Each trap is individually sweep-tested at the factory for uniform performance. Stainless steel "U" bolts are used throughout.



For more information, contact Palomar Engineers, 1924-F West Mission Rd., Escondido, CA 92025; (619) 747-3343. □

New ICOM models

ICOM introduces three exciting new models of amateur equipment which utilize ICOM's state-of-the-art technology and engineering: the *IC-27A* 2-meter 25-watt mobile unit; the *IC-04A* and *IC-04AT* 440MHz hand-held transceivers; and the *IC-271H* 100-watt 2-meter base station transceiver.

IC-27A

ICOM presents an important breakthrough in 2-meter mobile communications, the IC-27A. Measuring only 1½" wide by 5½" high, the compact IC-27A contains an internal speaker, making it easy to mount.

Although the IC-27A is the most compact 2-meter mobile unit on the market, it has not sacrificed any features. Standard features include 25 watts of output power, 32 PL frequencies, 10 full-function tunable memories, scanning of memories and the band, priority scan and a microphone which includes a 16-button touchtone pad for easy access to a repeater or dialing through to an autopatch.

An optional speech synthesizer is also available, to verbally announce the receiver frequency of the transceiver through the simple push of a button.

The IC-25A, measuring 2" wide by 5½" high, will continue to be available for those individuals preferring a 25-watt 2-meter mobile unit with larger operating knobs.

IC-04A and IC-04AT

ICOM is proud to announce the latest in 440 MHz hand-held transceiver technology — the IC-04A and IC-04AT. Representing the best in a multi-function, multi-feature hand-held for 440-449.995 MHz, the IC-04A and IC-04AT feature frequency entry, control functions and 32 PL tones which are controlled by the 16-button pad on the face of the radio. Also included are priority, scanning (both of memories and programmable band scan) and DTMF (04AT only).

For scanning, 5 kHz increments are front panel selectable. Ten memories with internal lithium battery backup give the ultimate in flexibility for channelizing operation for easy access to most-used channels. A custom LCD readout with S-meter is unique to the ham industry.

The IC-04A and IC-04AT have the same distinctive styling, control features and functions of the IC-02A(T), and utilize the existing accessory line available for the IC-2A and IC-2AT, plus new accessories such as long-life and high-power battery packs.

IC-271H

For the ultimate in 2-meter communications, ICOM presents the IC-271H transceiver, with a high dynamic range receiver and a 100-watt transmitter. Operating from the IC-PS30, IC-PS15 or the internal IC-PS35 (optional), the IC-271H integrates all the advanced functions of the latest CPU-controlled radios.

Standard features include 100 watts of power, 32 built-in subaudible tones, 32 full-function tunable memories, 10 Hz PLL locking, easy-to-read fluorescent display, scanning, mode scan and an easy-to-operate size of 11¼" wide by 4⅛" high.

To facilitate the operation of the IC-271H, ICOM has incorporated a duplex touch switch, all-mode squelch, receive audio tone control, S-meter, center meter, seven-year lithium battery memory backup, 24-pin accessory connector and microphone.

Optional features include a switchable preamplifier, CTCSS encode/decoder (encoder is standard), computer interface and voice synthesizer.

For information on prices, contact ICOM, 2112-116th Ave. NE, Bellevue, WA 98004; (206) 454-8155. □

2-meter hand-helds

ICOM is extremely pleased to announce the IC-02A and the IC-02AT 2-meter hand-helds. These compact multi-featured hand-helds are the *same compact size* as the IC-2A series, but have features found on no other amateur hand-held.

The IC-02A and IC-02AT are designed to be compatible with all existing IC-2A accessories plus new accessories that will make them unique. An important feature of the IC-02A series is that it features 32 PL tones built into the unit *as standard*. These tones are programmable from the front panel pad, and may be used with any frequency selected, or may be stored in memory and recalled along with the frequency at any time.

Any frequency on 5 kHz spacing in the 2-meter ham band may be called up in the IC-02A. All frequency entries as well as control functions for memory, scanning, etc., are selected by the 16-button pad on the face of the radio. Included are priority watch, scanning of both memories and programmable band scan, and DTMF on the IC-02AT model. The unit features 10 memories which store frequency, PL tone, offset and offset direction, and an internal lithium battery backup. The priority channel is a unique feature to the IC-02A and IC-02AT, as well as the custom LCD readout with an S-meter function, which is unique to the ham industry.

The IC-02A series will run at 3 watts with the standard BP3 battery pack, or at 5 watts with

an optional high power battery pack. A long-life battery, 8.4 volts at 800mA, will be available to double the working time of the standard 3 watt output unit. Batteries may be charged a variety of ways.

The IC-02A series has an environmentally sealed case with "O" ring seals to protect it against dirt and moisture. A heavy-duty aluminum back provides heatsinking for the 5 watts of power. A power connector is supplied on the top of the unit. Twelve volts applied there will power the unit as well as charge the battery pack.

For further information, contact ICOM America, Inc., 2112-116th Ave. NE, Bellevue, WA 98004. □

Software

Base 2 Systems has released new software which — for the first time — enables shortwave listeners and Amateur Radio operators to predict band openings at the start of each day, using their personal computers instead of one- to three-month-old estimates from periodicals. The program also computes beam heading and distance to a target.

Dubbed "MUFPLOT" because it plots Maximum Usable Frequency, the program is easy to use and extremely versatile. It has won critical acclaim from purchasers and is a contender for use as the propagation reference of one national magazine.

The selection of a "target" for a graph exemplifies its flexibility. MUFPLOT will accept specific call letters for DX stations, as well as inputs like the U.S. prefixes, international prefixes and abbreviations of U.S. state names. Uncommon locations, ships at sea and DXpeditions may be accessed by inputting a specific latitude and longitude. Entering just the letters "DX" will cause the program to plot to eight regions of the world — an especially nice feature for those who want to quickly sum up worldwide conditions for the day.

The program comes with a 28-page User's Guide when Commodore 64 and Apple versions are ordered. The "Guide" tells not only how the program functions, but contains explanations of propagation mechanics, suggested readings, and a number of charts and illustrations for the serious student of propagation.

Computation of both MUF and LUF begins by inputting daily solar flux reports from WWV or others. The 3 to 30 MHz spectrum, with paths of from 250 to 6,000 nautical miles, fall well within the useful range indicated by U.S. Naval testing of the original analog.

Output to either a video display or printer consists of a graph and text. A special effort was made to design a program which would permit users to select almost any printer for hard copy.

The new software is available now, for the Commodore VIC 20 with 16K expansion at $7.95 tape and $9.95 disk. This version doesn't compute LUF or have the 28-page booklet. Commodore 64 and Apple versions of MUFPLOT have the booklet, plot both MUF and LUF, and execute at a much faster speed than the VIC version. Band openings on these two versions are very clearly shown as black shaded areas between the MUF and LUF. Band closings appear in red (gray on B&W monitors).

64 versions cost $27.95 tape and $29.95 disk. Apple versions are available on disk only at $29.95. All versions require a $2 shipping fee for orders to North American countries and $5 for orders outside of North America. Orders should be in drafts of U.S. funds. Visa and MasterCard are acceptable.

Write to Base 2 Systems, 2534 Nebraska St., Saginaw, MI 48601. □

Pass it on . . . WORLDRADIO

Two-Land QSO Party

The 1983 Two-Land QSO Party — sponsored by the Gloucester County ARC (New Jersey) — will be held 11-13 February. This will be the sixth anniversary of this event. The time periods for the contest are as follows:

2100 GMT, Saturday, 11 February to 0700 GMT, Sunday, 12 February. 1300 GMT, Sunday, 12 February to 0300 GMT, Monday, 13 February. There is no time limit to the operating times listed, but there is a mandatory six-hour rest period from 0700-1300 on Sunday. The same station may be worked once per band and mode, and mobiles and portables each time they change counties.

Exchange: RS(T), county and state for Two-Land stations; RS(T) and QTH (state, province or country) for the rest of the world.

Scoring: Each QSO is worth 2 pts.

Multiplier: For Two-Land stations, the number of states + provinces + DX countries (DXCC countries list OK) + Two-Land counties (per band) X number of QSO points. For the rest of the world, multiply number of QSO points X number of Two-Land counties worked (possible 83 maximum).

Frequencies: *CW* — 1805, 3560, 7060, 14060, 21060, 28060. *SSB* — 1815, 3900, 7230, 14280, 21355, 28600. *Novice* — 3725, 7125, 21125, 28125.

Awards: Certificates to the top scoring station in each Two-Land county, each state, province and DX country. Second and third place awards will be issued where justified. Awards also for top mobile, portable, multi-operator, Novice and club.

Logs with over 200 QSOs should include dupe sheets. Indicate each new multiplier as worked. Also include a summary sheet and usual declaration. For results, include a large SASE; DX stations include large SAEs. Send logs to: Dennis Sandole, WB2GES, GCARC Contest Committee Chairman, 301 Portsmouth Ave., Cherry Hill, NJ 08034. □

3rd Annual RTTY World Championship Contest

The **RTTY Journal** and **73 Magazine** announce the upcoming 3rd Annual RTTY World Championship Contest to be held from 0000Z to 2400Z on Saturday, 25 February.

The same station may be worked *once on each band.* Crossmode contacts do not count. Single operator stations may work 16 hours maximum, while the multi-operator stations may operate the entire 24-hour period. Off times are *no less* than 30 minutes each and *must* be noted in your log(s).

Operator classes: (A) Single Operator, Single Transmitter; (B) Multi-operator, Single Transmitter.

Entry categories: (A) Single Band; (B) All Band, 10-80 meters.

Exchange: Stations within the 48 continental U.S. states and Canada must transmit RST, and state, province/territory. All others must transmit RST and consecutive contact number.

QSO points: 5 QSO points for contacts with W/VE stations located within the continental United States and Canada. 10 QSO points for all other contacts.

Multiplier points: *1 multiplier point* is awarded for each of the 48 continental U.S. states, (a District of Columbia contact may be substituted for a state of Maryland multiplier), Canadian provinces/territories and DX countries worked on each band (excluding United States and Canada).

Final points: Total QSO points × total multipliers = claimed score.

Contest entries: Entries must include a *separate* log for *each band,* a dupe sheet, a summary sheet, a multiplier check list, and a list of equipment used. Contestants are asked to send a SASE to the contest address for official forms.

Entry deadline: All entries *must* be postmarked no later than 15 April 1984.

Disqualifications: Omission of the required entry forms, operating in excess of legal power, manipulating scores or times to achieve a score advantage or failure to omit duplicate contacts which would reduce the overall score more than 2 percent are all grounds for immediate disqualification. Decisions of the contest committee are final.

Awards: Contest awards will be issued in each entry category and operator class in each of the U.S. call districts, Canadian provinces/territories as well as in each DX country represented. Other awards may be issued at the discretion of the awards committee. A minimum of 25 QSOs must be worked to be eligible for awards.

Contest address: Enclose an SASE to: RTTY World Championship Contest, c/o the RTTY Journal, P.O. Box RY, Cardiff, CA 92007. □

YL - OM Contest

All licensed men and women operators throughout the world are invited to participate. The **Phone** section lasts from Saturday, 11 February, 1800 UTC to Sunday, 12 February, 1800 UTC. The CW section lasts from Saturday, 25 February, 1800 UTC to Sunday, 26 February, 1800 UTC.

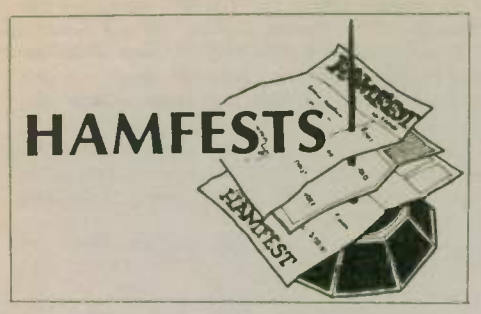
Procedure: OM's call "CQ YL" and YL's call "CQ OM".

Operation: All bands may be used. No cross-band operation. Net contacts and repeater contacts 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 for SASE to YLRL vice president.)

Scoring: A) Phone and CW will be scored as separate contests. Submit separate logs for each contest. B) 1 pt. for each station worked, YL to OM or OM to YL. C) Multiply the (*please turn to page 41*)



Iowa

The DAVENPORT RADIO AMATEUR CLUB, Inc. will hold its 13th annual hamfest on Sunday, 26 February, from 8:00 a.m. to 4:00 p.m. at the Davenport Masonic Temple on Highway 61, Brady and 7th Streets in Davenport, Iowa. Advance tickets are $2 and $3 at the door. Table rental is $7 each with an additional charge of $2 for electrical hook-up.

Table reservations and advance tickets are available by writing to: Dave Johannsen, WBØFBP, 2131 Myrtle St., Davenport, IA 52804. □

Ohio

The HAMILTON COUNTY AMATEUR RADIO PUBLIC SERVICE CORPS announces the 4th Annual Ohio State Convention and Flea Market. The "Cincinnati ARRL '84", to be held 25-26 February, will include such activities as forums, meetings, Wouff Hong, women's activities, banquet, hospitality suite (Friday and Saturday nights) and more — a sure cure for "cabin fever."

The $5 convention registration includes all convention awards. Flea market is $4 per space for two days — ham and electronics items, only.

For more information, write to Cincinnati ARRL '84, P.O. Box 11300, Cincinnati, OH 45211, or phone (513) 825-8234. Vendor and exhibitor inquiries invited. □

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THE MANSFIELD MID-WINTER HAMFEST/AUCTION will be held Sunday, 12 February, at the Richland County Fairgrounds, Mansfield, Ohio.

Prizes, auction and flea market in large modern heated buildings. Doors open to the public at 8:00 a.m. Tickets $2 in advance, $3 at the door. Tables $5 in advance, $6 at the door. Half-tables available.

Talk-in on 146.34/94.

For additional information or advanced tickets/tables, send SASE to Dean Wrasse, KB8MG, 1094 Beal Rd., Mansfield, OH 44905, or phone (419) 589-2415. □

Minnesota

The Midwinter Madness Hobby Electronics Show — sponsored by the ROBBINSDALE ARC — will be held Saturday, 25 February, 9:00 a.m. to 3:00 p.m., at Totino Grace High School, 1350 Gardena Ave. NE, Fridley, Minnesota.

Tickets are $3 in advance, $4 at the door. Manufacturers and dealers of ham, computer, R/C, etc. will be featured, as well as a flea market and seminars.

For more information, contact Robbinsdale ARC, P.O. Box 22613, Robbinsdale, MN 55422; (612) 533-7354. □

Contest

(*continued from page 40*)

number of QSOs by the total number of different ARRL Sections and countries worked. D) Contestants running 150 watts or less on CW and 300 watts PEP or less on SSB, at all times, may multiply the results of (C) 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 and be postmarked by *14 March 1984,* and received no later than *4 April 1984,* or they will be disqualified. *Please send logs to Marilyn Backys, WB9TDR, 3930 N. Firestone Dr., Hoffman Estates, IL 60195.*

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

Awards: *1st place Phone:* YL Cup; *1st place CW:* YL Cup, OM Cup. 2nd and 3rd place YL and OM winners in each contest will receive certificates. The winner of the Phone contest cup is also eligible to win the CW cup. Certificates will be awarded to the high YL and OM Phone and YL and OM CW winners of each U.S. and VE call district and country.

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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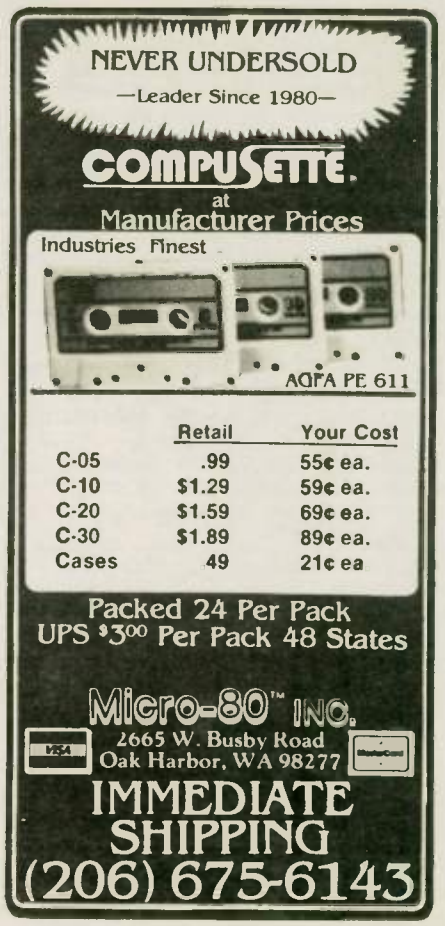

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