

Worldradio

JAMES MAXWELL W6CUF
P O BOX 473 000588 0000
REDWOOD ESTATES CA 95044

June 1981 • Year 10, Issue 12 • 80¢

Love Boat Station

Dick Barrett, W6CFK

Six Californians and a visitor from Northern Ireland are believed to have established a "first" by operating a ham station for two weeks on a cruise ship, the *Island Princess* — one of the vessels of "Love Boat" TV fame.

The ship was bound from San Juan, Puerto Rico to Los Angeles via St Thomas, Virgin Islands; Caracas, Venezuela; Curacao, the Panama Canal, Acapulco and Cabo San Lucas.

The operators were Gene and Jeanie Clark, W6DQH and WA6GUA of Los Angeles; Jim Walden, W6ESJ, of Fullerton; Dick Brinkman, N6AYV, of Simi; Chuck Smallhouse, WA6MGZ, of Los Altos; Dick Barrett, W6CFK, San Jose — all Californians; and Ted Wilson, GI3CWY, of Belfast, Ireland who happened to be aboard with his wife and identified himself when he saw the station in operation on the Sun Deck.

Some 1500 contacts were made on all continents using a Kenwood TS-820S into a Hustler four-band trap vertical lashed to a rail on the deck above.

The idea for an Amateur Radio cruise originated with Chuck's wife — Nancy Smallhouse, a travel agent — who supplied the rig, and was facilitated by the



Chuck Smallhouse, WA6MGZ, operates the "Love Boat" Amateur Radio station.

fact that Dick Brinkman is a vice president of Princess Lines. Dick stayed with the group as far as Los Angeles to make sure everything was going smoothly and then flew home as his duties required.

The station observed quiet hours when

the ship was in port and for two hours after sailing times. A special QSL is being printed. The operators all used their own calls. □

Show your support

Amateurs are urged to send a QSL card to Timothy E. Worth, Congressman, Room B-333, Rayburn Office Building, Washington, D.C. 20515 to show their support of HR-2205. This is the document concerning the continuation of using volunteers to administer Novice testing, and the inception of volunteer spectrum monitoring. Please note on your QSL card (or regular post card if you do not have a QSL card) that you appreciate his support of Amateur Radio and urge him to support HR-2205.

For a copy of HR-2205, please send an SASE to Ray Frost, WA6TEY, 14421 Hope St., Garden Grove, CA 92643. □

Bill S 929 favorable to amateurs

Senator Barry Goldwater, K7UGA, has introduced a bill, S 929, which would amend the Communications Act with respect to Amateur Radio and matters affecting private land mobile and fixed stations. The bill was co-sponsored by Senators Packwood and Cannon, chairman and ranking minority member respectively of the Commerce Committee and by Communications Subcommittee members Schmidt, Pressler, Stevens, Hollings and Inouye. The amateur portions of the bill were suggested by ARRL. Similarly, we understand that the other items in the bill in general reflect the desires of land mobile and fixed station users in the private sector.

Additional information will be available from ARRL Headquarters. A self-addressed envelope would be appreciated.

WARNING on proposal

Ero Erickson, KA9DYS, Quarter Century Wireless Association

We can't spare the horses to get after the FCC, who is aiming to destroy all of Amateur Radio, like tying it to the tracks and having the commercial express finish it off. They do play tricks with the proposed new rules.

In the guise of simplifying the understanding of Part 97 of the rules covering amateur regulations, they propose to eliminate the Basis and Purpose of Part 97 and call it "General Information" — thereby eliminating the purpose.

The new paragraph reads like a course in Sand Box 101B directed to a third grade level reader. Don't you feel like a smelly plot is brewing to weaken Amateur Radio? The language is an insult to the thousands of amateurs among whom are doctors, scientists, skilled researchers and technicians. They would be ashamed to show this section as a qualification of their intentions in this service. Whatever type of lint head who wrote it, certainly isn't a true amateur in heart. References to "they" indicate an outsider. The word emergency service has been deleted entirely.

Check for yourself: "They use the service *only* (our emphasis) for their personal

satisfaction —." What about disaster aid and the many public spirited things amateurs do?

Consider this: Unknown years later when frequencies become even more scarce for the "for money" people, where would the commercials look for space?

You bet — in the amateur bands! I envision FCC hearing where the moneybags would haul our NEW Part #97.1 and declare, "See, they — the hams — have no purpose. The rules themselves say it's only for personal satisfaction and not in the public interest.

I'm for leaving Part #97.1 as it is. You should too. You should write your congressman, senator and ARRL, and also file an objecting statement with the FCC. **DO IT BEFORE 19 JUNE** which is the closing date for comments.

—QCC News

Ero Erickson has been an amateur since 1931 and has worked with radio all his life. For 30 years he was a CW operator/supervisor for the Illinois State Police in Chicago. At 71 years old, KA9DYS is affiliated not only with QCWA, but also with ARRL, Old Old-Timers, Morse Telegraph Club, RCA (Fellow/Director), and Society of Wireless Pioneers. □

Subpart A — Amateur Radio (AR) Service

EXISTING RULE
§ 97.1 Basis and purpose.

The rules and regulations in this part are designed to provide an Amateur Radio service having a fundamental purpose as expressed in the following principles:

(a) Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service particularly with respect to providing emergency communications.

(b) Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art.

(c) Encouragement and improvement of the Amateur Radio Service through rules which provide for advancing skills in both the communication and technical phases of the art.

(d) Expansion of the existing reservoir within the Amateur Radio Service of trained operators, technicians and electronics experts.

(e) Continuation and extension of the amateur's unique ability to enhance international good will.

PROPOSED HEADING
General Information on the AR Service

PROPOSED RULE
§ 97.1 (AR Rule 1) What is the Amateur Radio (AR) Service?

The AR Service is for persons interested in the technical side of radio communications. They use the service only for their own personal satisfaction and get no financial benefit from its use. They learn about radio, communicate with other operators around the world, and find better ways to communicate by radio.

EXPLANATION

This rule replaces § 97.1. We rewrote the rule in simple language, using the definition of the service contained in Article 1 of the ITU Radio Regulations. It defines the Amateur Service as follows:

"A service of self-training, intercommunication and technical investigations carried on by amateurs, that is, by duly qualified persons interested in radio technique solely with a personal aim and without pecuniary interest."

EXISTING RULE
None.



Worldradio™

is published monthly by
Worldradio, Inc.
Offices at 2120 28th Street
Sacramento, CA 95818 USA
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June 1981

Vol. 10, No. 12

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.

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Controlled circulation postage paid at Sacramento, CA.

Vets get new station

Lenore Jensen, W6NAZ

Amateur Radio staged a preview of a new Amateur Radio station on 24 February, at the Veterans Administration Medical Center, Sepulveda, in the San Fernando Valley.

Sparked and installed by Richard Corvi, N6CMQ, the station is the result of long planning, in cooperation with the administrator, medical staff and recreation department.

"We plan to give classes and hope some of our patients will gain licenses," said Rich, who is with the Biomedical Engineering staff of the huge organization.

"Also, this station will become an important center for ARES of the Valley. And situated on high ground, we should cover a wide area with VHF."

The low-band station was donated by John Gallo, KB6WT. It is a Kenwood TS900 with accessories. Nancy Ferguson, KA6MVW, made a most generous monetary gift, part of which has been used to provide a KLM Tri-bander with rotor, cable and necessary wires. Additional equipment is planned. The formal opening of the station will occur in mid-March, with special events planned, such as QSOs with the Pentagon Radio Club and other VA hospitals.

"We welcome volunteer assistance in maintaining the station and in teaching, please remember!" said Rich.

Rich also requested donations of old, used 2-meter gear for the use of some patients who already have licenses but no equipment. "If it doesn't work, I'll try to repair it," he said. "These fellows certainly would enjoy using, or just listening to, 2 meters as they sit in wheelchairs!"

Manny, not Danny

On page 17 of our May issue, we printed a story about Danny Moto — former member of the Dodgers. Unfortunately, we were misinformed about Mr. Moto's first name. His name is Manny, not Danny. We were informed of this error by Archie Willis, W6LPJ, president of the 1981 Dodgers Booster Club. □

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Swiss pioneer turns 80

John G. Schmid, WA6PGA/HB9CDP

What Hiram Percy Maxim was to Amateur Radio in America, Heinrich Degler, HB9A, was and is to Swiss amateurs. He celebrated his 80th birthday last November in his home near Zurich, and is still active on and off the air. In HB9-land, he isn't just "a" pioneer, he is THE pioneer of that country's Amateur Radio.

He has continuously held his license since April 1926 (the first such license ever to be given out by the authorities), was the prime and principal mover in founding the USKA (Union Schweizerischer Kurzwellen-Amateure, equivalent to our ARRL), was its first president, and has been its honorary president for a long time. He achieved the first two-way CW contact between HB (Switzerland) and ZL (New Zealand), which are, essentially, antipodes. This QSO was quite an accomplishment at that time.

His reliable radio liaison with an airborne Professor Auguste Piccard on the occasion of the historic 1932 balloon flight into the stratosphere was carefully arranged and became a complete success. All his equipment used in those days was home-brew.

We wish the octogenarian not only a very happy (belated) birthday, but many happy returns as well — long may he haunt the air waves! □

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One small step for man . . .

Man's first walk on the moon will be commemorated once again this year, on 18 and 19 July 1981, at the Neil Armstrong Air and Space Museum in Wapakoneta, Ohio (the hometown of Neil Armstrong, first man on the moon). This will be the 12th anniversary operation of this special event.

Two stations will be operated from 9:00 a.m. on Saturday, 18 July, to 8:00 p.m. on Sunday, 19 July 1981. The following frequencies will be used, as far as propagation will allow:

40 meters CW — 7.075 to 7.125 (to help the Novices); 40 meters phone — 7.250 to 7.300; 75 meters phone — 3.950 to 4.000; 20 meters CW — 14.1 ± 10 kHz; 20 meters phone — 14.300 to 14.350; 15 meters phone — 21.400 to 21.450.

The call sign WD8RVZ will be used.

A commemorative QSL will be available; SASE is required. U.S. and Canadian amateurs QSL direct to Gary Stolzenburg, WD8RVZ, 717 W. Benton St., Wapakoneta, OH 45895; all others, please use the bureau.

Check-in on 147.93/33. □

Round-up

The Mission Trail Net will hold their 44th Annual Round-up this year in San Diego on 19-21 June. The net now has a membership of 165 active amateurs who meet nightly at 1900 PST on 3928 kHz for the purpose of handling formal traffic, contacts and QST's of interest to members and other amateurs.

In addition to all this, the net publishes a monthly paper — *The Blazer*.

For more information on the Round-up, contact William C. Long, K6EVQ, P.O. Box 151, Buellton, CA 93427. □

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OMIK Convention

The Dallas Chapter of OMIK will supervise the 29th annual OMIK Electronic Communications Association Convention, to be held 16-18 July 1981 at the Dallas Hilton Inn, 5600 North Central Expressway.

OMIK is a predominantly black non-profit Amateur Radio club, incorporated under the laws of the state of Michigan. The Association has about 500 members throughout the United States, and meets once each year during the last part of July at a selected location.

For more information on this event, contact Joe Washington, 2516 East Illinois, Dallas, TX 75216; phone: 214-372-2768. □

The March Amateur Radio call signs were not received by the date this issue went to press. They should appear in the usual spot, on page 11, in our July issue.

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Mexicans honor 'Colegas Y Amigos' founders

Jane Rice, AD6Z

Awards of appreciation from three Mexican municipal and tourism agencies were presented to "Duke" Ellington, W6OZD and his XYL Bernie at the "Colegas y Amigos" breakfast in Long Beach, California, on 15 February.

Oscar Gonzalez, XE2DDP; Rodolfo Ana Sosa, XE2RAS; and Eduardo Mejia, XE2EML gave the plaque awards on behalf of the Ensenada Tourism Committee, the Municipal Government of Ensenada, and the Baja California Secretary of Tourism. A total of 177 group members, including 27 Mexicans, were present at the surprise ceremony.

"Duke" and Bernie have coordinated the stateside activities of the American-Mexican Amateur Radio "Colegas" group since its founding in 1963. Their organizing efforts have knit over 200 scattered radio amateurs and their families (QTH's ranging from central California down through Baja California) into an informal but cohesive group that works to develop understanding and friendship between Mexican and American amateurs.

The "Colegas" (translation: colleagues)

get together twice a year for a breakfast program, but the major event is an annual motorcade and three-day visit in Ensenada. Group members mention with pride that for 17 consecutive years, the Mexican Departamento Comunicaciones has granted temporary radio operating privileges to American amateurs participating in the motorcade.

The group actively works for reciprocal licensing between Mexico and the United States. "With the combined efforts of 'Colegas y Amigos,' the Flying Samaritans, ARRL, and Mexican radio clubs we will be able to accomplish this long-hoped-for ... agreement," Duke and Bernie predict.

Although not mainly a charitable organization, "Colegas" has, as a matter of on-going policy, donated clothing, food and school supplies to the Guadalupe-Victoria, the Semilla Chiquita, and El Sauzal orphanages in the Ensenada area. Adult clothing is given to an Ensenada home for the aged.

The Ellingtons add that "After Worldradio went into publication, we were presented with donations from time

to time to assist in our efforts. The Flying Samaritans have been exceedingly helpful by donating their services in order to bring medical assistance and supplies ... to the needy in remote areas in Mexico." Duke and Bernie emphasize that many other organizations, too numerous to list,

have helped "Colegas y Amigos" practice the group's motto and extend helping "Hands Across the Border."

For further information about the group, contact H. R. "Duke" Ellington, W6OZD, 2980 West 235th Street, Apartment 13, Torrance, CA 90505. □

license plates must also have in his car his regular California plates and vehicle registration. Issuance of inaugural plates goes back to 1933, when Franklin D. Roosevelt was inaugurated. They have been every four years since, except in 1945 when the war effort interfered with their production.

The California Highway Patrol said it found no problem with the unusual plates and treated them as any other out-of-state license plate. A registry of the plates is kept at the District of Columbia Bureau of Motor Vehicles Services. □

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102	2		3722	.92	153	69	3083	1.48	198	251	3220	1.88	270	
102A	52		3004	.98	154	40	3044	1.78	199	62	3245	.59	271	
103	8		.98	155	43	3839	1.98	210	252	3202	1.49	272		3.98
103A	59		3835	1.09	156	512	3051	.79	211	253	3203	1.49	273	
104	16		3719	1.99	157	232	3747	1.39	213	254		7.96	274	
105	4		3012	2.99	158	53	3004	.99	218	234	3625	2.99	275	
106	21		3118	.78	159	82	3466	.89	219	74	3173	3.76	276	
107	11		3293	.78									277	
108	11		3452	.78	160	51	3006	1.59	220			1.69	278	
109	IN34As		3090	.26	161	39	3716	.97	221		3050	1.99	279	
112	IN82A		3089	.59	162	35	3559	5.39	222		3065	1.99	280	
116			.39	163A	36	3439	5.79	223	255		2.49	281		4.79
118	CR-1		3066	1.59	164	37	3133	5.55	224	46	3049	4.90	282	
119	CR-2		3109	.89	165	38	3115	4.95	225	256		3.94	283	
					165			.99	226	49	3082	1.96	284	
121	239		3717	2.09					228A	257		1.39	285	
123	20		3020	.64	167			1.29	229	61	3246	1.09	286	
123A	20		3444	.68	168			1.59					287	
123AP			3854	.63	169			1.98	230		3042	4.29	288	
124	12		3021	1.49	170			2.95	231		3042	4.29	289	
125	510		3081	.38	171	27	3201	1.29	232	258	3241	.69	290	
126	52		1.29	172A	64	3156	.72	233	210			.69	291	
127	25		3764	4.27	173BP			4.95	234	65	3247	.69	292	
128	243		3024	1.09	175	246	3261	1.59	235	215	3197	2.90	293	
129	244		3025	1.09	176	80	3845	2.49	236	216	3239	4.90	294	
					177	300	3175	.49	237	46	3299	4.19	295	
					179	76	3642	4.68	238	259	3710	6.66	296	
130	14		3027	1.98					239	259	3710	2.98	297	
131	44		3198	1.85									298	
132	FET-2		3834	.99	180	74	3437	4.99					299	
133	FET-1		1.09	181	75	3535	4.44	241			3188A	1.59		
134A	ZD-3-6		3055	.49	182	55	3188A	3.27	242	58	3189A	1.89		
135A	ZD-5-1		3056	.49	183	56	3189A	3.36	243		3182	2.09		
136A	ZD-5-5		3057	.49	184	57	3190	1.69	244			2.89		
137A	ZD-6-2		3058	.49	185	58	3191	1.69	245			3.33		
138A	ZD-7-5		3059	.49	186	28	3192	1.44	246			4.39		
139A	ZD-9-1		3060	.49	186A	247	3192	1.39	247			3.93		
					187	29	3193	1.64	248			4.91		
140A	ZD-10		3061	.49	187A	248	3193	1.39	249			6.19		
141A	ZD-11		3092	.49	188	217	3199	1.49	250			6.29		
142A	ZD-12		3062	.49	189	218	3200	1.49	251			6.29		
143A	ZD-13		3750	.49	190	217	3232	1.79	252			6.29		
144A	ZD-14		3094	.49	191	249	3232	1.98	253			1.79		
145A	ZD-15		3063	.49	192	63	3137	.99	254			1.98		
146A	ZD-27		3064	.49					257			2.07		
147A	ZD-33		3095	.49	192A	88		.99	258			2.90		
148A	ZD-55		3096	.49	193	67	3138	1.09	259			2.22		
149A	ZD-62		3097	.49	193A			1.09						
					194	220	3275	.79	260			2.95		
					195A	46	3765	2.89	261			1.79		

Ice didn't stop this wedding

Submitted by Martin Walton, KA0CIT

The bridegroom is icebound in the Arctic Ocean 2,000 miles away, but he and the bride were determined to go through with the wedding anyway. So they exchanged their "I do's" over the crackling static of a two-way radio.

Coast Guard member Richard Barley, 31, is stationed aboard the icebreaker Polar Sea, which is stuck in ice 260 miles south-southwest of Point Barrow, Alaska. It may not be free until June or July, depending on how fast the ice melts.

"We just didn't want to wait," said Nina McKenzie, the 27-year-old bride, amid the crush of journalists who gathered for her end of the ceremony Monday night, 20 April. "We decided to do it this way when the boat got stuck."

Bob Winters, an Amateur Radio operator and member of the Coast Guard, and Tim Hanna aboard the Polar Sea, arranged the 10-minute nuptials in a 10-by-10-foot radio room at his home in Marysville, Washington, where the

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bride's family lives. She and Barley live in San Francisco.

In Washington, couples can apply for a marriage license by mail, and only one of the parties need be present to pick it up.

The ceremony began an hour earlier than its scheduled 7:00 p.m. because testing on previous nights prompted fears that solar flares would interrupt the conversation.

Transmission was described as "intermittently lousy." Still, Barley and McKenzie could hear each other's words.

At the end of the ceremony, the new Mrs. Barley kissed the Baptist minister, Bob Hamilton.

Her husband radioed that his communications officer kissed him.
— Des Moines Register, 22 April □

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Coronel de Transmisiones, Fernando Zarco, left, and Mario Reyes Borda, XE2RAS, were part of a 27-member Mexican delegation attending the recent "Colegas y Amigos" breakfast in Long Beach, California. (AD6Z photo)

Patriotic plates

Quite a few people in Southern California stop and ask Karl Pagel, N6BVU, if he went to Washington, D.C. to have his car registered. No, he didn't.

The President's Inaugural Committee offered special Washington, D.C. license plates in patriotic red, white and blue that can be used in California and other states in lieu of regular plates until 15 March.

The special plates come complete with a replica of the American flag. In California, a motorist displaying the special

license plates must also have in his car his regular California plates and vehicle registration. Issuance of inaugural plates goes back to 1933, when Franklin D. Roosevelt was inaugurated. They have been every four years since, except in 1945 when the war effort interfered with their production.

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100	1		3721	.89	151A	ZD-110	3099	.49	196	241	3054	1.88		
101	8		.98	152	66	3054	1.38	197	250	3083	1.88			
102	2		3722	.92	153	69	3083	1.48	198	251	3220	1.88	270	
102A	52		3004	.98	154	40	3044	1.78	199	62	3245	.59	271	
103	8		.98	155	43	3839	1.98	210	252	3202	1.49	272		3.98
103A	59		3835	1.09	156	512	3051	.79	211	253	3203	1.49	273	
104	16		3719	1.99	157	232	3747	1.39	213	254		7.96	274	
105	4		3012	2.99	158	53	3004	.99	218	234	3625	2.99	275	
106	21		3118	.78	159	82	3466	.89	219	74	3173	3.76	276	
107	11		3293	.78									277	
108	11		3452	.78	160	51	3006	1.59	220			1.69	278	
109	IN34As		3090	.26	161	39	3716	.97	221		3050	1.99	279	
112	IN82A		3089	.59	162	35	3559	5.39	222		3065	1.99	280	
116			.39	163A	36	3439	5.79	223	255		2.49	281		4.79
118	CR-1		3066	1.59	164	37	3133	5.55	224	46	3049	4.90	282	
119	CR-2		3109	.89	165	38	3115	4.95	225	256		3.		

Ohio amateur fights tower ordinance

Joe Burke, WA8OGS

Jim Stitt, WA8ONQ, had 30 days to shorten his tower so that the top of the mast was below 60 feet. The 30-foot days have passed, and the tower still stands at 90 feet plus mast and antennas. Jim has decided to fight the ruling of the city commissioners. This decision alone will cost him an additional \$2,500 in legal fees, and could go higher if more appeals are needed.

The dispute started with some of his neighbors complaining of radio and TV interference from the tower's antennas. The neighbors were also unhappy with the unsightliness of the tower installation. The city of Middletown, Ohio, where Jim resides, had enacted an ordinance to prohibit tower installations over 60 feet in height. (This is the FCC limit for citizens band towers, but the city of Middletown has combined radio amateurs and CBers with this ordinance.)

Jim also has a second tower over the 60-foot restricted level, which was already in place when the 60-foot zoning restriction was passed. But the height of this tower is also being challenged! The 90-foot tower was installed in June of 1980, just prior to the ARRL VHF contest. The antennas on this tower consist of a pair of KLM 50 MHz Yagis, and a 220 MHz Yagi between them. The 220 MHz Yagi has since been replaced by a KLM 10-meter Yagi.

The R.L. Drake Company was the first to back WA8ONQ with a contribution

toward his legal fees. Assistance to fight the zoning ordinance has also been sought from the ARRL. At their November meeting (see January '81 QST, p.61), the ARRL executive committee discussed WA8ONQ's case and are waiting on a copy of the transcript of the Middletown zoning appeals hearing. Many local amateurs have also joined in with their letters of support and/or contributions for the WA8ONQ zoning fight.

Bill Burton, vice-president of the Dial Amateur Radio Club, spoke at the zoning hearing on how a lower tower installation could actually cause more TV interference. Bill also pointed out that the 60-foot tower height is a FCC citizens band restriction, but should not be applied to Amateur Radio. (The Dial Amateur Radio Club has membership in the Dayton and Middletown, Ohio area.)

Any means of assistance, such as letters of support, etc., would be appreciated by WA8ONQ. And if you want to view one of the top VHF antenna installations in the area, give Jim a call and arrange a visit. (Jim Stitt's phone no. is (513) 424-0414 (home) or (513) 241-8282 (work).

This tower ordinance fight should be of major concern to every amateur who now has a tower, or might in the future decide to install one. It could set a dangerous precedent for other cities and communities. How would you feel if a couple of neighbors could force you to lower a tower that you just installed after months of planning and work? Or worse yet, lower

amateurs, set what it admits were arbitrary chronological requirements to make the survey results workable.

To be recognized as an old-timer, you must have been licensed before 1946. If you acquired your first license in 1978 or thereafter, you are a newcomer. Anything between 1946 and 1978 qualifies you as "other," I guess.

— The Home News

Large island, small world

Linda M. Turner, WD4OCI

Twenty miles long and five miles wide, St. Croix is the largest of all the Virgin Islands, but it is a mere eight miles, as the sea gull flies, from the home of Richard and La Verne Moffitt, KV4IJ and KV4II, on the north coast, to the home of Vincent Roebuck, KV4JS, on the south shore. Vince was born on St. Croix, where he has lived for most of his life, while Dick and his wife moved to the island in 1970.

It is not surprising that such close neighbors have been good radio friends for the past 11 years. Dick and Vern are active on the various nets on 14.313 MHz as net controls and traffic handlers. Vince checks into the same nets frequently to contact relatives in Arizona and his son, Vince Jr., WA4CDK, who operates often from a naval vessel in maritime regions 1 and 2.

14 March was a memorable day for Dick and Vince. Both had flown to Florida to attend the well-publicized Orlando hamfest. Considering the large attendance at one of our nation's most popular amateur conventions, it is a small wonder that our two friends from St. Croix met on that particular Saturday afternoon. What is so special about two neighbors meeting each other at a hamfest? Living only eight miles apart on an island only 20 miles long, is seems that they traveled over 1,000 miles to meet each other for the very first time. It's a small world.



Jim Stitt, WA8ONQ, adjusts feed on 1296 MHz antenna.

a tower you have been using for many years? Someone has to stand up and fight — and Jim Stitt is doing just that! But he needs your support, in the form of legal fee contributions or letters in support of his appeal process. These can be sent to me, and I will see that it is forwarded to WA8ONQ. Joe Burke, WA8OGS, 6381 Mullen Rd., Cincinnati, Ohio 45239. □

How old is an old-timer?

Bob McGarvey, WB2EVF

How old do you have to be to be an old-timer? Or, more to the point, how long do you have to be licensed as an amateur to rate that designation?

QST, in a survey of radio habits and preferences of a cross-section of

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Other cw and ssb filters are available as options, see below. I-f frequency is 9 MHz, i-f rejection 60 dB. Offset tuning is ± 3 kHz with a detent zero position in the center. Built-in notch filter has a better than 50 dB rejection notch, tunable from 200 Hz to 3.5 kHz. An optional noise blanker of

utes on all bands. 3-function meter shows forward peak power on transmit, SWR, and received signal strength. PTT on ssb, full break-in on cw. PIN diode antenna switch. Built-in cw sidetone with variable pitch and volume. ALC control on "high" power only where needed, with LED indicator. Automatic normal sideband selection plus reverse. Normal 12-14V dc operation plus ac operation with optional power supply.

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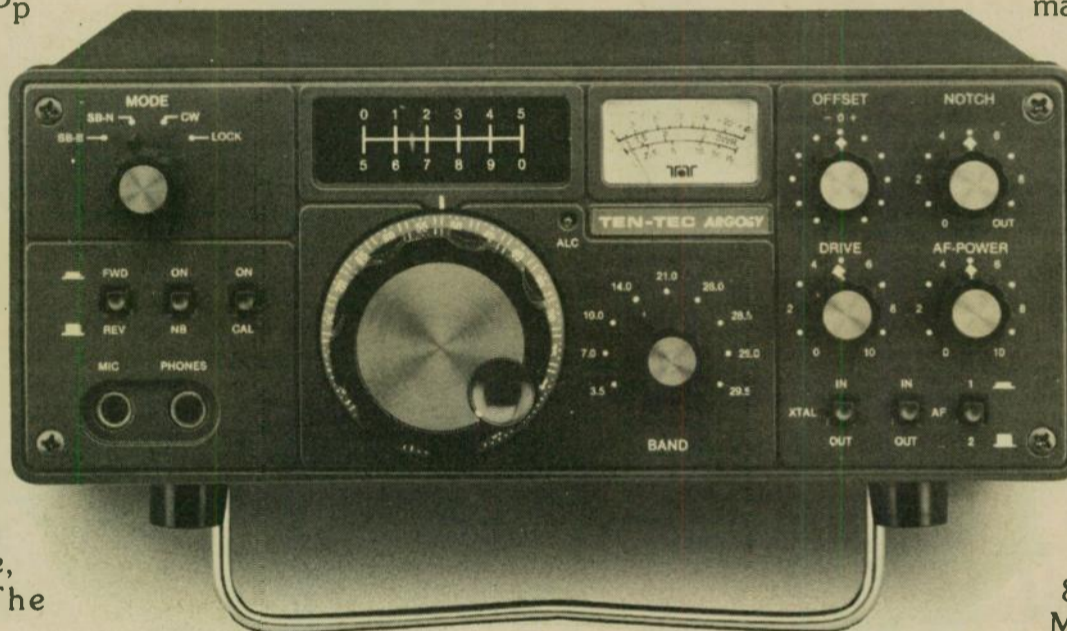
Stainless steel tilt-up bail. And it's only 4" high by 9½" wide by 12" deep (bail not extended) to go anywhere, fit anywhere at home, in the field, car, plane or boat.

The right accessories—all front-panel switchable. Model 220 2.4 kHz 8-pole ssb filter \$55; Model 218 1.8 kHz 8 pole ssb filter \$55; Model 217 500 Hz cw filter \$55; Model 219 250

Hz cw filter \$55; Model 224 Audio cw filter \$34; Model 223 Noise blanker \$34; Model 226 internal Calibrator \$39; Model 1125 Dc circuit breaker \$10; Model 225 117/230V ac power supply \$129; Model 222 mobile mount, \$25; Model 1126 linear switching kit, \$15.

Model 525 ARGOSY — \$549. Make the right choice, ARGOSY—for the right reasons and low price. See your TEN-TEC dealer or write.

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Mexico DX Club awards

Diploma 100X

The Diploma 100X award is issued to amateurs and SWL's who are able to confirm QSO's with stations that have in their call one or more "X" letters (i.e., W4XYZ, G2XXX) To qualify, a station must confirm a total of at least 100 points.

Mexico DX Club members count as 3 points; Mexican stations count as 2 points; all other countries count as 1 point. A QSO with XE1MDX (club station) counts for 10 points.

Only contacts made after 1 January 1973 are valid. Award fee is 15 IRC's or \$3 U.S.

Mexico DX Award

This award is issued to amateurs and SWL's able to confirm QSO's with Mexico DX Club member stations located in Mexico.

XE applicants need to confirm QSO's with 10 different club members. Zones 1 to 13 (except zone 6) must confirm five different club members. All other applicants require only three different club members.

Only contacts made after 1 January 1973 are valid. Award fee is 10 IRC's or \$2 U.S.

Mexico DX Club members include: XE1AE, XE1FX, XE1GBM, XE1KS, XE1LCH, XE1LSS, XE1MDX, XE1MMD, XE1OD, XE1OK, XE1OH, XE1OW, XE1OX, XE1OZ, XE1RRP, XE1WIN, XE1UX, XE1VV and XF4MDX.

For more information on either of these awards, write to: Scott R. Douglas, Jr., KB7SB, P.O. Box 46032, Los Angeles, CA 90046 (send SASE). □

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Remember Tom Sawyer?

The Hannibal Amateur Radio Club, Inc. will issue a Special Events Certificate from the National Tom Sawyer Days celebration operating from Mark Twain's boyhood home town — Hannibal, Missouri — on 4-5 July 1981. Hours: 1500-2100 UTC on Saturday, 4 July and 1700-2100 UTC on Sunday, 5 July. Frequencies: 7.245, 14.290, 21.390 MHz and Novice CW on 7.125 and 21.125 MHz.

To receive the certificate, send a large 9" x 12" SASE and your personal QSL card confirming the contact to: Hannibal Amateur Radio Club, Inc., W0KEM, 2108 Orchard Avenue, Hannibal, MO 63401. □

TIM-BER-R-R!

The Mid-Willamette Amateur Radio Club will be operating from the "World Championship Timber Carnival" in Albany, Oregon. Times are from 1900 UTC, Friday, 3 July 1981 until 2300 UTC, Sunday, 5 July 1981. Look for Howard Truax, W7SO, on 3.975, 7.275, 14.285, 21.375 and 28.575 MHz. Look for club members operating their own stations on various other frequencies.

A special certificate will be sent to each station sending a QSL card and 8½" x 11" SASE to Mid-Willamette ARC, P.O. Box 1226, Albany, OR 97321. Jim Walburn, Secretary, WB7TAZ. □

Highlands Games Award

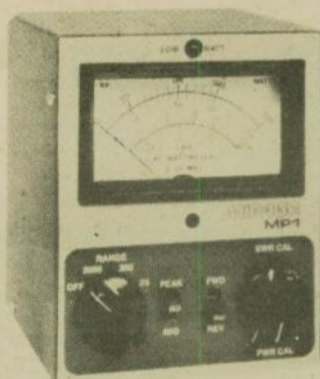
Local amateurs in Midlothian, Illinois will be operating a Special Event station during Scottish Highland Games in that community.

A commemorative certificate suitable for framing will be issued for any contact made with a Midlothian Station during the Games. Look for them on 10 through 80 meters Novice and phone 0000 GMT 13 June until 2400 GMT 14 June 1981.

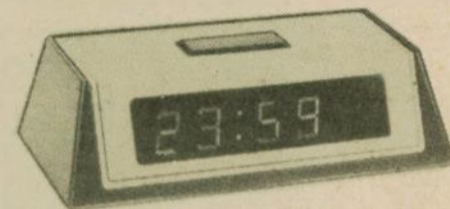
To receive this certificate, send QSL and postage — no envelope — to the amateur contacted. For more information, write to: Bill McGreevy, KA9DES, 14820 Trumbull, Midlothian, IL 60445. □

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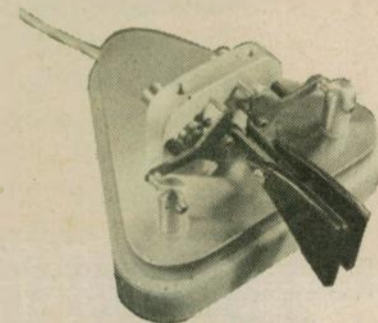
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Work the Caribbean

Basic award is issued for confirmed contact with 20 of the island countries on the WTC list. Endorsement seals are issued in increments of 5. Gold Seal plaque can be issued for 30+ confirmation at a cost of \$18 U.S. or 95 IRC's. SWL's may apply on a heard basis.

Send your application (log extract) (and \$3.50 or 18 IRC's) verified by your local radio club, or a notary public, or two licensed Amateur Radio operators or send Xerox copies. Should you desire to send QSL cards, be sure to specify the method of return and provide funds for same. Send to: Scott R. Douglas, Jr., KB7SB, P.O. Box 46032, Los Angeles, CA 90046 USA.

Endorsements may be applied for any mode, band or power level if requested at the time of your application.

You should receive your award within two weeks after receipt by award manager. Awards are printed in four colors on a beautiful parchtone bond. To receive future endorsement seals, send \$1 plus SASE.

Work the Caribbean country list

C6	Bahamas
CO/CM	Cuba
CO4	Isle of Pine (Cuba)
FG	Guadeloupe
FS	Saint Martin
FM	Martinique
MH	Haiti
HI	Dominican Republic
HKO	Bajo Nuevo
HKO	San Andres & Providencia
HKO	Serrana Bank & Roncador Cay
HRO	Swan Island
J3/VP2G	Grenada & Dependencies
J6/VP2L	St. Lucia
J7/VP2L	Dominica
KC4/KP1	Navassa Island
KG4	Guantanamo Bay
KP4/NP4/-	
WP4	Puerto Rico
KP4	Desecheo Island
KP3	Serrana Bank & Roncador Cay
KP2/KV4	U.S. Virgin Islands
PJ	Netherlands Antilles
PJ	St. Maarten, Saba, St. Eustatius
VP2A	Antigua, Barbuda
VP2E	Anguilla
VP2K	St. Kitts, Nevis
VP2M	Montserrat
VP2S	St. Vincent & Dependencies
VP2V	British Virgin Islands
VP5	Turks & Caicos Islands
VP9	Bermuda
YV	Margarita Island
YVO	Aves Island
ZF	Cayman Island
6Y	Jamaica
8P	Barbados
9Y	Trinidad & Tobago

Work the Pacific

The basic award is issued for 30 confirmed contacts on the WTP country list to any licensed Amateur Radio operator and to SWL's on a heard basis. Endorsement seals are issued in increments of 5 and 10. A Gold Seal plaque can be issued for 50+ confirmed countries if desired. Cost at this date is \$18 U.S. or 95 IRC's.

Mode, band, power level, etc. endorsements will be made upon request with the original application only, and must be so requested and indicated. Send your verified log extract (certified by your local club, a notary public, two licensed radio amateurs or Xerox copies) along with \$3.50 or 18 IRC's to: CHC Award Manager Scott R. Douglas, Jr., KB7SB, P.O. Box 46032, Los Angeles, CA 90046 USA.

Awards are printed in four colors on a beautiful parchtone bond. You should receive your award about two or three weeks after application.

For future endorsement seals, send \$1 plus SASE. Should you desire to send QSL cards, be sure to specify the method of return and provide funds for same.

Work the Pacific country list

A3	Republic of Tonga
BV	Taiwan
C2	Republic of Nauru
CE0A	Easter Island
CE0X	San Felix

CE0Z	Juan Fernandez
DU	Rep. of Philippines
FK	New Caledonia
FO	Clipperton Island
FO	French Polynesia
FW	Wallis & Futuna Islands
H44/VR4	Solomon Islands
HC8	Galapagos Island
HKO	Malpelo Island
JD1/KA1	Minami Torishima
JD1/KA1	Ogasawara
KB1/KH1	Baker, Howland & Amer. Phoenix
KC6	Eastern Caroline Islands
KC6	Western Caroline Islands
KC6	Valu
KH2	Guam

KH0	Mariana Islands
KH6	Hawaiian Islands
KH7	Kure
KH3	Johnston Atol
KH4	Midway
KH5K	Kingman Reef
KH5	Palmyra, Jarvis Islands
KH8	American Samoa
P2	Papua New Guinea
T2/VR8	Tuvalu
T3/VR1	Central Kiribati
T3/VR1	West Kiribati
T3/VR3	East Kiribati
TI9	Cocos Island (Costa Rica)
VK7	Tasmania

(please turn to page 9)

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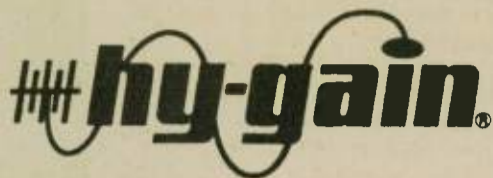
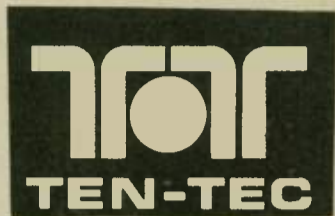
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Work Pacific

(continued from page 7)

VK	Australia
VK	Lord Howe
VK9	Willis Island
VK9	Christmas Island
VK9Y	Cocos Keeling Island
VK9	Mellish Reef
VK9	Norfolk Island
VK0	Heard Island
VK0	Macquarie Island
VR6	Pitcairn Island
VS5	Brunei
XF4	Revilla Gigedo (Mexico)
YB/YC	Indonesia
YJ/	New Hebrides
ZK1	South Cook Islands
ZK1	North Cook Islands
ZK2	Niue
ZL	New Zealand
ZL	Auckland Island
ZL	Campbell Island
ZL	Chatham Island
ZL	Kermadec Islands
ZM7	Tokelau
3D2	Fiji Islands
5W	Western Samoa
9M2	West Malaysia
9M6/9M8	East Malaysia

Mackinac Race Special Event

The Eastern Michigan Amateur Radio Club of Port Huron, Michigan will conduct a special events station, K8DD, for the 57th Port Huron to Mackinac Yacht Race. The station will operate on Friday, 24 July, 2200-0200 GMT, and Saturday/Sunday, 25/26 July, 1400-0200 GMT.

Activity will be on 80, 40 and 15 meters SSB, 10 kc up from the General Class lower band edge. Novice will be on 3710, 7010 and 21110 kHz on the even hours.

Amateur Radio makes the world that much closer. Get close to Amateur Radio; read **World-radio**.

Dayton Hamvention award winners

Bob McKay, Editor, *RF Carrier*

Each year as part of the Dayton Hamvention, two awards are presented to deserving amateurs. The Amateur of the Year Award goes to someone who has contributed to and has shown long-term excellence in Amateur Radio. The Special Achievement Award goes to someone who contributed to Amateur Radio either by a one-time event or specialized activity. Each year, the awards committee carefully reviews the many nominations received from around the world and selects one in each category. On 8 April 1981, the committee released the names of this year's selections. The Amateur of the Year Award goes to Eric G. Shalkhauser, W9CI.

Mr. Shalkhauser, 88 years old and still active, has been licensed for 65 years. He was selected for his long-term service to Amateur Radio. Well-known for many articles on Amateur Radio, he also holds a number of patents and served as a professor at Bradley University.

He is best known in the amateur world as the man who started and operated the RME Company (Radio Manufacturing Engineers) in Peoria, Illinois, builders of high-quality amateur gear in the '30s and '40s. This fine gear was the first factory-built equipment for many an amateur and is still found in many shacks as a souvenir of the past.

Mr. Shalkhauser is a Charter Member of the Peoria Amateur Radio Association. He is currently writing a history of Amateur Radio which is now appearing in *73 Magazine*. He has a complete log of his 65 operating years and a complete collection of QST. The Hamvention recognizes this outstanding amateur.

The Special Achievement Award goes to two persons: William Pasternak, WA6ITF, and William Orenstein, KH6IAF.

They were recognized for their devotion to Amateur Radio in providing the



Amateur of the Year Award winner, Eric C. Shalkhauser, W9CI (left) proudly displays his plaque to Bill Pasternak, WA6ITF (center), editor of *Westlink* and recipient of the Special Achievement Award, and Joe Schroeder, W9JUV, editor of the *HR Report* newsletter. Bill Orenstein, KH6IAF (not shown) shared the Achievement Award with Pasternak. (KA9DYS photo)

commercial broadcasting industry who donate their time. The end result is a tape which is put into a playback unit connected to the telephone line. Any club or individual can simply dial the number and record the 10-minute program for replay over their own repeater.

Westlink Amateur Radio News, a free service to the Amateur Radio community, is produced by Bill Pasternak with Bill Orenstein serving as production coordinator. The two Bills have funded this program completely out of their own pockets, paying for the production costs, office space, telephone bills, equipment purchase, etc. out of their personal resources — something almost unheard of these days.

The weekly program is a truly commercial newscast devoted entirely to Amateur Radio. It is produced in Hollywood with the assistance of volunteer West Coast amateurs and reporters around the country and overseas. The people involved in the actual production are all professionals in the

The news-gathering, production, editing, etc. take practically every spare minute of the two men's time, as well as every dollar they can spare. Only recently have they asked for voluntary contributions from the amateur community to help keep the operation going, as the inflationary spiral is becoming more than they can cope with. The Hamvention recognizes two truly dedicated amateurs.

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HIGHLIGHTS

Bill Grenfell, W4GF

The 160-meter band rule amendment which I reported as on its way to the FCC Commissioners in April's Highlights has, unfortunately, been held up for a comprehensive editorial re-write by a Bureau or Office other than the originating Private Radio Bureau.

Commissioner Robert E. Lee continues as acting chairman at FCC. Mark Fowler has been nominated by the president to be a new commissioner and is known to be the president's choice as chairman. His nomination is subject to confirmation by Congress. Commissioner Lee's term is up on 30 June 1981 and he is expected to retire by the end of the calendar year, if not before.

Five commissioners, instead of seven, have been suggested in other publications and the idea has some Congressional support, according to an FCC staff employee. However, this would require amendment of the Communications Act which describes the make-up and the duties of the FCC.

Rules for amateur repeater stations in the Virginia-West Virginia Radio Astronomy Quiet Zone were adopted by FCC. The purpose of the action is to extend the protection required of other services to include amateur and Class A citizens service for the observatories at Green Bank and Sugar Gove, West Virginia. Amateur licensees proposing a new repeater station or proposing to modify an existing repeater station must notify the Director, National Radio Observatory, P.O. Box No. 2, Green Bank, WV of the antenna location, height and directivity, transmitter frequency, power and type of emission or any change

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thereof. "If an objection to the proposed operation is received by the Commission . . ." (in behalf of either observatory) . . . the Commission will consider all aspects of the problem and take whatever action is deemed appropriate." The Zone is bounded by 39° 15' N., 78° 30' W., 37° 30' N., and 80° 30' W. This rule does not apply to existing repeaters as long as they remain unmodified as to the above-listed technical particulars, and does not apply to other types of amateur fixed stations nor to amateur mobile stations. The new rule will be added to Section 97.41 of the Amateur Radio Service Rules.

The new tower clearance form will be delayed as much as four months before it will be available for use. See April Highlights.

The ARRL has petitioned FCC to expand the 20-meter phone band. Details were not available as this was written.

More next month.

A petition for reconsideration of the ban on new club station licenses, filed by the Capitol Hill ARC, was denied by FCC action on 26 March, 1981.

A valid club station license and call sign can be used for a repeater station, according to John Johnston, Chief of the Private Radio Bureau's Personal Radio Branch.

An agreement for the exchange of third-party communications between amateur stations of Gambia and the United States became effective 15 April, 1981.

"Spread spectrum" communications experiments in several amateur bands have been authorized by FCC to the Amateur Radio Research and Development Corporation (AMRAD), a club located in the northern Virginia sector of the greater Washington, D.C. area. The 3.5, 7, 14, 28 and 420 MHz amateur bands are involved. Paul Rinaldo, W4RI, is listed as the club's source for information.

The FCC's proposed move from D.C. to nearby Virginia "is dead," as one employee so aptly put it!

"Eight jammers of a California repeater have been cited by the FCC's San Francisco office. "The eight — two of whom are unlicensed — were cited for various rules violations resulting from an organized jamming effort against the Grizzly Peak repeater, WB6AAE/R, last summer (HRR 315, 318, 320). "All now face fines and/or license suspensions and revocations. "The amateurs involved are N6OZ, KB6IL, KA6KXF, WA6JIY, K6MMZ, and KA6KWM." From *HR Report #377*, 13 March, 1981. □

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FCC columnist, Bill Grenfell, W4GF.

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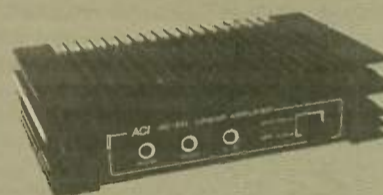
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FCC encourages experiments

Consistent with a recent Commission Amateur Radio definition that, "The Amateur Radio Service is for technically-inclined persons who wish to learn about and experiment with radio communications equipment and operating techniques" (Commission Order of 6 November 1980), interested radio amateurs are encouraged to experiment with new methods of transmission and new radio technologies.

The Commission realized that in certain instances proposed experiments may conflict with existing rules, and may therefore require a Commission rule waiver. The Commission is willing to grant rule waivers for many different experimental purposes, including: Spread-spectrum modulation techniques; Packet-switching networks; Radioteletype codes, other than ASCII and Baudot; "Beacons" for propagation studies; Medium-scan television; Frequency and/or amplitude "companding"; Digitized voice techniques; Digitized video techniques; "Trunked" repeater systems; and EME communications.

For example, on 6 March 1981, the Private Radio Bureau granted Special Temporary Authority (STA) to 25 radio amateurs affiliated with the Amateur Radio Research and Development Corporation (AMRAD) to experiment with spread-spectrum transmission. (Spread-spectrum is an application of broad-band transmission that appears to make more efficient use of congested frequency bands than does conventional narrow band transmission.) On 15 August 1980, an STA was granted for two years to a radio amateur to conduct experiments in digital phase shift keying in the high frequency (HF) phone band, where slow-scan television is authorized. During November 1980, four amateur licensees were granted a rule waiver to permit transmissions of the digital teleprinter code for the purpose of conducting experiments to develop an error-free mode of amateur teleprinter communications.

These recent examples represent only a small segment of the many avenues of experimentation open to licensees in the Amateur Radio Service.

Licensees wishing to conduct experiments within the amateur bands should first refer to the Commission's rules to determine if a Commission rule waiver is required. If the experiment may be conducted in accordance with the rules, no communication with the Commission is required. However, if a proposed experiment will conflict with any of the Commission's rules, the licensee conducting the experiment must write to the Commission requesting a waiver of the specific rule(s). Waiver request letters should be addressed to: Federal Communications Commission, 334 York Street, Gettysburg, PA 17325, Attention: Technical Section.

The content of the waiver request letter should cover complete details of the proposed experiment, including all technical parameters, specific frequencies to be used, and a justification for the project. The Commission will approve or deny your request in writing, and no experimentation may commence until the written approval is received. □

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USQS is run by Laryl Myers, N7BMY. Laryl acts as manager for several stations and combines all services with the USQS. To receive cards from USQS, keep an SASE on file and tell your contacts to QSL via USQS (or via N7BMY). Please indicate if you have preference as to sending your SASE back to you with a certain number of cards, or if you wish us to hold

till full. If you send QSLs to USQS, please sort your outgoing cards by call sign area, 0-9. We run this service at a loss and ask only 25¢ for each 20 cards you send. This service is offered to all with unlimited use. We have been complimented and criticized, but in answer to the question of how and why we exist, as I just stated, it is run at a loss as a service that hopefully will grow and support itself.

We offer SASEs at four for \$1, if you would like us to do the addressing for you. If you really like to have someone else do that paperwork and would like to QSL your contest, USQS will accept your log (copy) and blank QSLs and fill out the card, put them on file and also put four SASEs on file. We ask for a minimum of 200 cards and ask 5¢ for each QSL.

USQS invites your comments and suggestions in the spirit of providing a beneficial service.

Following is a list of calls belonging to

those for whom we have received QSLs within the last month. A monthly list of new calls has been listed every month since October 1980, and will be here next month; but don't wait till you see your call. Get an SASE on file and save the typist's fingers!!

Best wishes for a safe, spring hamming season. Good luck & 73, Laryl U.S. QSL Service (USQS or N7BMY) P.O. Box 814 Mulino, OR 97042.

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| VE1CAZ | W1LX | KA2ECK | WA2TPU |
| WD1CBP | W1MG | KA2ERX | VE2YH |
| KA1DBN | WA1MMD | KA2FCV | WB2ZSC |
| KA1DDB | KA1MXX | KA2FDV | WB3AKI |
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| KA1EBA | K1OIC | KA2HKN | VE3AVA |
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| WB1FVS | WA1UPB | KE2K | WB3CSO |
| K1FWF | WA1ZPB | KA2KAG | KA3DDG |
| KA1GCH | N2BIK | KA2KFY | KA3DPO |
| W1GDU | N2CEV | KA2KGD | KA3DSZ |
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|--------|--------|--------|--------|
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| WB3EYS | KA4EGC | KA4SAA | KA5KQK |
| KA3FFD | KA4EFK | W4SEZ | W5MAQ |
| WB3FGU | WA4FED | KA4SMY | WB5NWE |
| KA3FJM | A4FF | KA4SSX | KA5OYN |
| KA3GBB | KA4FJE | W4TC | KM6R |
| KA3GGP | KA4GSK | W4TL | WA5VPE |
| VE3GJA | KC4HJ | WA4UTC | WA5VVF |
| WB3HDI | WA4HU | WA4VDS | WA5ZLJ |
| VE3HOM | KA4IFK | WB4WXA | WH6AMM |
| W3HVQ | KA4IOU | WA4ZFP | WA6ANR |
| VE3IBV | KA4ITQ | KB4ZG | VE6ARG |
| WB3IKQ | K4JM | KA5BEE | VE6AYX |
| VE3JRP | KA4K | VE5BH | KA6BCN |
| VE3JUC | KA4KEM | N5BNB | WD6BKB |
| W3KKN | KA4KFF | KA5BST | AH6BL |
| VE3KQR | AK4L | N5BZO | K6BM |
| WA3LGG | W4LOO | N5CBL | AH6BX |
| WB3LQQ | WA4LRF | KA5CBX | KA6CSU |
| VE3MFT | KA4LRM | KA5CBY | N6CT |
| VE3MQV | WD4NHC | N6CCB | KA6EFC |
| AI3Q | W4NJS | KA6CIB | WD6FDD |
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| WD4ACG | KA4NZP | WD6FAO | KA6GJV |
| KA4AKY | KK4O | WA6FLG | KW6HF |
| WB4ARR | KA4OFC | KA6FPX | N6HR |
| KA4AVD | WA4OJW | KA6GIN | VE6IF |
| WP4BDS | KA4OJI | K6SGT | KA6LCI |
| AA4BP | W4OST | KA6GWI | WA6LFF |
| N4CCA | KA4OXQ | WB5HLB | K6MAS |
| W4CKD | KC4OV | KA6HUB | KA6MLO |
| KA4COE | KA4PSI | KA6HWP | KA6NMI |
| W4CUE | WA4QQN | WA5IPS | KA6NVM |
| WA4DGM | WB4RBK | K6IS | W6QHS |
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(please turn to page 22)

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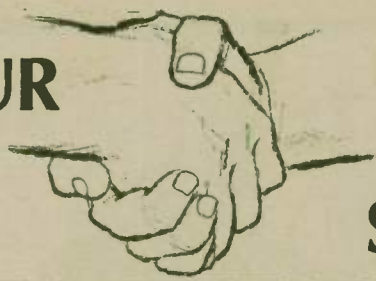
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Superwalk aid

Amateurs across the nation again participated in the March of Dimes Superwalks, this year dubbed WalkAmerica, by providing needed communication on 26 April.

Typical of the various communities was the effort in the San Fernando Valley where 50 amateurs set up a base station at headquarters, Devonshire Downs, to keep in touch with six different checkpoints around the 20-mile walk.

At each one, a mobile appropriately decked out with signs was the focal point for messages to officials when "poop-out" buses were needed or additional band-aids required by the volunteer podiatrists tending blistered toes and heels. Liaison with the Red Cross was maintained.

Lost children or hiking partners always receive their share of attention at these yearly efforts to raise funds for research into the number one childhood problem: birth defects (250,000 babies are born with such each year.)

Both 2 meters and "220" are used, in simplex mode and via repeaters, such as W6VNV of the Valley Good Guys.

A vital part of the arrangement was having the crew of amateurs with hand-holds on hand early in the morning, at points where youngsters gather to board buses bound for Headquarters. Similarly, the communications crew must be available at dusk when waiting parents meet the returning, tired participants. Invariably, a few board the wrong bus or parents are detained, requiring last-minute phone calls, often via autopatch, to reunite families. No amateur signs off till all are matched.

Roving amateurs assist in traffic control and at least two actually ride with the black-and-whites of the police department. In previous years, plaudits from officials have been generous, claiming "We couldn't have done it without the Amateur Radio operators!"

Los Angeles area Section Emergency Coordinator, Dave Tucker, WB6FAK, replied, "To us, it's good practice for the ARES members."

As in the various radio groups across the nation, a few volunteer leaders were essential to the day's success. District Emergency Coordinator Bob Burns, N6ZH, and Assistant District Emergency Coordinator Norm Friedman, W6ORD, coordinated the ARES group with Valley Good Guys chairman, Vick Martin, WA6UOC, and Mel Borses, WB6VHS. □

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Fast action saves a life

Dorsey Price, K5EDS

On Saturday, 21 March 1981, Shirley Wolter, WB6QFU, and her husband, Harry WA6WYP, were preparing breakfast in their Phelan, California home. As usual, they were monitoring the WA5EFW repeater which serves the high desert just north of the Los Angeles basin. At 0800 the repeater squelch was broken by a highly agitated voice asking for help. Shirley answered the station but the man speaking was so shaken, he could only ask for help. By talking slowly and confidently, Shirley was able to ascertain that the party was Kin Adams, WB6CUO. She has talked to him the night before directing him to the Barstow Sheriff Department. He had requested information on shooting areas in the desert.

Due to a freak accident, 10-year-old Heather Gloe, Kin's cousin, was severely wounded in the chest and required immediate medical attention. Harry immediately phoned the sheriff and briefed them on the situation. He held the line open so he could update them as Shirley got more information. Kin placed Heather in his van and started driving. Being near panic, Kin was disoriented and had no idea where to go. Shirley calmly started directing him toward Victor Valley Hospital in Victorville, which was about 15 miles away.

Meanwhile, Harry briefed the sheriff who had two police cars and an ambulance heading toward the scene. Shirley kept reassuring Kin and giving him position updates until he was intercepted by the Highway Patrol who led him to the hospital. Heather went into emergency surgery and was soon in stable condition. Dr. Soo, the surgeon, said time was critical and the quick arrival saved her life.

Since then, Shirley has visited Heather in the hospital. The whole incident took less than 20 minutes but it meant the difference between life and death. I believe that Shirley and Harry both deserve recognition for their quick and positive reaction to such a critical situation. □

Amateur Radio keeps up with runners

On Saturday, 4 April, 11 Amateur Radio operators from North Hills Radio Club (NHRC) and six operators from River City Amateur Radio Club (RCARC) — both of Sacramento — provided communications for the Magical Musical Marathon, which was sponsored by the Fleet Feet Running Club of Sacramento.



John Dowling, WB6PWT, helps a race official at the finish line. Amateur Radio operators kept track of runners and advised officials of when to expect runners at finish line. He also kept track of the wheelchair entrant and the 8-year-old entrant.

One wheelchair participant completed the 12-mile half marathon and one 8-year-old completed the 26-mile full marathon. Both races were started simultaneously by Amateur Radio, although the starts were 12 miles apart.



Bubba Prehoda, grandson of Charles Stoddard, KB6NF, crosses the finish line. At 8 years old, Bubba was the youngest entrant in the marathon. He ran the course in 5 hours, 11 minutes, 50 seconds.

Amateur Radio operators helped with logistics requests and "sag-wagon" requests, and kept track of each race as they progressed to the final finish line. For some, it meant an eight-hour day, operating 2-meter handi-talkies on K6IS/rpt and simplex. K6IS is the North Hills Radio Club's high-level repeater located east of Sacramento which gave excellent service throughout the race.

Radio operators participating were: Robin Alexander, N6CJZ; Ed Anselmo, KB6GX; Nick Barbieri, KB6QI; Ken Blue, WA6HLQ; Bob Cloud, W6CFQ; Frank Dix, KA6ADR; John Dowling, WB6PWT; Jim Feeney, WA6CLZ; Dean Hildabrandt, W6WAH; Don Irving, N6DRB; Smokey Kephart, KA6KIT; Harold Kiem, W6NQU; Russ Kiem, WD6CQH; Mike Lari, WD6EFM; Sherwin MacKenzie, WB6UVD; Dave Martin, WB6YLK; Pete Prior, WB6SCX. □

PART prevents major fire

Submitted by Al Smith, WB1DFO,
Director of PART

A major New Hampshire forest fire was averted on Sunday, 29 March when an Amateur Radio operator Eric Poole, WA1RKT, flying an airplane over Nashua, New Hampshire spotted a large wooded area burning west of Route 3, south of the Federal Aviation Administration building between Spit Brook Road and Exit 4.

He communicated that information to the Amateur Radio Club Station of PART, the Police Amateur Radio Team located at Police Headquarters in Westford, asking that his information be relayed to the Fire

Department in Nashua, New Hampshire. Harlan Miller, K1TT, PART's control operator for the day complied.

The reporting radio amateur operator then circled the area awaiting the arrival of the fire apparatus which he then directed to the precise location which was inaccessible from city streets.

PART, now serving in its second year as a 24-hour emergency monitoring station, is recognized as the only such Amateur Radio station in the country, and has handled over 225 calls since its inception 14 months ago. — Westford Eagle, MA □

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Lucky day for mountain travelers

Bob Terrel

The quick storm of 22 March that dumped up to 21 inches of snow on the mountains caught hundreds of motorists unaware. Many were stranded on highways that became impassable as the day wore on.

In an emergency situation like that, no one can be handier than an Amateur Radio operator, and on that day — as luck would have it — there was plenty of help at hand.

Among the stranded motorists were quite a few members of the Western Carolina Amateur Radio Society who were returning from the North Carolina State Ham Convention in Charlotte.

No one likes to be stranded in a snowstorm. It can be downright dangerous. But those hams were in hog heaven.

Using repeaters located on top of Mount Pisgah, Bearwallow Mountain, and Spivey Mountain, they established an emergency network throughout the affected mountain areas of North Carolina and upper South Carolina.

Ham operators who had reached home from the convention manned their sets and joined in the network, and soon the whole area was connected with communications. They broadcast road and traffic conditions, health and welfare reports, and numerous requests for emergency help.

Possibly the most dramatic rescue of the day came that evening through Dan Henderson of Skyland, who was serving as net control of the impromptu emergency network.

Norman Harrill of Asheville, an amateur operator, was taking his son back to Appalachian State University in Boone when the generator on his car quit on an isolated stretch of road north of Marion.

Harrill knew his car was losing battery power and he could only partially reach the nearest repeater. But by using "two kerchunks for yes and one for no," as amateurs are trained to do, Henderson was able to determine Harrill's approximate location. While a student at ASU, Henderson had traveled the road many times on which the Harrills were stranded.

Henderson rigged a contact with two operators in Marion and relayed the information about Harrill to them. They in turn contacted the McDowell County Rescue Squad, and after several anxious hours, Harrill "kerchunked" the repeater to let the network know that help was in sight. The rescue squad brought both Harrills safely off the mountain.

Jim Luther and Headlee Howard, both of Asheville, coordinated activities on the Pisgah and Spivey repeaters, and Amateur Radio operators from as far away as Knoxville joined in the networks.

By the following morning, all major highways were cleared and all motorists who had requested aid were accounted for, in good condition, and back on their way to wherever.

Many people, amateurs and non-amateurs alike, were grateful for the work and concern shown by the mountain Amateur Radio operators.

— The Asheville Citizen, NC

ED: This article was submitted by Bob Grove, WA4PYQ, who was one of the amateurs returning through the mountains after the hamfest. He tells us, "I was luckier than most... I had food poisoning and left early!"

Amateurs who care

Jim Turner, WA5EWB

In our hobby, a fair amount of operations fall into the 'Public Service' or 'Public Interest' category. Everyone knows of emergency or disaster nets, health and welfare, traffic nets, and the like. Anyone who has ever been a participant in such activities knows they are usually interesting, sometimes quite hectic, always a great deal of work and mostly quite rewarding to the operators, who know their efforts have been of benefit to someone, somewhere.

During this Yuletide season, several Dallas-area amateurs have added a bit more to this category. The idea germinated just before Christmas 1979, following a visit to the Scottish Rite Crippled Children's Hospital, when a small group of amateurs conceived a plan to add a bit of cheer to some of these children's Christmas. Recruiting a few others, this bunch set up a Santa Claus base, sent portable 2-meter units to the hospital and let some young ones talk to Santa over the radio.

This idea grew and blossomed in an incredibly short time. While the original intention was merely to let the kids talk to Santa, cash donations suddenly began arriving from other amateur and non-amateur listeners. A fund was established; and, as the children spoke to Santa and expressed a desire for some particular toy or gift, the originators of this group saw to it that each child received exactly the item requested. The news spread like wildfire; a second visit to handicapped and terminally ill children in another hospital followed, and was covered by local TV stations.

Following the phenomenal success of this spur-of-the-moment idea, plans were made to do the same this year. However, this year, the ball began rolling earlier. With the donations not used in 1979, the Dallas Amateur Radio Operators Handicapped Children's Christmas Fund was established. Donations trickled in all year, and as the season approached, fund-raising events such as benefit dinners, raffles and the like were held; plus donations from other amateurs and non-amateurs, (some of which were quite substantial) enabled the fund to collect several thousand dollars.

Radio visits with Santa began in early December; this time, not only with those children confined to hospitals but to out-

patients at their homes. This activity has covered about 300 children this season. Santa's helpers around Dallas have been very busy this year; not only in going portable all over the Metroplex, but in buying, wrapping and delivering presents.

This effort was not put together or even sponsored by any organized Amateur Radio club. It was the result of the efforts of several individual radio amateurs, working only to provide some joy to those who would normally have a lonely season, as well as a few who are no longer with us. Several clubs did donate to the fund, and provided the use of repeaters, links between repeaters, etc. Response to this effort was great. Local amateurs kept off the repeaters "linked" to the North Pole; parents of the children involved were very grateful. Traveling amateurs passing through during the Santa Claus QSO's were very complimentary in their remarks. Hopefully, some carried the message to their own locales; maybe in future years we will hear 'CQ North Pole, CQ Santa Claus' from other cities.

Many, many radio amateurs were active in this effort — too many to list all names and calls here. However, special recognition should go to Bob Allen, WB5ZQT and his wife Helen, WB5ZQS, who essentially started the whole thing. Recognition is also due Tommy Donald, KB5HQ and XYL Patsy; Dave Logan, K5CYB, Luke Davis, KJ5U, and Bill Adamson, WA5SKY. These folks did the lion's share of organizing the fund-raising activities, recruiting help and spending much of their personal time keeping the snowball rolling.

Recognition is also due Rob Tubbs, WD5OQG, who — being handicapped himself, and the father of four handicapped children — was able to provide a list of the out-patients, due to past close association with the hospital.

Having been an "elf" myself this year, and having departed some visits with a constriction in my throat and eyesight somewhat misty, I have discovered a new dimension of our hobby not encountered in the other forms of Public Service work. I discovered Public Interest — interest in handicapped, retarded or seriously ill young children, who would otherwise have had little or no joy this Christmas. Happiness was spread by certain amateurs who care, and the story should be told.

Hospital gets help

George G. Manning, K2RRR

Once again, radio amateurs lent a well-needed hand on the evening of 29-30 January between 10:00 p.m. and 12:15 a.m. During those hours, the United Hospital in Portchester, New York, in Eastern Westchester County would have been without internal communications except for the assistance of 16 Amateur Radio operators, most of whom were members of the Westchester Emergency Communications Association, Inc.

After having experienced difficulties with their internal telephone system, hospital authorities learned it would have to be taken completely out of service for repairs to be made. After discovering that the radio communications provided by their own security forces would not be adequate, they turned to Portchester Civil Defense for assistance. Portchester authorities referred the hospital to Sandy Fried, N2SF, who is the radio officer for Westchester County. Sandy then got in touch with Gil Simon, KA2GJI, the Emergency Coordinator for Westchester County.

Acting together, Gil and Sandy assembled 16 experienced operators on only a few hours' notice. Communications were provided at the hospital, between the Emergency Room, Nursing Office, Diagnostic Laboratories, and X-Ray Services.

Since all communications were within only a few hundred yards of each of the operators, the simplex frequency of 146.52 MHz was used. All communications went smoothly; hospital authorities were favorably impressed with the assistance offered by Amateur Radio operators.

Amateurs taking part were: Gil Simon, KA2GJI; Allen Sniffen, WB2IXR; Mike Troy, AJ1J; Stan Zak, K2SJO; Phil Fiol, WB2BMC; Bob Fern, K2AMU; Willard Smith, K2CFX; Paul Vydareny, WB2VUK; Marty Kealty, WA2MZJ; Harold Katcher, WB2HQK; Amy Katcher, WA2SIA; Joe Melhado, WB2SQF; Bob Steinberg, WA2KHR; Bernie Copparella, WA2MLG; Mike Zydiak, WB2GTP; and Nick Gallo, K2ZVI.



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Looking for a nominee as "Mister Communications"? How about WA1SPM — Donald K. deNeuf!

He has "spent a lifetime in the pursuit of long-distance transmission of thought and information from one person to another, or to many simultaneously."

Don's awards, honors and commendations have poured in from high places: from important officials of the United Nations, a medal from Italy, heartfelt praise from executives of the UPI, AP, FCC and others — all attesting to his well-rounded

knowledge and skill in the world of communication. Among other posts, he served many years as president of Press Wireless, Inc.

How did it start? At age 9, in Seattle. He rigged a blinker light in his home to communicate with a pal several blocks away. It was inevitable he would experiment with wireless in those exciting days; so in 1920, he went on the air as 6ACZ (in Petaluma, California) by borrowing the spark coil from his brother's Model T and listening courtesy of a "cat whisker." He and Dalt Bergsted, W6AUH, worked out their math homework with this system, Dalt having his own station as well.

When Don tuned in an SOS from the stricken *SS Alaska* a year later, he resolved to become a sea-going operator. Serious study produced his First Class Commercial license while still a junior in high school; once out, he was assigned a post on that glamour ship of the Pacific, the favorite of Hawaii-bound celebrities — the *SS Lurline*.

Add a couple of round-the-world voyages and he'd earned the coveted "pink ticket" of the time — the Extra First Class Commercial (and only the fourth to be so issued).

Ashore, he worked two years with RCA, the highlight of which came when Don was the ground communicator in San Francisco as the Graf Zeppelin flew from Tokyo to the United States. He still has the undulator ink recording of her CW signals made that day in 1929.

Shortly after, Don moved to New York and joined a newly-formed company



Donald deNeuf, WA1SPM

called Press Wireless, which was to make history by filling the need for a rapid method of exchanging press and other news on a global basis.

"It was formed," he recalls, "by a group of newspapers and licensed by the Federal Radio Commission to operate on a number of short-wave frequencies."

The first station was set up in Needham, Massachusetts, to receive news from London via another transmitter in Halifax. Don deNeuf's passion for communications had found an ideal home.

"Stations were then built at Long Island, San Francisco and Honolulu. A unique arrangement was also made to lease PTT transmitters and receivers at Paris, where American news services could centralize their dispatches from other European cities. Press Wireless was growing, assembling a large staff of engineers and operators — many being Amateur Radio licensees. Before long, our company was truly worldwide."

And the equipment grew in sophistication. New techniques were employed, such as FSK for both RTTY and radiophoto-facsimile, "Duo-Plex" keying and the like.

"The company even manufactured its own HF rigs — some up to 50,000 watts, as well as fixed-frequency receivers for multiple point presscasts and photocasts from news agencies.

"PW served 62 countries and carried more than 450 million words a year." It had 57 HF transmitters, and one 500-acre antenna farm sprouted more than 70 antennae!

It is difficult to overstate what was accomplished. At last, "For the first time in history, millions of people in one part of the world were quickly informed of news events taking place elsewhere, via newspapers and broadcasting stations." Even airline communications went through the facilities, and our State

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Department was well-served, too.

The story deserves an entire book.

Don is the one to write it, and we hope he will! He is a dedicated historian and writes many articles detailing wireless and the development of CW, ship operating, foreign codes, the Graf Zeppelin, and all sorts of early communications between humans.

"I shudder at leaving a vacuum on some of the history of past telecommunications! I hope we won't have a repetition in telecoms as has happened in parts of the archeological field. Just how the pyramids were constructed is still not fully understood, because nobody took the time to record the details," he says.

"Recently, I wrote to a major railroad company asking for some details about an old system of dispatching. They told me all the files were burned years ago!"

Don plans to record as much as he can possibly remember — and that is monumental.

World War II took him away from Press Wireless and into the Navy. Afterward, he spent time in another fascinating new area of the field — the Rural Radio Network of New York State. There was a great need among farmers for prompt weather and market information. Many of them found it essential for economic survival, since much of the area was isolated.

FM broadcast stations were constructed atop mountains, within line of sight of each other, enabling the relay of programs and news. Don became general manager of Rural Radio Network, and later was highly praised for his unusual combination of engineering and administrative abilities.

Because the weather moves from west to east, the stations would report their local conditions in that direction, winning wholehearted cooperation by the U.S. Weather Bureau, which in turn could supply detailed forecasts. This attracted a network of major AM broadcast stations to participate as well. Naturally, news, weather and market information was combined with music programming.

"WOR-FM," Don explained, "provided an FM multiplex feed to the network from the Columbia School of Journalism which issued a facsimile newspaper twice a day. Also, special weather forecast maps were transmitted.

"One of our stations, WRRL in Ithaca, became the first remote-controlled broadcast station in the USA (July 1952) to be controlled solely through the carrier of another FM station." The control signals and telemetering were transmitted through ultrasonic tones superimposed on the FM carriers.

Don also served as chief engineer and general manager of the Northeast Radio Corporation. But in 1957, he returned to Press Wireless as executive vice president, and later became president — a position he held until he retired in 1969. (Obviously he finds it impossible to "retire" from responsibility.)

He had been charged with a major responsibility in 1962. "It was at the time of the Cuban missile crisis. On a Friday night, the Director of Communications at the United Nations called us with a request which he admitted was next to impossible to fill. He had to have a complete United Nations radio-teletypewriter station ready to air-ship to Cuba the following Monday morning. Not only did a transmitter, receivers, terminal gear, and gas engine power supplies have to be assembled, but entire antenna systems — everything — complete with paper, ribbons and spare parts!"

Well, the Secretary-General of the United Nations — who was in Havana with Prime Minister Castro — was able to

be in direct contact with the United Nations headquarters in New York — on schedule.

As early as 1960, Don was appointed to the original Ad Hoc Satellite Communications Committee, which led to the establishment of COMSAT. He was also deeply interested in wide-band undersea coaxial cables as well as geostationary satellites, with their tremendous expansion of voice channels. He remains fascinated by the possibilities of computers and what they will mean to all of us.

Since "retiring," he's been busy. The Associated Press asked him to attend a conference of the ITU (International Telecommunications Union) in Geneva, he has been a member of the FCC Industry Advisory Committee. At home, he and his wife, Ruth (a nurse), maintain an antique business and still find time to drive the local volunteer ambulance of Southbury, Connecticut.

He's a life member of IEEE (Institute of Electrical and Electronic Engineers) and belongs to many other prestigious groups. He's a fellow of the Radio Club of America, holds the Houck Award from the Antique Wireless Association for

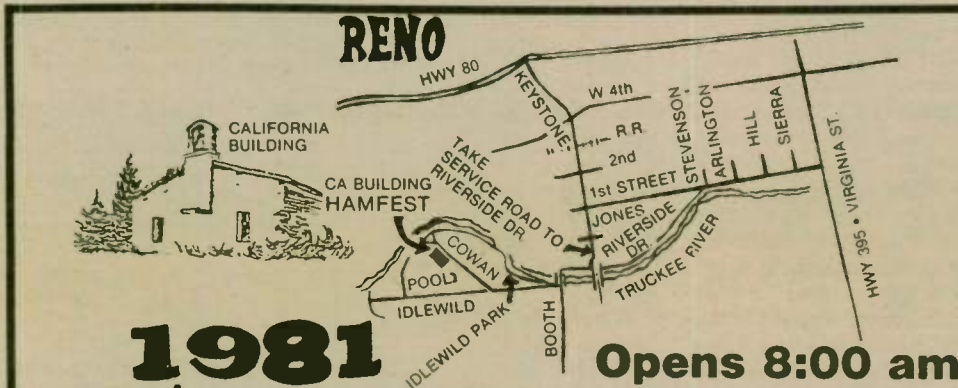
historical documentation, the 60-year Golden Award from QCWA and the Marconi Memorial Gold Medal of Honor from the Veteran Wireless Operators Association, among others. Plus, he's been made a Knight Officer of the Italian Order of Merit, which recognized his assistance to CIRMA — a medical-aid service for ships at sea.

Does he find time for hamming? Certainly! On CW, of course. (He's proficient in both American and International.) "To me," he says, "CW stimulates the mind, as does the use of a foreign language. I keep a daily net sked with longtime Press Wireless associates across the USA.

"I have regular global contacts with a wide variety of wonderful people: blind operators, excellent YL operators, retired military generals, doctors, policemen, artists, a 72-year-old Alitalia Airline captain in Rome, and a retired Indian army general in Poona who had operated the largest poultry farm in India, only to have it completely wiped out overnight during a terrible monsoon!" Obviously at 74, he is rich with DX friends.

And Amateur Radio itself is rich, to be able to count WA1SPM as a member. □

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Silent Key

Submitted by Pauline Jackson

Active Amateur Radio operator Harry W. Jackson, 75, of Bremerton, Washington, died recently.

A Master Mason of Renton Lodge 29 on Bainbridge Island, he was a member of the Society of Wireless Pioneers for 25 years, and a member of the Amateur Radio Association of Bremerton.

Born 7 October 1905 in Fonda, Iowa, he joined the U.S. Navy at 17. He was on *Corrigidor* and was a prisoner of war for 3½ years in Japan during World War II.

He married Pauline Sherman in Yakima on 10 February 1946.

The couple made their first home at Battle Point on Bainbridge Island, where he was officer in charge. He had left the Navy for a short time, so had served 27 years when he retired in 1956. He moved to Bremerton in 1960. □

Masonic nets

Ted Buchheimer, WD4NCY

There are in existence several Masonically-affiliated Amateur Radio networks which welcome all newcomers. While primarily operated by and for Masons and members of appendant orders, the only qualifications for joining these nets are an FCC Amateur Radio license and a desire for good fellowship.

The nets are too numerous to list here, but a good one to start off with is the Fellowship Net which meets weekdays at 1700 GMT on 14328 kc's, with Brother Tony Zydycrn, WA6DSV, at the control station. Others who may be contacted are Brothers Joe Harant, W9FLA; Lee Kariger, WA6VYQ; or Domenic (Moe) Palotto, W9BOX. Addresses are in the Amateur Radio Callbook. □

Masonic lodge forms network

Submitted by Bill Cooney, W8LM

What may be a "first" within the 22nd Masonic District is the formation and operation of an Amateur Radio network by the five principal officers of a single Masonic lodge, Glenville No. 618: F. & A.M. W. Bro. Michael K. Upson, W.M., (W8PTI); Senior and Junior Wardens, Bros. Edward W. Lintala (WB8ZGK) and Donald A. Ritchie (K8ZGW); and Senior and Junior Deacons, Bros. Thomas R. Chaney (WB8RGC) and Henry M. Lewis (W8HAL), stated Amateur Radio Square Club secretary, Bro. Clifford E. Bade (W8CJB), who serves as net control.

Operating on 28.600 MHz at 2030 GMT on Sundays in the 10-meter band, the nearly 20-year-old club welcomes other radio operators into its net said Bade.

—The Western Reserve Mason, OH □

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Gordon West,
WB6NOA

Q and A

COMMISSION
COMMENTS®

An Editorial

Plain English baloney

My source at the FCC in Washington felt good about the new rules as rewritten into plain English.

"I think the amateur community will be quite pleased with the revision of the Amateur Radio Service rules into 'plain English.' I think everyone here did a good job in the translation."

No, I won't name my source, but this FCC person is one of the hardest working people the Commission has ever had.

But something was left out in the translation. In fact, when reviewing the new plain English rules, a lot was left out. In fact, so much was left out that it could seriously demolish some of the fundamental principles that the Amateur Radio Service is based on.

Am I overreacting? Hardly.

97.1

Let's take the original part 97.1 — the basis and purpose of the Amateur Radio Service. You will recall during your days of preparing for the FCC Novice and Tech Exam that there are five points to remember for the basis and purpose of our Service.

A. . . . voluntary noncommercial communication service particularly with respect to provide emergency communications.

B. . . . contribute to the advancement of the radio art.

C. . . . advancing skills in both the communication and technical phases . . .

D. . . . expansion of the existing reservoir . . . trained operators, technicians, and electronic experts.

E. . . . enhance international good will.

Read part 97.1 yourself. Pay close attention to the very first principle: "recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications."

Now let's take a look at the plain English Amateur Radio rule 1 that

describes what the Amateur Radio Service is.

"The Amateur Radio Service is for persons interested in the technical side of radio communications. They use the service only for their own personal satisfaction and get no financial benefit from its use. They learn about radio, communicate with other operators around the world, and find better ways to communicate by radio." Hey folks, the FCC just wiped out any mention of our fundamental purpose of providing emergency communications to the community. They wiped out that we help advance the radio art. They obliterated the fact that we are advancing skills in communications as well as in the technical phases of radio. They make almost no mention at all of the fact that Amateur Radio provides a very important part in international good will.

Hey folks, they completely left out emergency communications! They left out communications for our community in case of disasters or war! They left out public service! The new rules make amateurs sound like a bunch of glorified CB radio operators. How do you like that?

I don't buy it! What the FCC has done is to come up with a whole new set of rules under the guise of simply rewriting the old ones. Baloney. Just baloney!

Read the rules yourself, side by side. Watch how the rules change. Take a look at repeaters and remote bases. Not only do they leave out some stuff, but they add new stuff.

FCC comments

"I think every repeater operator and remote operator should look at the new plain English rules," comments a repeater and remote base operator who serves as a committee member for TASMA, 2-meter Area Spectrum Management Association. "Who do they think they are kidding? What they left out in translation was made up in new rule adaptation!"

Granted, some services have benefited by plain English rules. Citizens band radio operators found the new plain English CB radio rules ideal. It talks in their kind of language, and they understand it.

Mariners who have seen the new plain English marine radio rules also like what they read. Since most mariners are non-technical with radio, the new rules make things quite understandable for them.

But rewriting the present rules for the Amateur Radio Service in CB baby talk is not only a slap in the face to the Amateur Radio Service, but an outright insult. As communications specialists, I think we deserve a little more class in our rules. Believe it or not, the majority of radio amateurs are not illiterate high school

dropouts.

FCC questions and answers

The FCC is quite serious about the intent of the new plain English rules — they are intended to clear up "gray areas" that may be hard to translate in the present rules.

Were the plain English rules specifically intended to slide through some subtle changes?

"It is primarily a plain language rewrite. We have included a few minor rule changes. We specifically name which rules we have changed. One of the rule changes is the deletion of all logging requirement and third party logging."

What about those other slight changes?

"... If there are any subtle changes, we don't expect anyone to object to them. The changes are for deregulation. They are also good for the public. It helps us take some of the burden of enforcement off of the Commission. We don't expect anyone to object. We don't consider some of these changes significant."

Further questioning our FCC Washington staff member, who incidentally is one of the best people amateurs have as a friend at the FCC, this person comments, "The plain English rules were written by and for amateurs. John Johnston, J. Jackson, and Joe Johnson are all amateurs. Certainly they're concerned about the Amateur Radio Service."

Who decided we needed new plain English rules — amateurs or the FCC?

It came from us, because of the success with the new CB plain English rules."

Why for Amateur Radio operators?

"Because of the general trend for deregulation, and clarifying in plain language rules for the public to interpret."

The FCC has a comment cut-off date of 19 June 1981. Reply comments on or before 19 August 1981. Amateur Radio operators are encouraged to send to the FCC timely comments before action on this proposed rule-making proceeding takes place.

My thanks go to the FCC for this candid interview. It is my personal opinion the FCC did not intentionally try and pull one over on us. However, I suggest amateurs read over the proposed rules, and beware. □



American
Radio
Relay
League

J.A. "Doc" Gmelin
W6ZRJ

Past Director, Pacific Division, ARRL
Honorary Vice-President

Last month I briefly discussed the ARRL emergency communications organization and the ARRL Amateur Radio Emergency Service. The basic leadership structure of the ARES is at the section level; Section Emergency Coordinators, Area Coordinators and Emergency Coordinators — who are at the local level — are the major appointments of the ARES.

The League, through Headquarters and volunteers in the field, has come up with suggested organizational structures and plans which can be used in setting up an ARES organization.

Some of these plans come from specific areas of the country where a particular plan was set up and found to work quite well. Others were thought up at Headquarters to give a general idea of what kinds of organization might best work at local jurisdictions anywhere in the country.

In the League's various publications covering emergency communications, one can find examples of these various plans, complete with charts and diagrams which lay out in detail how the ARES plan should be set up and how it should function.



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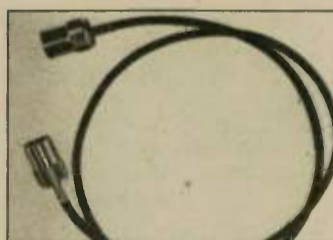
Galatians 6:10

ARMS nets		Local Time	
Eastern	M, W, F	7:00 am	3907
Mid-West	Sat	8:30 am	3907
South-East	Sat	7:30 am	3907
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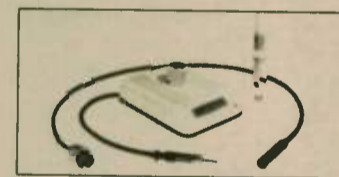
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Note the word *should*, because *should* and *do* are very different in meaning. In my experience, I have never seen a local plan that followed to any great extent those plans outlined in League publications. Even plans which I have seen set up, only work to a limited extent.

What actually happens in emergency communications work involving amateurs, and why don't the plans set up function the way we've organized them to function?

There are a number of reasons emergency plans don't work, and it is unrealistic to expect that any local situation will follow any kind of structure at all.

One of the major drawbacks of any planned ARES organization is the fact that when the chips are down, those who have taken part in the planning and organizational work often are *only a small percentage* of the amateurs who actually work in the communications emergency.

As the late Harry Engwicht, W6HC — a past director of the Pacific Division — put it after one emergency communications disaster, "They come out of the woodwork." What he meant was that when amateurs hear there is a disaster that might need amateur communications, all seem to want to take part. It is unfortunate that so many of these "good-hearted" volunteers have not taken the time to train for such situations.

The result of this is the fact that many of the "volunteers" do more harm than good. This often leads to chaotic operations on amateur nets which, without these "volunteers," might be able to efficiently handle the disaster situation.

Such situations in disaster communications emergencies led Bill Ray, W6KZF, former Section Emergency Coordinator to coin the phrase, "In an emergency, the best thing you can do is 'Shut up and listen.'"

But my reason for pointing out this problem, is *just the fact* that it does happen. *Nothing* is said about such situations in the League's publications about disaster planning. Nowhere in any of the charts and diagrams does it show how to handle this problem. But it does exist, and we must work with the situation as best we can.

Another reason emergency communications plans sometimes don't work very well is the fact that amateurs use many different bands and communications modes. An Emergency Coordinator in a local area may set up and organize an emergency net on a meter repeater, and have it working very well in routine tests, week after week. Along comes an emergency, and while this local net works OK and does handle some of the traffic involved, it turns out that most of the work is done on, say, 40-meter phone by a group that has done no practicing at all and is in no way connected with the ARES or ARRL.

In fact the group on 40 meters turns out to work more efficiently and ends up getting the bulk of the credit for what happened. Such an event can be very discouraging to an EC who has worked hard, perhaps over a period of years, and who gets no credit for what he has done.

It is human nature to want to receive recognition for the work we do, but the fact is we do not always receive recognition. Sometimes hard workers quit the ARES because of this fact. This is a reality the League must face in organizing emergency communications planning.

Nowhere does it say this in the League's idealized ARES plans. Nowhere does it appear on the charts or diagrams.

A friend of mine, who is a Master of a Masonic lodge, put it very well at a meeting when he said, "There is no limit to what you can accomplish if you don't

care who gets the credit." But most of us *do* care who gets the credit.

Perhaps recognition is the pay volunteers receive for the work they do; when they don't receive the credit, they sometimes quit. This reality must be taken into account when organizing ARES groups. And why should it be that nets and groups who are not involved with the ARES are sometimes the ones who turn out to do the bulk of the work and thus get most of the credit?

One reason is that, although these nets may not conduct ARES or emergency drills, they are getting plenty of practice by doing everyday traffic operation.

I have often heard Emergency Coor-

dinators and ARES net members who say they are "emergency communications operators" and NOT TRAFFIC OPERATORS. They would never think of handling a single piece of written traffic on a routine basis.

Not traffic operators? Handling traffic is *exactly what we do* in an emergency situation! Although there may be little or no written communications in the early stages of a disaster operation, it isn't very long before the agencies we serve *want everything in writing*.

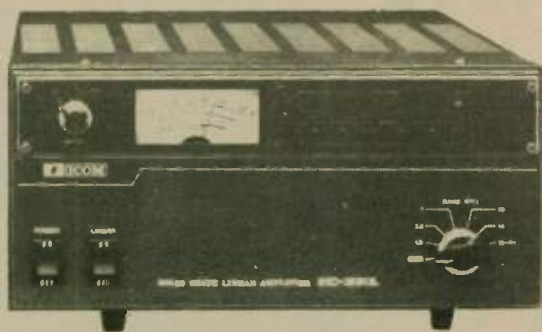
Those who have experience in handling written traffic are then the ones who end up carrying the load. Often, they are amateurs who are not League members

and would never think of joining ARES. This is also a reality we must consider when setting up emergency communications plans.

A large percentage of radio amateurs work limited bands and frequencies and use only one communications mode. The result is that we have nets on many different bands, using several different modes. While this is an advantage in a way, it leads to very difficult coordination problems. Often there is little or no communication between the various bands and modes; and to complicate the problem more, many amateurs *want* no com-

(please turn to page 26)

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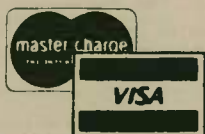
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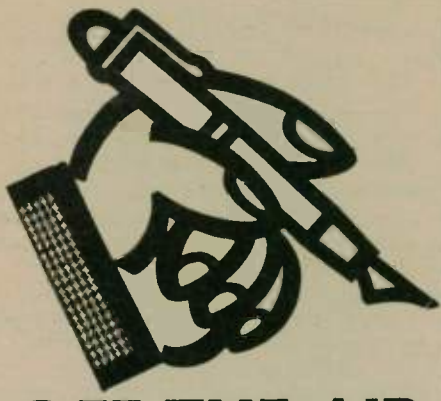
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OFF THE AIR

Bash book a better mousetrap

I note with a chuckle that is more tragic than humorous the clear inconsistency being shown these days about the Dick Bash "Final Exam" studies.

Bash's work seems to be nothing more than a "better mousetrap" beside the old ARRL license manuals. Why, when I got my license in the mid-1950's, I recognized most of the questions as being verbatim the same as published in the ARRL study guide, which I had studied in preparation. As I recall, the ARRL text even stated something like this: "If you know all the answers to these questions, you should have no trouble passing." I carried it one step further; figuring that 70 percent or so was passing, when I thought I had mastered 7/10th of the ARRL book, I filed for my test — and passed it.

Besides that, I have a study guide published by the FCC itself to cover the materials on commercial radio examinations. It dates from quite a few years ago, to be sure, and I don't know whether FCC still issues this sort of thing or not. But it DID. Its contents are questions without answers, except for definitions and excerpts from law, and I would surely guess that the questions are verbatim from FCC exams. Publication of the questions would adequately spill the beans, whether answers are provided or not. So why the fuss?

Sincerely,
Harrison Leon Church, W0KXP/9
Lebanon, Illinois

March article 'hits home'

Norm Brooks, K6FO:

Your article in the March 1981 issue of *Worldradio* regarding errors and deficiencies in the 1981 ARRL Handbook hit home in an area that may not have been called to your attention. Specifically, on pages 6-24, Chapter 6, they indicate that the static pressure of air, using water in a manometer, they indicate that the static pressure of air, using water in a manometer, is half the total vertical displacement in the two sides of the manometer. This assertion just about caused me to drop my bridgework because, if true, I have been seriously undercooling the 8877 in my home-brew linear. At some \$400 current replacement cost, I don't enjoy the spectre of an early tube failure caused by my "inadequate" design.

I have always been conditioned to believe that the ARRL handbook is technically impeccable; hence my initial shock — especially since I have always used the total height differential between the two sides of the manometer tube as a

measure of the air static pressure in the plenum beneath the tube socket.

Checks with some of my more knowledgeable colleagues here at SRI International indicate I was probably right and the handbook was wrong. The enclosed excerpts from the third edition of *Handbook of Engineering Fundamentals* seem to confirm this (see Figure 11, "Simple Manometer" and the accompanying dissertation and equations at pp. 581 and 582).

I don't think that amateurs following

the ARRL advice with the blowers listed in the handbook will be able to achieve the values cited for those blowers by using the measurement convention diagrammed in the book, at least when working with an 8877 and the listed Eimac socket and chimney. With a Dayton 2C781, I am just barely able to get 0.41" H₂O total differential, and I'm darned sure that the Dayton 4C440 that they show as meeting the requirement for an 8877 won't work up 0.8" total differential (0.4" half differential) that they show as necessary.

I don't know whether it will do any good to write to ARRL; however, I suppose I should have a go at it in the hope they will correct themselves before a bunch of poor guys try to get an inadequate blower to do something it wasn't designed to do. Incidentally, using Dayton's own curves for their various blowers, and Eimac's requirement for 0.6" H₂O for 1500 watts dissipation (this value should be adopted as a safety factor even though we are probably only going to dissipate some 400 watts), the 4C440 and the 4C004 are not strong enough.



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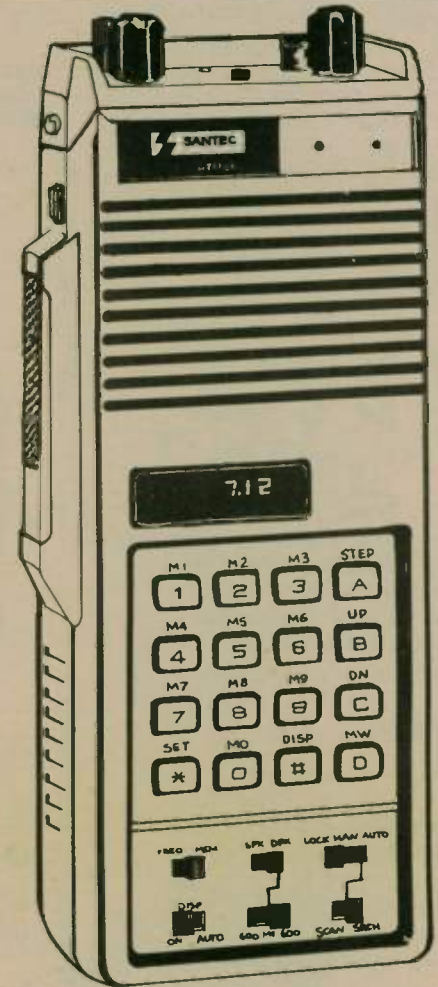
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From long and sad experience, most old-timers have learned that heat is the enemy of tubes. It is difficult to over-do the cooling of modern air-cooled tubes. In my latest 8877 linear, I have a horrendous blower which gives me 0.7" H₂O and the

air still comes out pretty warm at full dissipation.

73
W.D. Tiffany, W6GNX
Menlo Park, California

Ironically, I became involved in law enforcement 21 years later, and now everyone assumes I requested the call for that reason.

Sincerely,
Duane Snyder, K9PIG
Morton, Illinois

Just a coincidence

I was impressed by the fine-looking "ham" depicted on Gene's (WB3FTJ) QSL card pictured in the April 1981 Worldradio.

My QSL features what is evidently a near relative of Gene's "ham".

My call, K9PIG, dates back to '57 when I received KN9PIG purely by chance.

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Colvins busy as ever

Dear Friends,

We recently concluded operation at FM0FOL. Thanks to Gilles Jeannet, FM7AD, we stayed in a house owned by his mother in northern Martinique. We participated in both the CW and Phone portions of the ARRL International DX contests. Our score in the two contests, combined, was close to 5 million points. Thanks to the two contests, we made some 12,000 QSOs from FM0FOL.

Between 12 October 1980 and 8 March 1981, we made 55,000 QSOs operating from W6KG/SV9, W6QL/SV5, W6KG/4X, FG0FOL/FS, FG0FOK, and FM0FOL. We returned to the United States to make a talk at the DX portion of the National ARRL Convention in Orlando, Florida. From there, we went to Dallas, Texas, and talked at a special combined meeting of the Richardson Wireless Club and the North Texas Contest Club. We are scheduled next to attend a DX meeting in Cleveland, Ohio, and then on to the big Dayton, Ohio Hamvention, where we will be on the DX program as well as being the principal speakers at the Hamvention banquet. The week after that, we will participate in the joint meeting of the Northern and Southern California DX Clubs in Visalia, California.

We expect to continue our YASME DXpedition operations overseas in the early fall.

If any of you can find a way for us to obtain permission to operate in a very rare spot such as Kamaran, China, Burma or Albania, please let us know and we will go there and promise to work you from there.

73 es 88
Lloyd Colvin, W6KG
Iris Colvin, W6QL

Further comments on NNN

I read with interest (Armond Brattland) K6EA's reply to my letter printed in April Worldradio. I had difficulty in believing that we were talking about the same thing, his reaction was so different (than what I expected) from what I wrote.

I think that he wrote perhaps a little harsher than he intended, but I was deeply surprised by what was written. I've had local hams ask: "What's going on between you and K6EA?" I tell them that I honestly don't know, I didn't think I'd written anything out of the ordinary, and I was just as surprised as they were.

No one will deny the fact that since it began, NNN (National Novice Net) has had trouble with support. In the November '78, December '79, January, April, May, October, December 1980 and April '81 issues are complaints about lack of support for NNN and other Novice-oriented nets. I simply tried to point out that NNN is in serious trouble and unless people wake up and support the net, it will disappear like other Novice traffic nets. Remember, NNN was suspended in 1980 for about three months because there was no support. The next time might be permanent. I hope NNN will gain the support it deserves and becomes a success, but it's going to take a lot of work.

I've offered to make a phone schedule with 'EA so we can clear the air, but we haven't gotten together yet.

I'm sorry 'EA chose to take my letter the way he did. I certainly didn't intend to start a fight, but I felt I had to write this to defend myself.

Gary Payne, WD6BJK
Fresno, California

Those ads work!

Just thought you might be interested: I had an ad in the April issue for my SBE-34, which I sold on the first phone call. I had three other phone calls and two letters.

Your ads work.

73,
Monty Bancroft, W6NJW
Sun Valley, California

More for less

This issue (May 1981) is the first issue of Worldradio that I have received. I am impressed. Your paper gives me as much as other publications do, at a substantially lower price. Congratulations.

Lowell D. White, KA9AMJ
Annapolis, Illinois

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U.S. QSL

(continued from page 11)

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WA6RZG	WL7AON	W7ID	VE7UC	KA8GCD	KA8KCT	WD8TEU	KA9ICJ	KA0ARP	KA0BVT	WB0GGO	KB0NR
WB6TIJ	KA7AQH	KA7IHZ	WA7UPW	KA8GOB	KA8KGH	W8UPH	KA9IHG	WD0AYT	KA0CNN	KA0HKE	N0ST
WA6TLT	K7BBO	VE7IQ	WB7VFO	KA8GPM	KA8KKY	K8WW	K9IW	KB0BA	WD0CPA	KA0IRH	KB0TL
A16V	VE7BPH	W7IXG	K7VP	VE8HC	KA8KOI	W8YMI	KA9IXM	N0BIW	KA0DGR	KA0JCE	WD0TTL
W6VJ	N7BW	KA7JHG	A17W	KA8HUZ	K8KPM	KA9AEH	KA9IXN	KA0BLF	WD0DNO	K0KBY	N0ZA
K6XZ	VE7BWM	K7JJ	VE7WA	KA8IBJ	KA8KRW	KA9AGB	KA9JFU	WD0BNO	W0EJ	AG0LG	
WB6YBT	NL7C	KA7JPM	VE7XS	WD8ICE	KA8KWB	N9AMC	W9KBD	WD0BQG	KA0FNB	KA0LKN	
VE6ZT	VE7CRM	VE7JW	K7ZRE	KA8IFB	KA8LJD	N9AQB	K9QAM				
VE7ACU	AF7F	W7LUD	KA8BIZ	KA8IFC	KA8LLG	N9ATQ	W9RSZ				
N7AEA	VE7FBS	AG7M	N8BQZ	WD8IJR	K8LWP	W9RSZ	W9SZA				
WL7AHU	KA7FKL	AB7O	WD8COA	KA8ILT	K8MFO	W9AZR	W9RTD				
N7AIG	W7GHT	WB7OVB	KA8DGN	KA8IJZ	K8MN	N9BGS	WB9SMU				
KA7AIT	KA7HCH	WB7RBN	KA8DTN	KG8J	K8OHC	KA9DNG	WB9TXJ				
WB7AJW	KA7HDE	WB7RQK	KA8EEA	KA8JBK	K8OZL	N9BOT	WB9UQO				
				KA8BIZ	WD8QDV	N9BVT	W9WLA				
				KA8SIZ	WD8OP1	KA9CDC	WA9WME				
				WD8JUB	WD8QFY	K9DED	A19X				
				W8JWX	WD8QOU	WD9DVO	WB9YAS				
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The FT-101ZD Mk III is the latest chapter in the success story of the FT-101 line. Armed with new audio filtering for even better selectivity, the FT-101ZD now includes provision for an optional FM or AM unit. Compare features and you'll see why active operators everywhere are upgrading to Yaesu!

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New on the FT-101ZD Mk III is a high-performance audio peak/notch filter. Use the peak filter for single-signal CW reception, or choose the notch filter for nulling out annoying carriers or interfering CW signals. In the CW mode, you can choose between the 2.4 kHz SSB filter and an optional CW filter (600 or 350 Hz) from the mode switch.

Diode Ring Front End

The FT-101ZD now sports a high-level diode ring mixer in the front end. This type of mixer, well known for its strong signal performance, is your assurance of maximum protection from intermod problems on today's crowded bands.

WARC Bands Factory Installed

The FT-101ZD Mk III comes equipped with factory installation of the new 10, 18, and 24 MHz bands recently assigned to the Amateur Service at WARC. In the meantime, use the 10 MHz band for monitoring of WWV!

RF Speech Processor

Not an additional-cost option, the FT-101ZD RF speech processor provides a significant increase in average SSB power output, for added punch in those heavy DX pile-ups. The optimum processor level is easily set via a front panel control.

Worldwide Power Capability

Every FT-101ZD comes equipped with a multi-tap power transformer, which can be easily modified from the stock 117 VAC to 100/110/200/220/234 VAC in minutes. A DC-DC converter is available as an option for mobile or battery operation.

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Designed fundamentally as a high-performance SSB and CW transceiver, the FT-101ZD includes built-in VOX, CW sidetone, semi-break-in T/R control on CW, slow-fast-off AGC selection, level controls for the noise blanker and speech processor, and offset tuning for both transmit and receive. The Mk III optional FM unit may be used for 10 meter FM operation, or choose the optional AM unit for WWV reception or VHF AM work through a transverter (AM and FM units may not both be installed in a single transceiver).

Full Line of Accessories

See your Yaesu dealer for a demonstration of the top performance accessories for the FT-101ZD, such as the FV-101Z External VFO, SP-901P Speaker/Patch, YR-901 CW/RTTY Reader, FC-902 Antenna Tuner, and the FTV-901R VHF/UHF Transverter. Watch for the upcoming FV-101DM Digital Memory VFO, with keyboard frequency entry and scanning in 10 Hz steps!

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During the warranty period, the Authorized Yaesu Dealer from whom you purchased your equipment provides prompt attention to your warranty needs. For long-term servicing after the warranty period, Yaesu is proud to maintain two fully-equipped service centers, one in Cincinnati for our Eastern customers and one in the Los Angeles area for those on the West Coast.

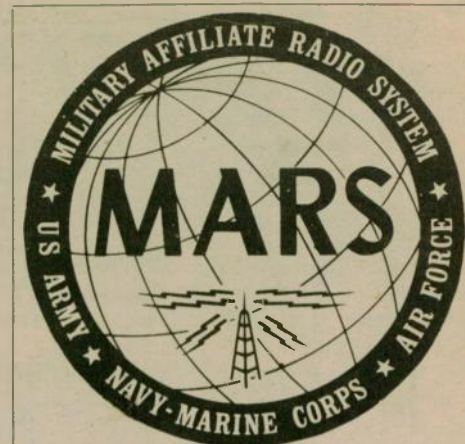
Note: A limited quantity of the earlier FT-101ZD (with AM as standard feature) is still available. See your Yaesu dealer. FT-101ZD Mk III designates transceivers bearing serial #240001 and up, with APF/Notch filter built in and AM/FM units optional.

681

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Vern Hansen,
WB6UWQ/AAA9W

The following article was originally printed in the Daily Review, Hayward, California, under the title of "Waring 6 Archie Cat-Nip."

Archie Waring, 91, of Castro Valley, California, says he stays young by talking on his radio regularly, and flirting with young ladies as much as possible. The first past-time is obligatory; the second is pure pleasure. "A lot of fellows talk just to kill time," says Waring. "If I do something, it's for a point. I like to check in and check out. I'm on both MARS (Military Affiliated Radio System) nets and ham nets. I try to get up on the ham nets at least twice a week.

It's the same with the conventions. Waring used to think nothing of packing his 2-meter unit in a 3/4-ton Chevrolet with a camper shell on the back. He usually traveled by himself, saying that companions he would take along never wanted to go the same places and make the same stops he did. And if he didn't show up at one of these affairs, he would get a lot of anxious calls from people asking if he was okay.

Waring worked as a building contractor until 1950, when his wife was killed and he was hurt badly in an auto accident. He also spent roughly four decades in California Republican politics. "I never ran for public office myself," he says. "I was a loner. More than one governor told me I could have anything I wanted if I would lend him my support. But I never promised anyone my full support, knowing I might have to oppose his policies sometime in the future."

There was one instance in which he did a little arm-twisting and called in a few favors. That was back in the early 1950's, when he campaigned hard for special license plates (bearing call signs) for ham operators. In January 1954, Governor Goodwin Knight issued Waring the first plate bearing his call sign — W6ACN. "I sometimes use Waring Six Archie Cat-Nip when I want to get a laugh over the air," he says.

Waring received his General license at age 63 and qualified for his Advanced license when he was 81. "There's another license above that, but there's nothing in it I really want," he says. "You have to be able to copy 20 words a minute. I can do it, but I have to take it down in longhand. Never could keep it all in my head, even when I was younger."

Waring, who was born in Idaho but moved to Oakland when he was 17, is a distant relative of bandleader Fred Waring. He still has an active contractor's license — #6296. "I liked alteration work better than working on new homes," he said. "I wanted something I could be proud of when I was finished. That's why I never followed up on leads from real estate people. There was too much skinning everything down to the last penny



Archie Waring, W6ACN, works at his station in Castro Valley, California.

on those projects to suit me."

He worked briefly as a Western Union messenger boy back in 1903, but his interest in radio lay dormant until 1919, when a high school boy next door to him started building crystal sets. "I built one for an elderly, retired schoolteacher from one of those Quaker Oats cereal boxes," he says. "I had an aerial running from the roof of her house to a tall eucalyptus tree, and she could get both KGO and KPO. She loved the set, and the last things she asked for when she was dying were her headsets. I was told she put them on, lay back, smiled a bit and died. That memory has meant an awful lot to me."

At home, Waring works out of a small room he has at his daughter's house. The

room is crammed with spare parts, two teletype machines, an exciter, an oscilloscope and various odds and ends.

"I'm not very neat," he confesses. "I have a little trouble keeping my equipment up, too. When I was younger, I could go over plans the night before a job and skim over them the next day to keep them fresh in my mind. Now I have to read a short paragraph three times to remember it. When the amateurs were working on the Mount Diablo fire in the summer of 1977, I thought about going myself. But I don't have the get-up-and-go I used to. I was afraid I'd get stuck on some hillside somewhere." Tell that to anyone who knows him! □

Southeast Idaho should contact Dick Clothier, WA7GFD/AAR0KT. □

MARS members train for SKYWARN

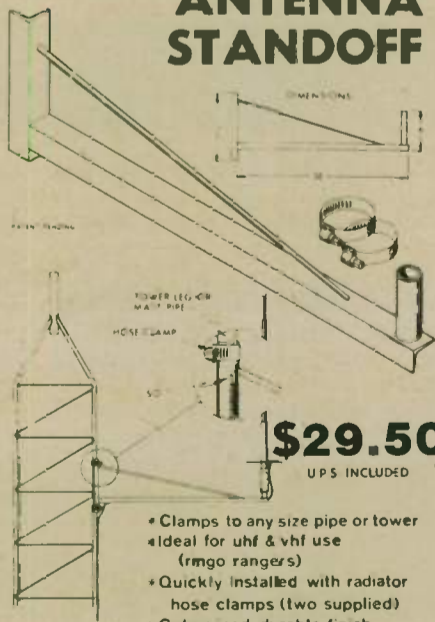
Submitted by Richard Clothier, WA7GFD/AAR0KT, Idaho Emergency Coordinator

Seven East Idaho Army MARS members have received introductory training in the National Weather Service SKYWARN program. The two-hour program was conducted by Bob Glodo, officer in charge of the Pocatello NWS office. Glodo, a 19-year veteran of the NWS, has worked with SKYWARN networks in the Midwest and has had extensive training in hydrology and radar. Army MARS, with its emphasis on emergency communications support, is a natural for this type of network operation. The SKYWARN training is in conjunction with the proposed installation of a VHF MARS repeater on East Twin Butte, west of Idaho Falls, Idaho.

Members in attendance were: Fletcher Norris, AAR0KS; Nick Crookston, AAR0LV; Don Christensen, AAR0LO; Gordon Stanger, AAR0LU; Bill Skaggs, AAR0LZ; Larry Bollschweiler, AAR0AJ, and Dick Clothier, AAR0KT, Idaho Emergency Coordinator for Army MARS.

Upon completion, each member received an accurate rain gauge and printed guide material. Future emergency training is planned, as are drill exercises, involving the NWS and other emergency agencies. Any amateur really interested in emergency communications in

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The station that wins the Station Appearance award this month is shared by a father and son — John Roessler, KB6WB (father) and Joseph Roessler, WD6DPN (son). The station, as you can see, looks very clean and has been built into an attractive wood console, showing that John's two hobbies of Amateur Radio and woodworking go together well.

John writes that he built the console

out of two sheets of 4' x 8' x 1/2" AC plywood, 1" x 2" pine boards and the necessary molding. The finish is of mahogany stain, white stain and two coats of polyurethane. The face plate for the equipment was cut from a piece of masonite. Total cost for all this was \$45. The equipment sets on 1" x 2" runners to enable air to circulate freely.

The equipment in KB6WB's and WD6DPN's station consists of a Kenwood TS-700A, Kenwood PS-30, Kenwood TS-180, Heath SB-200, a Heath HM-2102 alliance control box, a Heath SB-614 monitor scope, a Dentron super-tuner, and a Heath HM-102 wattmeter. In the lower shelf is a Heath HW-101.

John, who is a retired U.S. Air Force communication center supervisor, tells us that the space shown here was a patio before he converted it for use as a radio room.

KB6WB and WD6DPN will be awarded a free year's subscription to *Worldradio* for winning this month. □



This station in El Cajon, California, is shared by John Roessler, KB6WB, and his son Joseph, WD6DPN.

Train your dog!

Yes, you can train your dog with it. Or you can swat mosquitos. Just look how versatile it is — you can get a campfire going with it and also line a birdcage.

What else has so many varied uses? For example: it can wrap fish and also be made into a fireplace log. Pretty terrific, huh? You can use it to mask paint jobs or shield the sun from your eyes. Marvelous!

Just think about it. You could turn it into a kite and then put it at the bottom of the kitty litter box. Use it as a fan during Field Day and then turn it into a glider. Fantastic!

Look at all the things you can do with it, and at such a low price. Think of it; you could use it as a napkin, for collages and many other uses.

And best of all, you could read it. Yes, look at all that *Worldradio* can do for you. Just see page 11. □

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Volunteer FCC DFers wanted?

By the time this reaches you, action may have been taken on the HR 2203 bill to allow the FCC to utilize volunteer Amateur Radio operators to locate and testify against jammers. Whichever way it turns out, there are a number of things we should think about. It could be a great opportunity to end our problem of malicious interference, or a terrible flop. If time still remains, you should plan to send comments to your own representatives, as well as to Congressman William Dannemeyer.

My advance columnist's copy of the May issue of *Worldradio* arrived today, so the following is with very few hours to consider the proper ways to express the thoughts that most quickly surface. We try not to say things in a manner that will alienate readers, since HAPPY FLYERS have numerous important tasks we try to undertake. Please forgive if we fail to state the following in the most palatable manner.

Entrapment

As a deputy sheriff in San Mateo, California, my first concern is proper education of prospective FCC volunteers. It is no secret that the United States justice system bends over backwards to avoid punishing the innocent. This attempt to protect has had the sad effect of allowing many obviously guilty individuals to escape proper punishment.

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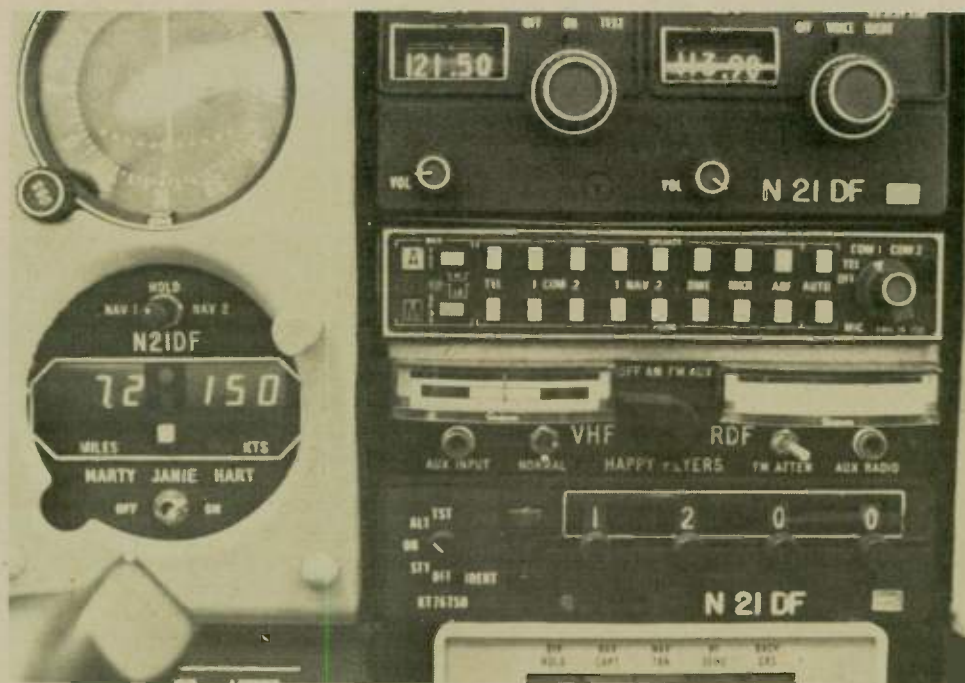
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Closeup of replacement radios in Hart and Janie's airplane after the theft. Hart is attempting to encourage radio owners to engrave their radios with names and/or identifying numbers. The airplane federal registration number was chosen for the plane's radios because any plane owner knows what an "N" number represents. Amateur calls are suggested on Amateur Radio face plates, with drivers license numbers on the inside frames. News on anything relating to recovery or prosecution on radio thefts would be greatly appreciated.

Cases in point are some of those who have shot at presidents in full view of hundreds of actual eyewitnesses, not to mention the millions of TV viewers who have seen close-ups and slow motion replays of the shooting (as in President Reagan's case). The effect it has had at the initial point

of filing complaints (the district attorney's office in our case), is that they tend to accept only cases they feel they have a good chance of winning. Those outside of law enforcement tend to feel any lawbreaker would get "just desserts" if discovered. However, the lawbreakers

usually know they will get off free if the prosecution is unable to prove beyond a "reasonable doubt" that the accused did violate the law in the manner described in the complaint. This fact of life has had a terrible effect on our justice system. When Janie and I took our Police Officers Standard Training (POST), we were told that the most successful part of our justice system was traffic violations. This is because justice is sure and quick. In the criminal system, it is well-known that those who can afford a really top-notch lawyer can often get away scot-free through technicalities. It will be very interesting to see what happens to the person who shot President Reagan, since he was caught in the act in front of millions.

All of the above is given to try to help you understand the position the FCC has been in all these years. It is always easy to be angry at those in responsible positions when they do not do what you think they should. Few realize that many of the actual FCC employees would like nothing better than to be able to go out and arrest the jammers if they could. However, they know something that most amateurs do not realize - they must be able to prove their case so thoroughly (beyond a reasonable doubt), that the federal prosecutor will be willing to accept the case and seek an indictment.

Evidence problems

One of the requirements to serve a subpoena in most states is that the one serving the subpoena is not a party to the action at issue. There are many good reasons for this requirement. The bottom line might be that the party serving the summons would have no reason to falsify any part of his declaration of service. In the case of prosecuting jammers on the evidence of volunteers who are active radio amateurs, the FCC has felt part of the defense would be that the evidence was biased because the locator was (in essence) a party to the action. Whether this is a fair comparison or not, it certainly has added to the possibility of the guilty being freed.

I believe the reference to the Coast Guard Auxiliary in Gordon West's article on the front page of the May issue of *Worldradio*, was a good answer to that argument of conflict of interest. I work with the Coast Guard Auxiliary in Search and Rescue (SAR). Most of the people I have worked with are very involved with boating. This could mean they have a conflict of interest when they come down on violators of water regulations. On the other side of the coin, their very involvement in boating qualifies them to properly evaluate water violations. Luckily for them, entrapment is not a very plausible defense for most of the areas they are involved in.

After my operation in October of 1975, Janie and I traveled all over the United States, Canada, Australia and New Zealand, speaking on radio direction-finding. Our talks and film shows covered DF (direction-finding) as it related to both Search and Rescue, and jammer location. We talked with thousands of individuals and hundreds of organizations during the four years we donated to those endeavors.

One of the areas that surfaced most often was that of members of radio groups talking to the jammers, in an attempt to keep them on long enough to allow the DFers to locate them. We continually had to explain that they were actually providing the jammers a possible defense, if the matter were brought to trial. Amateurs are known to enjoy talking. If a couple of members were to discuss on the air how they had tantalized the jammer to keep him on, they could ruin most of the work of the FCC

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engineers — even if it was an untrue boast.

In the early days of this HAPPY FLYERS column, we often brought up the subject of not encouraging jammers. In the first place, it is not legal for us to talk to an unidentified foolish operator (UFO). Any attempt to talk with them could be construed as a technical violation (although admittedly, this is an extremely remote possibility). We all know that those who jam are aware of the illegality of their actions, so we are not even justified in saying we were only trying to make them aware they were violating a law. Our greatest argument against talking to them was that most jammers do so to receive pleasure from annoying others and to be recognized. When you speak to them, you fulfill both of their desires. Over and over again in our travels, we found that in areas where repeater groups totally ignored jammers, the jammers went to another repeater group who would provide them more pleasure when they had the time to jam. This is one of the reasons I personally have been opposed to various plans of amateur organizations suggesting we shut down repeaters when jammers are violating FCC regulations on our input. We provide the jammer with the very thing sought — recognition and annoyance to repeater users. We still feel that the originator of an illegal signal is the responsible party, and that he is the only one that should be citeable.

In summary of entrapment, regardless of the outcome of the HR 2203 bill, the amateur fraternity should strongly examine its posture on recognizing jammers. I have listened on HF, VHF and UHF many times during jamming. In almost every case, someone comments on the jammer, sooner or later. This is what they want — PLEASE DON'T GIVE THEM THAT SATISFACTION! If someone is trying to pass traffic to me and is jammed, I attempt to avoid letting the jammer know he/she has succeeded. If unable to hear the party's traffic on the input, I play like I received the traffic anyway, then take steps to find out some other way (if it is important enough). Phone lines are nearly impossible to jam, and even crossing the entire United States by phone is cheap after 5:00 p.m. I am willing to pay 85¢ to ruin a jammer's evening!

Qualifications

There is no doubt that the amateur fraternity contains some of the greatest minds in the world. This is true in more than just the field of electronics. I discovered that the physician who is operating on me soon (Dr. David Cook, WB6FMX) has some very high credentials as a surgeon. Many of the great achievements in many fields have been made by those who were also Amateur Radio operators. Their high IQ and great interest in advancement of conquering unknowns have been contributing factors to becoming Amateur Radio operators.

This is not to infer that every amateur will be qualified to act as a volunteer. Herein is another danger. Willingness is not necessarily the only criterion. If the volunteer makes the offer and is turned down, sour grapes could easily occur. Again, proper training could assist in eliminating both the unqualified and the sour grapes. Remember, locating the jammers is not really the problem. A good share of them are known to the FCC and the leaders of the amateur community. What we really need is solid, down-to-earth evidence that can be used to bring a number of good convictions with strong deterrent sentences by judges. Our qualification procedure (and training syllabus) must include considerable

weight in this area.

Administrator of volunteers

This will be a touchy area to present. Few will deny that a terrible problem exists with jamming. In addition to the amateur bands, CB, law enforcement, business band, marine band, etc. all have their problems. Those of us who have had involvement in DF for a considerable length of time have been called on to locate problems outside the amateur

bands. We also know that, quite often, the jammer is equipped to jam on numerous bands. If we had an adequate force of those capable of discovery, apprehension and conviction of these individuals, we could see a great change very rapidly. The enactment of tow-away zones in San Francisco had a rapid effect on illegal parking. Firstly, they were tagged only part of the time. This had the effect of making the average cost of fine per total times illegally parked less than

the cost of legal parking. It also had the advantage of placing one closer to the actual building they wished to visit. With total, daily towing of ANY violator parked during the tow-away time, it not only became very expensive, but was also a great inconvenience to the violator. Rush-hour traffic flows much smoother as a result of the tow-away ordinance.

If we think of the success of this tow-away program and compare it with the possible benefits to all radio spectrum

The 2ATouch

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ICOM's reliable, field-proven IC-2A/2AT series has become the most successful hand-held on the market. Here are a few reasons why:

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Excellent audio quality: Separate speaker and mic built in. Output power: 1.5 watts high (with BP3), .15 watt (battery-saving) low. Touch Tone Pad (2AT only).

Each IC-2A and IC2AT comes complete with BP3 NiCd pak, AC wall charger, flexible antenna, earphone, wrist strap, and belt clip... all standard, at no extra cost.

The advertisement features a collection of ICOM equipment arranged on a dark, textured surface. In the center are two hand-held radios, one labeled IC-2A and the other IC-2AT. To their left is a BC-25U Wall Charger and an IC-ML1 144 MHz Booster. To their right is a BC-30 Battery Charger, an IC-HM9 Speaker/Mic, and a Leather Case. Below the radios are several battery packs: IC-BP5, IC-BP4, IC-BP3, and IC-PB2. A cigarette lighter, IC-CP1, and a DC Regulator, IC-DS1, are also shown. The ICOM logo is prominently displayed at the bottom center, with the company's address: 2112 116th Avenue NE, Bellevue, WA 98004 and 8331 Towerwood Drive, Suite 307, Dallas, TX 75234. A small disclaimer at the bottom reads: "All stated specifications are approximate and subject to change without notice or obligation. All ICOM radios significantly exceed FCC regulations limiting spurious emissions."

users, we can see that successful implementation could be very valuable. It would appear that a full-time administrator or coordinator would be an essential element. I am not very familiar with the workings of governmental hiring procedures, but I do believe some thought should be given along these lines.

The party in charge should perhaps be a licensed amateur. He should have a working knowledge of law as it relates to evidence, arrest and conviction. An electronic background in the theory and practical application of radio DF at various frequencies should be an absolute requirement. On special cases (especially in the beginning), this person should be able to testify as an expert witness. The party

should have at least a reasonable rapport with fellow amateurs. A background in public speaking and teaching seminars would certainly be another plus. Leadership and organizational skills would be necessary to properly organize a new FCC endeavor of this magnitude. Since political overtones could become an issue to cloud things, present FCC, ARRL officers, etc. might find unnecessary problems. Considerable tact will be necessary to pull together both sides of such a program. It will certainly be worth the effort. **IT CAN WORK!**

There are many amateurs who can fill the position of coordinator of volunteers — I know of many within the Search and Rescue community. Perhaps I am biased

because I am part of the SAR groups. We certainly have proven abilities in DF, control of volunteers, law, etc. Many of them might be willing. I, for one, would gladly serve on a committee to help review the qualifications of possible parties, and I am sure many others would donate some time in this quest.

Stolen radios

Take a look at the picture with this column, showing our new radios in our search plane, Skylane 21DF (identified phonetically to FAA centers during search flights as "One Direction Finder"). The damaged panel has not yet been replaced, but we have had the radios engraved (deeply) with "N21DF."

Remember, they did not steal the DME (about \$4,900) or our HAPPY FLYERS DF — apparently because they were engraved with names. Think about engraving yours to minimize radio thefts!! □

ARRL

(continued from page 19)

munications liaison with other groups.

I have often heard leaders of specific emergency nets and groups say they don't need anyone else to help in communications emergencies. Two examples of this are phone versus CW operations and VHF repeaters versus low band operation of any kind.

The fact that there are difficulties in coordinating between various modes can be illustrated by a problem I ran into some years ago during the annual ARRL Simulated Emergency Test.

During that particular test, I was working as an operator at a local club station serving one of the major disaster organizations, when I happened to be in contact with the headquarters station for the organization in another large city.

The headquarters station was acting as net control and listed a number of messages for the state of Idaho. I broke right in and offered to take them to the CW nets of the National Traffic System, which we were organized to do. The net control came back to my offer with a "No, I'd rather put them into an outlet on phone if possible."

I said "OK" and went on with my own operation.

Later that evening, I was on the local CW National Traffic System (NTS) net and a station came on with a large number of messages for Idaho. I was curious about this traffic, so checked into where it had come from after I took the traffic for relay through the system.

I found that the messages came from the station that had refused to give them to me originally. What had happened was that the headquarters station had given them to another phone net on 75 meters who happened to have an outlet to another net with liaison into NTS.

So they all came through my station anyway, after going through three other stations which did not really need to get into the act.

Well, maybe this gave a lot of stations practice, but in a real emergency situation, what a waste this would have been! The fact of the matter was that the operator at the originating station did not particularly like CW operations and did not even know what liaison lines of communications existed between the various nets on phone and CW.

This again points out the realities of the actual situation on the amateur bands, and shows that we need a lot more coordination between groups than we have at present.

Next month we will further discuss how to achieve better coordination. □

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Potpourri

Once again it's time to open this column to a whole bevy of things. This time, we have a couple of letters of interest and part of the minutes from the recent ARRL Annual Meeting of the Board of Directors. But first — some announcements:

The System will be conducting its highly acclaimed Radio Camp sessions again this year. Session One will be held 29 August through 4 September 1981 at Camp Courage near Maple Lake, Minnesota. Session Two will be conducted from 23-29 January at Camp Joan Meir near Los Angeles, California. Courage HANDI-HAM System students and handicapped members ONLY are allowed to attend these sessions. So ... if you know someone who would like to have some more information about these services, but is not yet a member of the System, drop me a line.

And now to the ARRL minutes:

"60) On motion of Mr. Oubre, seconded by Mr. Grauer, the following resolution was unanimously ADOPTED:

WHEREAS, Amateur Radio has long been recognized as a window on the world for the handicapped and

WHEREAS, handicapped radio amateurs have used their time and talent in the public interest, convenience and necessity in such ways as serving in net control spots for nets and in handling emergency traffic, and

WHEREAS, 1981 is the International Year of the Disabled Person (IYDP), now therefore,

BE IT RESOLVED, that the American Radio Relay League at its annual meeting 11-12 March 1981, does hereby recognize the value of Amateur Radio to the handicapped, and the value of handicapped amateurs to the Amateur Radio Service. It commends the staff for its Blind and Handicapped program and urges continuation and enhancement of this program. It further urges enrollment of ARRL and CRRL in the national programs in the U.S. and Canada supporting the International Year of the Disabled Person."

What a neat tribute to the handicapped amateur — and persons with disabilities all over the world.

This letter from Bob Wheaton contains some interesting info on Amateur Radio license plates and handicapped access stickers — both for his native Texas and the rest of the country:

"Please share with readers of With The HANDI-HAMS the following information, which I believe they will find interesting.

"First, it is common knowledge that Texas will make Amateur Radio call license plates for use on vehicles in which

mobile amateur transmitting equipment is permanently installed. There is some misconception however, regarding the state's definition of the wording 'Permanently installed.' It is not required that the equipment actually be left in the vehicle at all times, in order to qualify for these license plates. However, the connecting cables must be permanent.

"In other words, the antenna connection, irregardless of whether or not the whip is actually in place, must be available for quick activation of the mobile radio unit. Likewise, if the transmitting apparatus is normally powered from the vehicle's charging system, the appropriate DC cables must also be in place. On the other hand, if, as an example, a 2-meter handi-talkie is the qualifying radio unit, and it would normally be powered by its internal batteries, no DC cable installation would be required. If no permanent antenna is mounted, and a magnetic mounted antenna will be used with the handi-talkie, a police officer could raise the logical question of whether or not the radio operator license plate privilege is not being abused, in view of the obvious lack of permanency.

"In such a case, it would be wise to store the magnetic antenna in the vehicle trunk, so that the legitimate use of this special privilege can be upheld, should the need arise. On occasion, amateurs who are also police officers have been known to be a little upset when they stop a vehicle bearing radio operator license plates, and see no evidence of permanent installation. Let's be aware of the Texas requirements, and not abuse the privilege.

"Second, the State of Texas makes available a special Disabled Person Validation Sticker, to be placed on the upper right corner of the rear license plate. The Disabled Sticker bears a wheelchair (International Symbol of Access), a special I.D. number and year of plate expiration. It is used in lieu of the regular expiration sticker, and provides for the following parking privileges: "... any vehicle upon which a Disabled Persons Validation Sticker is displayed, when being operated by or for the transportation

of a permanently disabled person, shall be allowed to park for unlimited periods in any parking space or area designated specifically for the physically handicapped.' The owner of a vehicle on which a Disabled Person Validation Sticker is displayed is exempt from the payment of fees or penalties imposed by a governmental authority for parking at a meter or in a space with a limitation on the length of time for parking, unless the vehicle was not parked at the time by or for the transportation of a permanently disabled person. This exemption does not apply to fees or penalties imposed by a branch of the U.S. Government, and the exemption does not authorize a vehicle to be parked at a place or time that parking is prohibited.

"Non bona-fide use of the sticker is a Class C misdemeanor offense. Fee exemption is not extended to commercially operated parking lot, etc. Full particulars, Form No. D12-316, eligibility requirements, restrictions, etc., are available at the County Tax Assessor-Collector office.

"The purpose of this notice is simply to advise of the availability of Disabled Person stickers, and many restrictions not discussed do apply. In general however, the disability must be severe: loss of, or loss of use of, both legs or of such severity that a wheelchair or mechanical devices must be used for ambulation. Specific authority is defined in Art. 6675a-5e.1, V.C.S.

"In addition, Texas has special Disabled Veteran license plates, free except for a yearly handling fee. Disabled Veteran plates are available to those disabled veterans with service-connected disability of 60 percent or more, who receive compensation from the Federal Government. In and of themselves, Disabled Vet plates do not rate handicapped parking privileges, but may use regular parking spaces with exemption from payment of fees, and must observe time limits.

"Full details on Disabled Vet plates should be available from the County Tax Assessor-Collector; however, application is made directly to: Dept. of Highways and Public Safety, Motor Vehicle Division, 40th and Jackson Ave., Austin, TX 78779. Provisions are made for the attachment of the Disabled Person sticker to Disabled Vet plates upon appropriate application, and this modified Disabled Vet plate then entitles the operator to the combined privileges of both classes.

"I submitted a question to the Motor Vehicle Division regarding the use of the Disabled Person sticker on radio operator

plates, since the Tax Assessor-Collector office informed me this combination is not provided for. In a reply for R.W. Townsley, Director, by Grover M. Howell, Jr., Chief Supervisor, Special Plates Section, I was informed of the following special provision which will interest disabled Texas amateurs: "You may not put a Texas Disabled Sticker on your Amateur Radio license plates, but we will remake your license plates to show Texas Disabled. Application is by Form No. D12-316, with fee of \$1. Since this may be a new procedure they have not used before, if you are a disabled Texas amateur, interested in this modified radio operator plate, and have difficulty making application, I will happily forward a copy of this reply from Townsley/Howell upon receipt of your SASE and 25¢ to defray cost. The copy can be attached to your application as clarification.

"It is not well known, but Texas provides certain handicapped individuals exemption from the 4 percent Motor Vehicle Sales and Use Tax. This is available only to orthopedically handicapped drivers of specially modified vehicles, privately owned, driven at least 80 percent of the time by the handicapped driver. Full particulars are available from the County Tax Assessor-Collector, and application is on Sec. 5 of the Tax Affidavit (Form #2C00-2.09 or New Form #14-100).

"Due to the nature of this information, which effects both handicappers and amateurs, I believe it will be of general interest to your Texas readers, and readers in other states who wish to pursue similar provisions with their state authorities."

And, finally, this letter from "R. A." (he/she wanted to remain absolutely anonymous):

"Dear Bruce,

"A few minutes ago I was writing a letter to the secretary of our chapter of QCWA to ask him to bring a gold sticker for my 58th year of continuous operation as a licensed amateur to the next QCWA meeting. This reminded me that I had had 58 years of pretty fascinating and enjoyable hamming without contributing anything more than at least my fair share of QRM and 60 years of paying my ARRL dues through several depressions, and so forth. It seemed that it might be time to give a bit of a boost to those who were doing so much for those who could use it to become Amateur Radio operators, so you will find enclosed my personal check for \$58 — \$1 for each year of my enjoyment of hamming and a further appreciation for the marvelous job you have been doing. Keep it up!

73 to all
R.A.
Minnesota"

Can you think of a nicer way to commemorate nearly 60 years of hamming? ☐

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TS-530S

The TS-530S SSB/CW transceiver is designed with Kenwood's latest, most advanced circuit technology, providing wide dynamic range, high sensitivity, very sharp selectivity with selectable filters and IF shift, built-in digital display, speech processor, and other features for optimum, yet economical, operation on 160 through 10 meters.

TS-530S FEATURES:

- **160-10 meter coverage, including three new bands**
Transmits and receives (LSB, USB, and CW) on all Amateur frequencies between 1.8 and 29.7 MHz, including the new 10, 18, and 24 MHz bands. Receives WWV on 10 MHz.
- **Built-in digital display**
Large, six-digit, fluorescent-tube display shows actual receive and transmit frequencies on all modes. Backed up by analog subdial.
- **IF shift**
Moves IF passband around received signal and away from interfering signals and sideband splatter.

Matching accessories for fixed-station operation:

- SP-230 external speaker with selectable audio filters
- VFO-240 remote VFO
- AT-230 antenna tuner/ SWR and power meter
- MC-50 desk microphone
- Other accessories not shown:
- VFO-230 remote digital VFO with 20-Hz steps, five memories, digital display
- TL-922A linear amplifier
- SM-220 Station Monitor
- KB-1 deluxe VFO knob
- PC-1 phone patch
- HS-5 and HS-4 headphones
- HC-10 digital world clock
- YK-88C (500 Hz) and YK-88CN (270 Hz) CW filters and YK-88SN (1.8 kHz) SSB narrow filter
- MC-30S and MC-35S noise-canceling hand microphones

- **Narrow/wide filter combinations**
Any one or two of three optional filters . . . YK-88SN (1.8 kHz) SSB, YK-88C (500 Hz) CW, YK-88CN (270 Hz) CW . . . may be installed for selecting (with "N-W" switch) wide and narrow bandwidths on CW and/or SSB.
- **Wide receiver dynamic range**
Greater immunity to strong-signal overload, with MOSFET RF amplifier operating at low level for improved IMD characteristics, junction FETs in balanced mixer with low noise figure, and dual resonator for each band.
- **Built-in speech processor**
Combines an audio compression amplifier with change of ALC time constant for extra audio punch and increased average SSB output power, with suppressed sideband splatter.
- **Two 6146B's in final**
Runs 220 W PEP/180 W DC input on all bands.
- **Advanced single-conversion PLL system**
Improved overall stability and improved transmit and receive spurious characteristics.

- **Adjustable noise-blanker level**
Pulse-type (such as ignition) noise is eliminated by built-in noise blanker, with front-panel threshold level control.
- **RF attenuator**
The 20-dB RF attenuator may be switched in for rejecting IMD from extremely strong signals.
- **Optional VFOs for flexibility**
VFO-240 allows split-frequency operation and other applications, VFO-230 digital VFO operates in 20-Hz steps and includes five memories and a digital display.
- **RIT/XIT**
Front-panel RIT (receiver incremental tuning) shifts only the receiver frequency, for tuning in stations slightly off frequency. XIT (transmitter incremental tuning) shifts only the transmitter frequency, for calling a DX station listening off frequency.

More information on the TS-530S is available from all authorized dealers of Trio-Kenwood Communications, Inc., 1111 West Walnut Street, Compton, California 90220.

KENWOOD
...pacesetter in amateur radio



Specifications and prices are subject to change without notice or obligation.

Dyna-"mite."



Miniaturized, 5 memories, memory/band scan

TR-7730

The TR-7730 is an incredibly compact, reasonably priced, 25-watt, 2-meter FM mobile transceiver with five memories, memory scan, automatic band scan, UP/DOWN manual scan from the microphone, and other convenient operating features.

TR-7730 FEATURES:

- **Smallest ever Kenwood mobile**
Measures only 5-3/4 inches wide, 2 inches high, and 7-3/4 inches deep, and weighs only 3.3 pounds. Mounts even in the smallest subcompact car, and is an ideal combination with the equally compact TR-8400 synthesized 70-cm FM mobile transceiver.
- **25 watts RF output power**
Even though the TR-7730 is so compact, it still produces 25 watts output for reliable mobile communications. HI/LOW power switch selects 25-W or 5-W output.
- **Five memories**
May be operated in simplex mode or repeater mode with the transmit frequency offset ± 600 kHz. The fifth

memory stores both receive and transmit frequency independently, to allow operation on repeaters with nonstandard splits. Memory backup terminal on rear panel.

- **Memory scan**
Automatically locks on busy memory channel and resumes when signal disappears or when SCAN switch is pushed. Scan HOLD or microphone PTT switch cancels scan.
- **Extended frequency coverage**
Covers 143.900-148.995 MHz in switchable 5-kHz or 10-kHz steps, allowing simplex and repeater operation on some MARS and CAP frequencies.
- **Automatic band scan**
Scans entire band in 5-kHz or 10-kHz steps and locks on busy channel. Scan resumes when signal disappears or when SCAN switch is pushed. Scan HOLD or microphone PTT switch cancels scan.
- **UP/DOWN manual scan**
With UP/DOWN microphone provided, manually scans entire band in 5-kHz or 10-kHz steps.
- **Offset switch**
Allows VFO and four of five memory

frequencies to be offset ± 600 kHz for repeater access (or to be operated simplex) during transmit mode.

- **Four-digit LED frequency display**
Indicates receive and transmit frequency during simplex or repeater-offset operation.
- **S/RF bar meter and LED indicators**
Bar meter of multicolor LEDs shows relative receive and transmit signal levels. Other LEDs indicate BUSY, ON AIR, and REPEATER offset.
- **Tone switch**
Activates internal subaudible tone encoder (not Kenwood-supplied).

Optional accessories:

- **MC-46** 16-button autopatch (DTMF) UP/DOWN microphone
- **SP-40** compact mobile speaker
- **KPS-7** fixed-station power supply

More information on the TR-7730 and TR-8400 is available from all authorized dealers of Trio-Kenwood Communications, Inc., 1111 West Walnut Street, Compton, California 90220.

TR-7730 is subject to FCC approval.

Synthesized 70-cm FM mobile rig

TR-8400

- **Synthesized coverage of 440-450 MHz**
Covers upper 10 MHz of 70-cm band in 25-kHz steps, with two VFOs.
- **Offset switch**
For ± 5 MHz transmit offset on both VFOs and four of five memories, as well as simplex operation. Fifth memory allows any other offset by memorizing receive and transmit frequencies independently.
- **HI/LOW RF output power switch**
Selects 10 watts or 1 watt output.
- **DTMF autopatch terminal**
On rear panel, for connecting DTMF

(dual-tone multifrequency) touch pad (for accessing autopatches) or other tone-signaling device.

- **Virtually same size as TR-7730**
Perfect companion for TR-7730 in a compact mobile arrangement.
- **Other features similar to TR-7730**
Five memories, memory scan, automatic band scan (in 25-kHz steps), UP/DOWN manual scan, four-digit LED receive frequency display (also shows transmit frequency in memory 5), S/RF bar meter and LED indicators, tone switch, DTMF autopatch terminal, and same optional accessories.

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DX WORLD

John F. W. Minke III, N6JM

6230 Rio Bonito Drive

Carmichael, CA 95608

Activities calendar

- 09-10 May USSR CQ-M Contest
- 09-10 May World Telecommunications Day Contest (Phone)
- 09-11 May RSGB WAB HF Contest (CW)
- 16-17 May World Telecommunications Day Contest (CW)
- 30-31 May CQ Magazine World-Wide WPX Contest (CW)
- 13-14 June RSGB National Field Day
- 20-21 June JARL All Asia Contest (Phone)
- 20-21 June RSGB WAB LF Contest (Phone)
- 11-12 July IARU Radiosport Championships
- 18-19 July SEANET World-Wide DX Contest (CW)
- 18-19 July RSGB WAB Contest (CW)
- 25-26 July Venezuela DX Contest (CW)

Some of the above dates may be off by a week. Check the contest columns in your favorite Amateur Radio magazines.

W-100-N

Nine applications for the Worldradio Worked-100-Nations were processed during this last period. Certificates were awarded to the following radio amateurs:

- 109. N6AIT William C. Gregory
- 110. AC7P Creath D. "Don" Fletcher
- 111. WB6OBB Dennis Schwendtner
- 112. N4CSF Louis J. Raymond
- 113. KB7ND Kenton C. Gassaway
- 114. AA6BB Gerald D. Branson
- 115. WA2SRM James Grandinetti
- 116. WD6AQJ Lenore "Peg" Austin
- 117. K8IQB Myron L. Braun

Gerry Branson, AA6BB, completes another team to hold this award. His XYL, Joanie, KA6V, holds W-100-N #71.

Peg Austin, WD6AQJ, another YL to apply for this award, now has a new call — KD6QA. I would have made it out for this call, but none of the cards had her new call. And Dennis, WB6OBB, is another member of the Santa Barbara Amateur Radio Club to apply for the award.

Ray, N4CSF, is evidently not a newcomer to Amateur Radio. That call sign is misleading, as he is a member of QCWA. It appears he may have had a "leave of absence" from our hobby.

I have received a query as to the status of Velau, formerly Western Caroline Islands, being added to the Nation List. If the new country of Velau meets the conditions outlined in the nation criteria, it will count. The same applies for the station 1A0KM.

Complete rules and nation criteria are

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This left-handed radio operator is John Neptune, J6LIH, in St. Lucia. With that headset-microphone arrangement, it appears John is a contest operator. (Photo courtesy of W2GBX)

available for an SASE to either Worldradio or my home address.

Guinea-Bissau (J5AG)

The DXpedition to Guinea-Bissau is now history. The team of Jorgen Svensson, SM3CXS; Gunnar Brundin, SM3DVN; Leif Wall, SM3RL; and Erik Sjolund, SM0AGD arrived on schedule and operated around the clock for about 10 days, both SSB and CW, with heavy concentration on 40 meters. The equipment consisted of two ICOM transceivers with amplifiers. As for the antenna setup, no information is available at this time.

To get there, they flew into Gambia where they acquired a car for the 300-kilometer trip into Guinea-Bissau, which was to take about 12 hours. The operators had to shoulder the expenses themselves as they received no financial help from any group. Therefore, any financial enclosures with your QSL cards will be appreciated. All cards to go via SM3CXS.

With the concentrated effort by this group, Guinea-Bissau should be pushed far down the list.

Andaman Islands (VU7)

As of this writing, it is not known if the DXpedition to Andaman Islands was successful. There were doubts as to whether the group would be granted a license or not. They did have an alternate DXpedition to Tunisia.

The group was to include A. Aoki, JA6AGP; Jin Fukuta, JA8BMK; Akihiro Aoki, VU2JPN; and Hiroshi Yamada, VU2WTR, and the call was to have been VU2JPN/VU7. In the event this one came off, send your QSL cards via JA8BMK.

India (VU2)

Well, if you don't get the VU7, maybe you can settle for a VU2. Much activity is on from India. Most of the activity from this country is on the low end of 20-meter SSB around 0200 UTC. Another popular band is 10-meter SSB around 1400 UTC.

If you desire CW contacts look for VU2FBT on 28.003 MHz at 1300 UTC, VU2WTR 21.015 MHz at 1800 UTC, VU2BK 21.037 MHz at 2300 UTC. On 20 meters, VU2RQ 14.025 MHz, 0400; VU2VZ 14.032 MHz, 0100; VU2DX 14.001 MHz, 1200; VU2UR 14.021 MHz, 1200; VU2GX 14.010 MHz, 1200; and VU2KMK 14.028 MHz at 0100 UTC.

With all that activity, everyone should have this one. Don't call CQ; listen

instead.

Reunion Island (FR7)

Looking for Reunion Island? Several stations from that spot are active on the bands. FR7CE has been on 10-meter SSB near 28.505 MHz from 1400 UTC, and has also been found on 21.210 MHz at 1500 UTC. For non-Americans, a list is taken daily by his QSL manager, Rolf Kremmeicke, DF2OU, at 1230 UTC on 21.210 MHz. The list is then run at 1300 and upon completion, FR7CE will switch to 28.400 MHz with a new list taken by DF2OU or Dr. Hans Schneider, DL8RL.

Not all Reunion Island stations work from lists. Try FR0FLO, who is also active in DX contests. Look for him on 10-meter SSB between 1200 and 1500 UTC. He has also been reported on 21.297 MHz at 1100 UTC.

Other Reunion stations include Jean Bouygues, FR7BP, on 14.003 MHz from 1200 UTC; Lucay Dambreville, FR7BT, on 21.035 MHz about 1900 UTC; FR7BX on 14.021 MHz from 1500 UTC; and FR7BY on 28.508 MHz at 1400 UTC.

Mayotte (FH8)

This French possession is located in Africa. Not much has been reported on this one, but there is some activity from there. Rainer Horbert, FH8OM, has been reported at 14.212 MHz at 1400 UTC. He has also been found on 10-meter SSB just outside the American phone band on 28.451 MHz at the same time period.

Beatrice Allot, FH8YL, can be found on 14.175 MHz on Mondays at 1630 and 2000 UTC. There are no reports of her within the American phone bands.

For our CW fans, try FH8CO, who has been found on 14.015 MHz at 1400 UTC. On the same frequency he has been on 1630 to 1800 UTC with a list being taken by Ralf Beyer, DJ3NW.

Balearic Islands (EA6)

This little island group is in the Mediterranean Sea off the coast of southern Spain. Most DX'ers have already worked this one, except — perhaps — the newcomers.

Juan Riudala Mas, EA6GB, has been found on 14.217 MHz at 0300 UTC. Frequently, Juan Luis Gomila, EA6DD, has been showing on the low end of 20-meter CW about 0500 UTC. An interesting fact about the operator, Juan, is that he is 83 years old.

Seventy-five meter fans should be hap-

py to note that Pere Majoral, EA6CE, has been showing near 3797 kHz from 0300 UTC. This should help with your 5BDXCC.

That EF6BDX operation in the last WPX contest was a multi-operator, single-transmitter effort by the team of EA6CE; Jaime Pascual, EA6CP; and Jose Sintes, EA6ET. QSL this one via EA6CE.

Benin (TYA11)

The strange call sign of TYA11 that you may have heard is the real thing. The call belongs to Jim "Bull" Bullington, who is in Benin with the United States Department of State. Bull, when stateside, signs with his home call of N4HX. His QSL manager is Ghislain Penny, ON5NT, with whom he keeps a weekly schedule on 21.245 MHz at 0900 UTC Sundays.

The present setup at TYA11 consists of a dipole, and most likely by the time you read this he will have had a 3-element cubicle-quad raised.

Bull has been reported up in the American phone band on 21.345 MHz at 2200 UTC. As he plans to be in Benin through mid-1982, there appears plenty of time to get a shot at him.

During the early part of May, a DXpedition was to have operated there by Herman Samson, DJ2BW, and Rudolf Lux, DL8DC. The dates given for this operation were 6 May through 13 May.

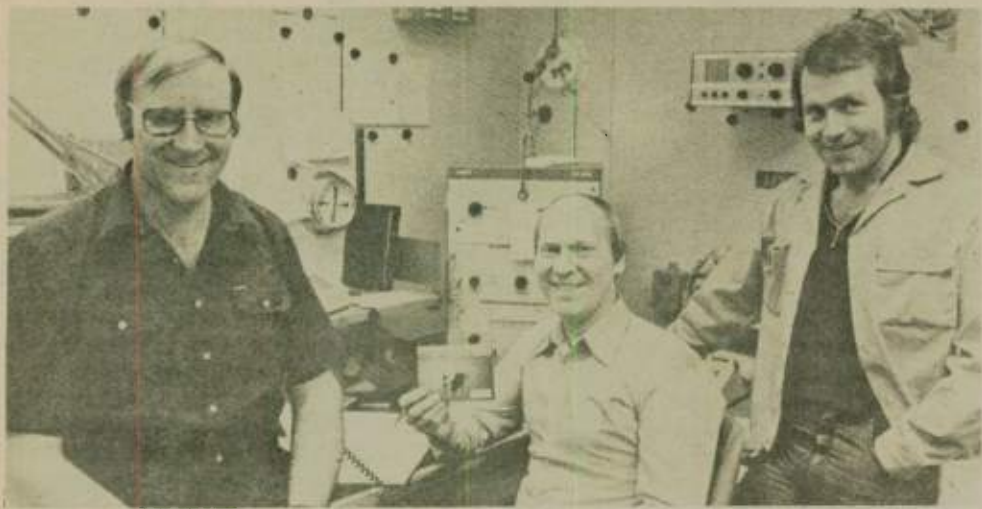
Propagation

Maximum Usable Frequency from Burbank, CA (courtesy of W6LS)

The numbers listed in each column are the Maximum Usable Frequency (in MegaHertz) for contacting five major areas of the world (Nairobi, Tokyo, Melbourne, Frankfurt, Rio de Janeiro) for low fire angle antennas.

You can get a free complete set of these predictions for both high and low angle antennas, Maximum Usable Frequency (MUF) and Frequency of Optimum Transmission (FOT). Requests should be sent to W6LS, 2814 Empire, Burbank, CA 91504. Each request should be accompanied by a self-addressed stamped (35¢) envelope at least 9" x 11½".

JULY 1981						
UTC	AFRI	ASIA	OCEA	EURO	AM	SO
0100	22.6	23.2	32.8	18.8	24.9	
0200	20.0	23.3	32.2	18.0	25.1	
0300	18.7	23.6	32.0	17.3	24.1	
0400	20.9	23.1	30.9	17.1	23.2	
0500	19.4	21.7	29.4	17.5	22.5	
0600	17.9	20.6	28.4	18.2	20.7	
0700	16.1	20.4	25.5	17.3	17.7	
0800	14.3	20.5	22.2	16.1	15.1	
0900	12.9	20.0	19.1	15.0	14.8	
1000	12.5	18.7	16.7	14.3	17.8	
1100	13.0	17.5	15.4	14.3	18.6	
1200	14.1	16.6	14.8	15.1	18.5	
1300	15.6	16.6	14.5	16.6	20.4	
1400	17.1	17.8	14.7	18.6	22.9	
1500	18.2	20.0	15.3	20.1	24.1	
1600	18.5	21.5	15.4	20.8	23.8	
1700	18.7	21.3	14.1	21.0	24.1	
1800	19.1	21.2	12.7	21.5	25.8	
1900	19.7	21.5	13.9	22.0	27.7	
2000	20.0	23.3	18.7	21.9	28.2	
2100	20.3	24.9	25.3	21.4	27.4	
2200	20.8	25.1	30.7	20.7	25.2	
2300	21.5	24.7	33.4	20.0	23.7	
2400	22.1	23.8	33.6	19.5	23.9	



The smiles here belong to Reidar Nyland, LA9DK; Bernt Elde, LA1PJ; and Sigve Tollefsen, Jr., LA2PO. The gentlemen are operators of LA1EKO, a Norwegian Amateur Radio Club Station, at an off-shore oil drilling rig in the North Sea, operated by the Phillips Petroleum Company, Norway. Photo courtesy of QRV.

Maldives (8Q7)

Yoshiki, 8Q7BF, has been active on 10, 15 and 20 meters from the Maldivian Islands, using a TS520D. Yoshiki, whose home call is JN1BJS, schedules his QSL manager, Mikio Kurimoto, JA1ITE, daily except Friday on 14.255 and 21.350 MHz at 0500, 0700 and 1300 UTC. He is reported to work only SSB.

8Q7BG meets with the AfrikaNet on Saturdays at 1700 UTC. Look for the net on 21.294 MHz. Another station from the Maldives is 8Q7AZ who has been worked on 28.576 MHz around 1730 UTC. Look for 8Q7AV on 14.211 MHz from 1200 UTC.

Rodriguez Island (3B9)

This little island in the Indian Ocean supports ample Amateur Radio activity. Look for Moossa, 3B8AE/3B9, who visits the weather station there from Mauritius. He has been reported active on 28.750 MHz from 1400 UTC. Moossa has also been worked on 10-meter long path into California on 28.572 MHz as late as 0650 UTC.

Also active is Seewoosanker Mandary, 3B9CF, who can be found on 14.029 MHz at 0200 UTC, 21.028 MHz from 1900 UTC, and 28.030 MHz at 1330 UTC. CW fans take note.

Cyprus (5B4)

There are no less than seven active stations from the island of Cyprus. The English School Club Station, 5B4ES, has been reported on 28.566 MHz at 1100 UTC along with other 10-meter fans: Nicos Frangeskou, 5B4IT, on 28.529 MHz from 1400 UTC; Michael Spicouris, 5B4JA, on 28.615 MHz at 1400 UTC; Andreas Patsalides, 5B4PA, on 28.620 MHz at 1600 UTC; and 5B4JE on 28.587 MHz at 1600. The last station has also been active on the net that meets on 28.750 MHz at 1400 UTC.

On CW, 5B4JK has been reported on 28.022 MHz at 1800 UTC, and on 21.025 MHz at 1915 UTC. The last station is 5B4KE on 28.348 MHz at 1430 UTC. He will be on SSB, but you had better call him on CW as he is beyond the limits of the American phone band.

Thailand (HS)

A few have been showing from this one. Look for HS1BV on 21.300 MHz from 2100 UTC. On 10 meters you may find HS5AID near 28.035 MHz from 1400 UTC and HS4AMI anywhere in the phone bands from 1300 UTC.

Down on 20 meters, HS4ANK has been reported on 14.207 MHz at 1700 UTC. This station has also been reported on 15 meters on 21.265 MHz at 1600 UTC.

Philippines (DU)

SSB on 10 meters is a popular sport for the Philippines with a large portion of them on around 2300 UTC. Look for DU9RG, DU7RLC, DU1EFZ and DU1NER. You might tune down to the CW portion and catch DU3SMB on 28.032 MHz at 0300 UTC, and Dale Law, N7ET/DU6, on 28.024 MHz at 2200 UTC.

Two other CW types have been reported: DU1JM on 14.046 MHz at 1300 UTC and Alfonso De Lange, DU1DL, on 21.010 MHz at 2300 UTC.

Another active one on the bands is DU6JM, and N6JM would like to catch this one to add to the 'JM' collection of calls worked.

Miscellaneous items

Alex Kasevich, W1CDC, of the Caribe DX Association, is looking for used "Tune in the World with Ham Radio" kits. Your donated kits will be sent to radio clubs in the Caribbean and South America where they will be used to train new radio amateurs. Send your kits to Alex at: 43 Dover Road, Manchester, CT 06040.

Ray Lambert, WA1MTS, reports he will be leaving for Malawi soon. He had hoped to get a license, but was informed that the country was not allowing Amateur Radio operation in that country.

A few issues back, I made mention of Kari Young, VR6KY. I received a note from Ralph Cabanillas, W6IL, who says that Kari married Brian Young, a "Bounty" mutineer descendant. The few times she has been on, it has been from the rig of Tom Christian, VR6TC, talking to Laila McClain, WA4ZEL, or Stig Lindblom, LA7JO. Her rig, a used HW-101 sent to her by WA4ZEL, has been in New Zealand for repairs. She is not really a DX'er as she only wishes to keep in touch with her folks via LA7JO, talk with WA4ZEL, or possibly VK9NL, who is also a Norwegian girl as well as the XYL of Jim Smith, VK9NS (formerly P29JS).

Ralph also reports that Tom, VR6TC, is presently on 40 meters operating SSB on 7.060 MHz around 0600 UTC and soon to be up on 7.235 MHz. If you need a

schedule with him, ask on one of his regular schedules on 21.350 MHz after he is through around 0100 UTC Wednesdays.

Asiatic USSR

A new net, organized to present all the Asiatic USSR prefixes to the DX'ers in this part of the world, is conducted by UA4CDC and others. The group meets Wednesdays and Fridays on 28.780 MHz at 1300 UTC and 14.250 MHz at 1400 UTC. This should give you a chance to pick up those needed oblasts.

1979 USSR contest results

The results for the Annual CQ-M, the USSR contest, are available for 1979. The Soviets seem to run about two years behind schedule. I only have the results for the participants from the United States and will list only the higher scores.

All Band			
K3EST	840	83	207,915
W5VX	363	65	69,225
K5RC	303	66	57,948
K9RU	329	59	57,525
WB8EUN	319	56	53,368
WD9DCL	314	53	49,237
N6ZZ	246	67	48,374
K2SX	222	59	38,527
K5KLA	265	46	36,294
N4WW	225	53	34,821
21 MHz			
N4KG	235	38	25,992
14 MHz			
WA2VYA	294	38	33,364

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The first figure is the number of contacts, followed by the multiplier. The final score is that of the third column. This contest is usually held each year in early May.

W1AW DX Bulletin schedule

The ARRL headquarters station in Newington transmits up-to-date DX information on Fridays. All times are UTC.

SSB:	0130,	0430		
CW:	0000,	0300,	1400,	2100
RTTY/ASCII:	0100,	1500,	2200	

Look for W1AW on SSB on 1835, 3990, 7290, 14,290, 21,390 and 28,590. For CW types check 1835, 3580, 7080, 14,080, 21,080 and 28,080. RTTY and ASCII transmissions will be found on 3625,

7095, 14,095, 21,095 and 28,095. All frequencies are in kiloHertz. CW transmissions are sent at 18 wpm. RTTY is sent at 60 wpm with a 170 Hertz shift, and ASCII is 110 Baud with a 170 Hertz shift.

The above information is brought to you through the courtesy of the Southern New England DX Association.

160 meters

With the summer months approaching, reports for activity will probably go down. But for the die-hards, look for the following:

VK7BC	1820	1200
EZ6DEX	1861	0120
RG6GBX	1863	0035
EF6BDX	1832	0015

G3PQA/5N0 1800 0050
Frequency and times, of course, are kiloHertz and Universal Time.

YL operators

Looking for YL DX'ers? HL9KW has been reported on 28.527 MHz at 1030 UTC. Other YL operators include RL7AAL on 28.570 MHz at 1150 UTC, TI3AMY on 7.075 MHz at 0715 UTC, and TU2JM on 28.471 MHz at 1630 UTC.

RTTY

If interested in RTTY DX, try listening for these items:

EA3CN	21.092	1800
CT1EM	21.088	1800
F6BZC	21.094	1800

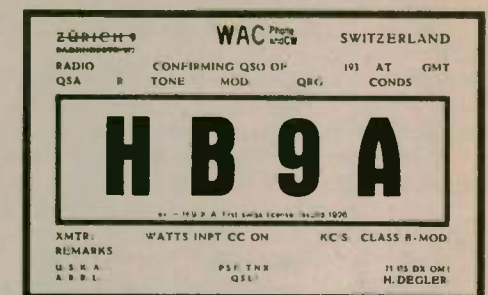
JA1JDD	14.098	1300
VK2EL	14.093	1100
LX2LH	21.094	1800
LX2MG	21.094	1800
VK8HA	21.090	1400
Y39XO	21.095	1400
4X4MR	21.088	0100
SP3CMX	28.091	1800
CN8AT	28.095	1900
DU1MEL	14.091	1300
YB2BLI	14.085	1300
OZ1CRL	14.095	0100
5T5JD	21.090	1900
UV3FD	14.095	0600
UK5NAR	14.091	0600
EA9FJ	21.093	1800
9H1FG	21.095	1800

Again above information is in MegaHertz and Universal Time.

Antique QSL Department

These two old-time QSL cards were submitted by Marion Henson, W6NKR, for contacts he had made back in 1949. The first is for a contact made with an amateur station in Shanghai. The station — C1MK — was operated by an M.K. Sun. The 'C' prefix is no longer assigned to China, and no doubt, neither does the C.A.R.L. now exist.

The gear was typical of many postwar rigs. His rig has consisted of a pair of 1625's, which were old military-type tubes — the same as 807's, except that the filament voltage was 12.6 volts. And how many of you old-timers remember the BC-342 receiver?



No, this next one is not Rangoon Slim. It is for real. Doesn't it make you drool? When was the last time you had a contact with Burma? Frank King, G2FK, operated XZ2FK in Burma for that 20-meter CW contact almost 32 years ago. G2FK is not listed in the present Callbook; perhaps he is no longer an amateur or is a Silent Key.



QSL information
One of the most frustrating aspects of DX'ing is waiting for that QSL card confirming the contact. You send out your card with the necessary IRC or "green



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stamps" direct to the DX station and sit and wait. And wait! After time goes by you become discouraged and wonder why the station does not answer your QSL, especially when you have provided the addressed envelope and funds.

Jim Simmons, W7KVV, Public Relations Officer for the Grande Ronde Radio Amateurs of eastern Oregon, puts some light on the subject. Jim states:

"For the information of the uninitiated, missing QSL's and/or snipped envelopes are not generally the fault of foreign amateurs or censorship by foreign governments, but is likely the work of mail thieves. The practice occurs mainly in less-developed countries whose per capita earning is but a fraction of ours and is a system for supplementing the incomes of the individuals involved. In some instances, the DXer's envelope and contents are stolen entirely and his QSL discarded before reaching the foreign addressee; in others his QSL and SAE are delivered but only after the enclosed green stamp(s) or IRC's are removed by the thief.

"The latter process is a simple one: the thief has but to carefully cut or tear off a corner of the DXer's envelope, and after observing its contents, remove them by employing a slotted device such as a bobby pin. The green stamp(s) or IRC's are wound into a small cylinder and deftly removed.

"Regrettably, many of the countries on DXers' "Most Wanted" lists are also those in which postal theft is rampant. I can offer no real solution for the dilemma; however, one possible improvement might be for many more foreign stations to contract with QSL managers in "safe" countries. Equitable compensation for both the foreign operator and his manager would be required.

"How ironic that operators who avidly send green stamps or IRC's plus foreign airmail postage to DX stations feel little obligation to expend the funds to receive an identical card from a stateside manager. For only the investment of his QSL and SASE, the stateside operator is asking for a DX confirmation from a foreign station who may need his card about as much as he needs a wart on his nose.

"In closing, may I suggest we rethink our DX QSL'ing procedures and values on an international basis and stop supporting postal thieves. I believe we can greatly improve QSL sent/received ratios by considering cards sent to stateside managers as requiring the same compensation as if they were sent direct. Such action would surely encourage more DX stations to seek "safe" managers, thus reversing the current trend, which

too often rewards thieves while penalizing foreign operators and their managers.

QSL routes

35ADZ	-DK9KD	VK9CCT/	
C31VM	-EA3BKZ	VK9Y	-WA9WWT
D68GA	-ZL1BIL	VP2E	-K8ND
DF9YY	-DK3RG	VP2ED	-AD8J
DJ5RT/6W8	-DK9KD	VP2ESE	-WB4QBB
DL7NS/HB0	-DL7NS	VP2EV	-K8ND
ED2DSB	-EA2OS	VP2EX	-WB8VPA
EF6BDX	-EA6CE	VP2EZ	-AA4GA
EL6A	-K4SE	VP2MGT	-VP2MO
EL7H	-DK3IA	VP2M	-W1CDC
FG0AYO/FS	-W2KN	VP2MM	-W1CDC
FM7CD	-F5VU	VP2MN	-W1CDC
FM0GDE	-F6AUJ	VP2MO	-KA4BOT
FR7CE	-DF2OU	VP2VHD	-W3FPO
HB9EU/S8	-HB9EU	VP5JDT	-W1HCS
G3MUV/CE0	-WD4HMG	VP5RAC	-WB5UEP
GB2SDD	-GW3EOP	VP5TCI	-G3ZYD
HC1BP	-N4BPO	VQ9KT	-K6TQ
H11RCD	-H18MRP	VU2IF	-N7AGC
HL1DH	-JH2CJW	VU2UDO	-DJ3YX
HM1AQ	-JA2AU1	W4GSM/CE0	-W4PRO
HP6OL	-VE3AMJ	WA1SQB/CE0	-K1RH
J3AO	-W4YHB	WD9EOE/	
J5AG	-SM3CXS	HR2	-WD9GBH
J6LIH	-W2GBX	WD9IPW/HK3	
	(See Note 1)		-WA6PDY
J48AQN/JD1	-JA8JL	XT2AU	(See Note 2)
JY3ZH	-DJ9ZB	XT2AW	-KN1DPS
JY9RC	-W1CKA	YB1AEE	-VE7DZR
K4FW/VP2K	-K4FW	ZD8RA	-N2FU
K8CW/KH6	-K8CW	ZF2AD	-N3ED
K8ZH/6Y5	-W8TPS	ZF2EA	-K4LTA
K9LA/VP2A	-K9LA	ZF2EB	-KR4C
K9QXY/SV5	-K9QXY	ZF2EC	-WA4OBH
K0DHI/CE0	-K0DHI	ZF2EF	-WA4DEP
KG4KK	-N6AWD	ZF2EQ	-WA3DAG
KG6SL/KH0	-WA6AHF	ZF2EX	-K4PJ
KH3AB	-KB7MO	ZK1CT	-W0RLX
KH6S/KH3	-KH6D	ZL1BIQ/K	-ZL2HE
KL7IB	-WB3ERY	ZL2BCP/A	-ZL2HE
KL7JEF	-WD8KKF	ZI3AFH/A	-ZL2HE
KN1FPQ/C6	-DJ9ZB	ZL3AFH/C	-ZL2HE
KP2A	-WB2MSH	ZL3AFH/K	-ZL2HE
LG5LZ	-LA2ZN	ZL5MC	-ZL2HE
NP2AI	-NP2AF	ZLADG	-W7PQE
OE6BVG/KS6	-DJ0FX	4N7TC	-YU7AJU
OH0XX/OJ0	-OH2BBM	4N0RA	-YU1ELM
OH0XZ/OJ0	-OH2K1	4S7DX	-WB2MSH
P29KK	-JG3FC1	5T5DX	-W2TK
PA3ADJ/LX	-PA0KHS	5W1DE	-DJ0FX
PA3AIR/LX	-PA0KHS	6W8/DJ6S1	-DK9KD
PA0INE/LX	-PA0KHS	6W8HL	-KB4GQ
PJ8UQ	-W3HNK	722AP	-I8YCP
PJ8ZBJ	-SM4CJM	8P6CQ	-W2LZX
SJ9WL	-SM0BMG	8P6JW	-W3HNK
SV0AO	-KA2FRP	8P6OL	-VE3AMJ
SV0AU	-WA3W1Y	8P6PF	-VE3LVK
SV2JL/5	-SV2MT	8P7A	-WB4RRK
TG4NX	-WD8MOV	8Q7BF	-JA1ITE
TL8RC	-F6EZV	9G11Z	-DB8CF
TU2HH	-WA4VDE	9J2BO	-W60RD
TU2HW	-WA8RTF	9K2FF	-SV1JG
TU2J	-KN0KCW	9X5FO	-DL5FX
TU4BD	-F6CXV	9Y4JA	-AC3A
TYA11	-ON5NT		

CE0CJA	-P.O. Box 2545, Concepcion, Chile
S38T	-Len De Klerk, P.O. Box 750, Umtata, Republic of Transkei
TR8FSC	-Michelline, P.O. Box 177, Libreville, Gabon
VK0JS/9	-P.O. Box 103, Norfolk Island
WD4FAC/	
HC1	-P.O. Box 36, Santa Domingo, Ecuador
Y11BGD	-Kamal Abdul Hadi, Al-Kadimi Yah, Al-Ayimah Bridge House No. 2614, Baghdad, Iraq (See Note 3)
9H3AM	-BRS 32525, 79 Granby Road, London SE9 1EH, England (See Note 4)

Notes:

1. The address for J. Bruce Siff, W2GBX, QSL manager for J6LIH, is 1782 S.W. Cloverleaf Street, Port S. Lucie, FL 33452.
2. Operations by Karl go to W2TK; operations by Enno go to WA1ZEZ.
3. Omit all references to Amateur Radio in the address cards to Y11BGD.
4. That BRS 32525 is that of a British SWL.

My thanks to the following com-

tributors: W1CDC, WA1MTS, K1RH, NP2AF, W2GBX, K2TV, W6GO, W6IL, W6NKR, W7KVV, KB7SB, Southern New England DX Association, Central Radio Club (USSR), QRV, The DXer

Canadian amateur offers challenge

Paul D. Cooper, VE3JLP

I'm not really a competitive fellow — at least I thought I wasn't until I got my ticket three years ago, when things suddenly changed. Mostly, it was DXing — the kick of working that elusive station on the other side of the world, the feeling of satisfaction as I filled in the log and chalked up another country on my modest but growing DXCC list.

During the first few months, I used to tell the family of my successes . . . extraordinary how quickly they lost interest in the whole business:

"Hey, Mary, I've just worked a station in the Falkland Islands!"

"Well, that's nice, dear; did you know that Mrs. Cameron's cow got into my garden again last night?"

Mrs. Cameron's cow?! Talk about going from the sublime to the ridiculous.

Then I joined the OARC (Ottawa Amateur Radio Club). At last, I thought, I can find an interested audience to tell about my DXploits. And so I did, but it did not turn out quite the way I had expected:

"Evening, Joe. Did you hear that 5W1 on 20 last night? I finally broke the pile-up that night for two hours. That's another country for me; I've worked 112 now!"

"Oh yes, I heard him. Of course I worked 5W1 three years ago from my old QTH when I only had a vertical and 50 watts. Last night, I gave him one call and he came straight back, no problem. I worked him on 10 and 15, both CW and phone . . . DXCC? Oh well, I'm up to 280 confirmed now. Keep up the good work, Paul, you'll get there eventually."

Talk about having the wind taken out of your sails! The deflated feeling usually lasted right through to the coffee session.

Six months ago, I finally bought a 2-meter mobile rig and joined the various groups chatting back and forth through the traffic jams on their way to work. I soon found a group that liked to talk DX. They are a pleasant bunch, and we've had some fine round tables on every aspect of DX, but I'm still having my problems!

"Morning, Steve, did you hear that VK9N last night? Nobody else seemed to hear him. He gave me a 579. I've never heard one of them on the band before. I suppose they're fairly rare?"

"Hmmm . . . VK9N, eh? Was his suffix November Alpha or November Foxtrot?"

What on earth does it matter, I think as I desperately try to dredge out the

(Northern California DX Club), *The DXers Newsletter*, *The Long Island DX Bulletin*, *DX News Sheet*, and *The DX Bulletin*. All contributions are appreciated. 73, es DX! de John, N6JM. □

balance of the call sign from the recesses of my mind.

"I think it was November Foxtrot, Steve."

"Oh, well, that's Charlie Jones. He used to operate from 9M1 and HK0. He's a Canadian, you know. I used to have a regular sked with him every Sunday night. Last week I worked him on 40 and 80 CW too."

What can you say in reply to that as you sit behind the wheel feeling completely crushed — AGAIN!!

After all these discouraging experiences, I was beginning to feel that my competitive streak had been permanently dented. It seemed clear to me that there was no aspect of Amateur Radio in which I could really excel; there would always be someone to top my story, to "one-up" my modest successes.

Then one evening, as I sat brooding in the shack listening to the background noise that was the only response to my second CQ that hour, it came to me in a flash — there was one side of Amateur Radio where I was almost sure I had a winner! After I'd thought it through, I decided I should issue a challenge which can be picked up by not only the DXers, but also the rag-chewers, traffic men, VHFers and anyone who is on the air!

Have I whetted your appetite? Well here is the challenge: I believe I have the smallest shack in our part of the country! Now when I say small, I mean really small. Our house is small to begin with, and we have five children. When I first got my ticket, I had a long and not always harmonious discussion with the XYL on where we should put the shack. Eventually, we agreed that I should use a corner of the clothes closet. I actually have the back quarter, which measures 2' 6" wide by 3' 6" deep from the back of my chair to the wall behind the rig. The height under a sloping roof varies from 5' 4" to 6' 10".

Visitors to the shack are actually sitting out on the adjacent portion of the closet — there is only room for the operator in the shack itself! If I lean back to stretch, I find that I'm knocking towels off the shelf behind me, while the poor visitor's shoulders are half buried in a row of summer dresses which hang over his chair.

Well, there it is. Get those tape measures out and see if you can match my cramped quarters. I may even offer a small prize in the unlikely event that anyone manages to beat my record! To ensure fair play, I'll ask our club president to act as an adjudicator. In case of dispute, his decision will be final . . . so let's hear from you! 73, Paul, VE3JLP — *The Groundwave*, Ottawa ARC, Ontario, Canada □



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**AMSAT
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Dr. Norman L. Chalfin

The shuttle

We stood at the edge of the Rogers Dry Lake on Edwards Air Force Base — Peter Carr, N4ASC, and I and the thousands of other onlookers — to watch a white blob in the distant sky rapidly materialize into the returning *USS Columbia*. It was a perfect three-point "dead stick" landing, sending behind it a 1,000-foot sand spray as it sped down the runway to stop about a mile away from us. I was disappointed that the sonic boom was only a "pop-pop" when it occurred.

ZS1BI reported a telescope viewing of the shuttle as it flew over Africa on its first pass. It was magnitude 1 — about the intensity of the brightest star in the sky. Harry Eggebrecht, W4BE, also reported sighting the shuttle.

A number of other amateurs reported monitoring the transmissions from the *Columbia* on 296 MHz.

The success of the *Columbia's* mission adds greatly to future launch possibilities for OSCAR spacecraft. AMSAT has, in the past, indicated an interest in the space shuttle as a vehicle on which amateur communication and experimental satellites could be launched. Now that such space "trucks" are apparently a success, it probably will not be long before there is an opening for an AMSAT/OSCAR in the cargo bay of the shuttle to be sent into a starting position for orbiting.

Readers of this column may recall our suggesting that as part of the training missions of new pilots and astronauts on the shuttle, they be guided to points where they may retrieve some of the very early Amateur Radio satellites remaining in orbit, if those satellites can still be found. OSCARs 1 and 2 were known to have spiraled into the Earth's atmosphere and burned up. The fate of OSCARs 3, 4, 5 and 6 is to continue to orbit the Earth unless they can be retrieved in some future missions. At present, it is believed the planned shuttle orbits are too low for the retrieval of the OSCARs up there, but among future plans for the shuttle, a secondary maneuverable unit has been discussed which will be able to go out after objects in higher orbit and bring them back to the space shuttle. Fingers crossed, everyone?

A historical note on the shuttle was found in the TRW (then called STL) "Space Log" for September 1961. The article discusses SLOMAR (Space Logistics Maintenance and Rescue) Project, designed to cover a broad spectrum of space-age support requirements. The system illustrated a ship which closely

resembles the shuttle. It was planned to handle freight, passenger, maintenance and rescue service for orbiting satellites and space stations. It was also to be used for the transfer of military and scientific missions between satellites or space stations and the moon. At the time, the feasibility of nuclear power for upper stage booster propulsion and auxiliary power was under discussion. Douglas, GD (General Dynamics), GE (General Electric), Lockheed, Martin, and Northrup were involved in study contracts for the project.

This should give some insight into the long lead time between a concept and its final fruition where space projects are concerned.



The *Columbia* can be seen sitting on the runway (background) at the Rogers Dry Lake on Edwards Air Force Base. The photo was taken from the trailer in which K6OX operated its commemorative activity during the April shuttle landing. (K6PGX photo)

Shuttle commemoratives

Among the most participated-in activities of amateurs during the mission of the *Columbia* were the commemorative operations at Marshall, Goddard, Kennedy, Houston, and Dryden Spacecraft centers with which amateurs from all over the world made contacts. I was at the Antelope Valley Amateur Radio Club site at Edwards Air Force Base after the landing and had a look at their set-up. They operated under the club call K6OX and made approximately 3,300 contacts covering all continents, all states and all provinces in Canada. The contacts were made on SSB between 10 and 75 meters and on 2-meter FM.

K6OX started operations Friday morning at 1:00 a.m. PST and continued through 9:55 a.m. Tuesday, about 20 minutes before the landing of the *Columbia*, by arrangement with the Air Force Base Communications Operations so as not to interfere with communications with the *Columbia*.

The equipment used at Edwards was set up in two trailers — one for operating the other for meals and sleeping. A three element beam was mounted 85 feet above one of the trailers with a Ringo for 2 meters atop it. There were individual Vee's for 40 and 75 meters. A novel feature of this operation is that logging was accomplished on an Apple II computer.

The group expressed its appreciation for the cooperation of the Air Force and NASA in providing the facilities and space for this event.

If any of you made contacts with K6OX during the mission of the *Columbia*, please QSL to K6OX, P.O. Box 557, Littleton, CA 93543. Contacts made from outside the United States should be reported by QSL through the Bureau to K6OX.

Operators at K6OX for the shuttle commemorative were: Keith Wilkason, W6CRE; Dale Bell, WD6GYS, and his XYL; Ralph Maag, K6IUP, and his XYL; Keith Hoyt, K6GXO; Daniel Warren, WD6BQI; Gary Barr, WA6TWT; Gary Mork, WA6WFC; WA6GWN; John Young, K6CEV, and his XYL; Dave Fraasch, WB6RAB; Darrell Lowery, WA6TTS; and Virgil Babb, Jr., WD6BQH.

Field Day

The OSCAR schedules for Field Day have been announced by AMSAT. They are as follows:

Saturday, 27 June (Zulu) OSCAR 8 will be on Mode J
Sunday, 28 June (Zulu) OSCAR 8 will be on Mode A

ARRL position open

Kate Saul, AE2Z, has been transferred to another activity at ARRL headquarters. This leaves an opening at ARRL for an OSCAR educational manager. The position is salaried and full-time. For further information, contact Steve Place at ARRL headquarters.

Area coordinators

New AMSAT/OSCAR Area Coordinators are: Gordon Reid, VE6AK (Canada); Charles Martin, AB4Y (Kentucky); James Buckley, WA1ZUB (Central Massachusetts); and Arthur Zavarella, W1KK (Western Massachusetts).

Orbit Magazine

By the time you read this the next issue of Orbit magazine will be on the presses. Under discussion at the present time is the publishing of classified ads for radio amateurs.

The aurora

During the weekend of 10 April, there

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was a strong aurora visible all over the United States. It was so strong that some fire departments went looking for the fire they thought was causing the red glow in the sky. Amateurs reported many effects on transmissions during the aurora. Jim McKim, W0CY, in the Midwest reported contacts of several thousand miles on 2 meters to the east and north.

LO 3

The next launch of the Arianne rocket series will be LO 3 in June. The ESA believes it has solved all its problems with the injection nozzles experienced with LO 2.

Phase IIIB

Phase IIIB Amateur Communications Satellite will have two transponders. The second one will be an L-band unit with an uplink on 1269 MHz and a downlink on 436 MHz. To access the spacecraft on 1269, a 3 1/4-foot dish (L Meter) fed with 30 watts will give adequate input to the satellite, which requires 1-2kW EIRP.

AMSAT has advised that the dues for the life memberships will be increasing shortly. If you are not yet a life member, it would be to your advantage to take advantage of the current life membership rate which is \$200.

Annual memberships to AMSAT are \$16. Between 1 April and 30 June, a 3/4-year membership can be had at \$12. The rate from 1 July to 30 September is \$24, which gives you an 18-month membership through the following year. After 30 September, a 15-month member-



The shuttle can be used to eject a spacecraft, as in this artist's conception from Rockwell. AMSAT has been considering this mode of launching an amateur communications satellite.

ship is available at \$20.

Membership in AMSAT gives you a subscription to Orbit magazine, which is now a bi-monthly publication but will soon be a monthly, and all of the privileges of being a part of the amateur satellite communications program.

AMSAT's only source of income is the membership fees of its members and their contributions. Soon there may be a variety of sales campaigns to raise funds. These will include T-shirts and caps, identity badges, and a variety of tie-tacks and

similar jewelry. Announcements will appear in Orbit, as these items become available.

Club memberships are available at \$20 annually.

More on OSCAR 2

On 2 June 1962, the OSCAR 2 was launched from Vandenberg Air Force Base, Lompoc, California into an orbit inclined to the Equator 74.3°, a perigee of 129 miles, an apogee of 240 miles and a period of 90.5 minutes. It transmitted "HI", as did OSCAR 1 for 18 days. The 6" x 10" x 12" wedge-shaped package transmitted its signal 25 times per minute initially.

Western Europe, Australia, Christmas

Island and U.S. amateurs reported receiving OSCAR's signals in the first two days of operation. It decayed into the atmosphere on 21 June 1962.

ARRL and Project OSCAR were the major participants with the latter responsible for the integration at the Western Test Range.

The transmitting frequency was 144.992 MHz.

Columbia QSLs add up

Shirley C. Wolter, WB6QFU

On this day in history — the landing of the shuttle Columbia at Edwards Air Force Base — the Amateur Radio community should take pride in knowing that in some small and perhaps remote way, our "advancement of the art of radio" has contributed to the advancement and support of the Space Program in the United States.

In fulfillment of FCC Rules and Regulations Part 97.1, the Antelope Valley Amateur Radio Club K6OX has undertaken the enormous task of providing commemorative QSL cards to those making contacts on a multitude of repeaters throughout the Southern and Central

California area on 2 meters.

At 6:45 a.m., 14 April 1981 — just a few hours before touchdown of the Columbia — 3,100 contacts had already been logged. Even though it was requested that each request for a QSL card include a SASE, the expense of the cards could exceed the club's expectations.

It seems appropriate to suggest that various Amateur Radio clubs and individuals send a small donation to help the club with this ambitious project. Since financial problems seem to go hand-in-hand with most Amateur Radio clubs, Antelope Valley ARC would certainly warrant our support. □

Team work and a little luck

Rod Whitney, WD6FGX

On 1 March 1981, at about 1:00 p.m., Roderick Whitney, WD6FGX; M. Earlane Polen, WB6UVG; Marlis Alexander, KA6IEB, and several other amateurs on the local repeater (WA6WTT/R 145.13) heard someone who was obviously not licensed. Rod and his wife Marlis talked it over, then called Earlane on simplex to plan what to do. The unlicensed operator was then lured into conversation by the trio and his input signal was monitored.

Rod and Marlis then headed to a nearby town, which seemed to be where the signal was coming from. Upon arriving at the town, they made contact with Tom Garber, KA6MQH, who confirmed that the signal was coming from that general area. They went to the home of another amateur to check with him. This amateur (who prefers not to be identified) had just

discovered that what he had thought was just a prowler the night before had been a burglar, since he found his handi-talkie missing.

Rod told him what had been going on and the call sign being used by the non-amateur. The Amateur Radio operator who had been burglarized stated that the amateur to whom that call belonged had visited him the day before, and although he was obviously not the suspect, he did have his grandson with him at the time.

A trip was made to the non-amateur's home, where Rod attempted to bluff the suspect by telling him he recognized the suspect's voice from the conversations heard earlier on the air.

The bluff worked; the suspect confessed.

Less than four hours after the trouble had begun, less than one hour after the theft was discovered, and before the sheriff's department had finished taking a burglary report, the case had been solved — with the aid of a lot of good luck.



AMSAT

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You owe it to yourself to be informed about this new band. The new band almost happened last May, but the launch vehicle malfunctioned and the Phase IIIA satellite did not achieve orbit. Our replacement Phase IIIB satellite is a million dollar undertaking. We are going full steam ahead secure in the knowledge that we can do our part to make the new band happen following the successful launch of Phase IIIB. Why don't you join the AMSAT Team and receive regular news as to the status of the Phase IIIB Program.

73,
The AMSAT Team

P.S. We still have two working communications satellites in orbit, AMSAT-OSCAR's 7 and 8, and are building a satellite for Science, UoSAT, due for launch in the Fall of 1981. It will contain scientific experiments as well as a slow-scan television (SSTV) camera. This satellite will be ideal for use in classrooms all over the world for live demonstrations of various aspects of space research.

Yes, I want to be a member of the AMSAT Team and receive ORBIT Magazine. Enclosed are my dues of \$16 (\$20 overseas) for 1981 (\$200 for Life Membership).

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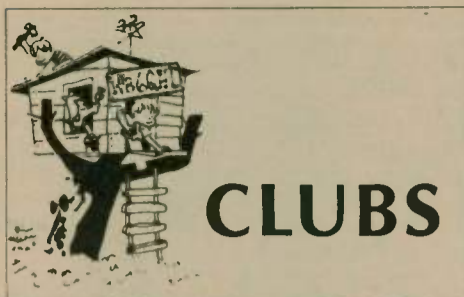
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Big exposure — little cost

Shirley C. Wolter, WB6QFU

Every Amateur Radio club recognizes the importance of projecting their image to the general public while providing assistance in communications at such events as bike-a-thons, marathons, parades, and crowd control at fairs or conventions. When we do provide communications during a local emergency, we need identifying clothing or something that is easily recognizable.

In recent years, the cost of jackets, hats, badges and patches has made it a financial burden for clubs or individuals to purchase. A lot of clubs just barely make it through the year, and a large number of members who have the time and are willing to volunteer for events are retired people, confined to an ever-shrinking fixed income.

It has been our experience that the public is really curious about "the people walking around with those walkie-talkies", and the busiest part of a parade is no time to explain. Those in charge of the event, whether it is a disastrous fire or the annual kids day sack race, are never sure who is the communicator involved. Obviously, the press often overlooks the Amateur Radio operators in their coverage and no credit is given to those who, in reality, often hold an event together merely by communications. Amateur Radio needs that exposure and public respect that seems to be given more readily to CB'ers. Don't misunderstand me — CB'ers are good at their volunteer communications, too, but they impress me as being go-getters. They have more financial support (mostly because they are not restricted by FCC rules in that respect), and citizens band radio has become very popular through movie and TV exposure. The CB'ers may

even like my suggestion which follows.

Solution/suggestion: Club members and YL's could easily make rectangular chest tabards — the type associated with track events or many events where large numbers identify the contestant. The tabard covers the front of the chest and the back, slips on easily over the head and ties at the side. The construction can be simple or as elaborate as desired; the material should be bright, can be of any weight, night-glow fabric or plastic. If the treasury permits, logos, decals, call signs or club names can be embroidered, cut out of felt or imprinted at a local T-shirt shop. But even without any ID, the person would be quite noticeable.

Advantages: A minimum of expenditure to create the objective of letting others know Amateur Radio is active in public service. The officials would quickly be able to spot members of the group who are communicating via handhelds, with the press obviously noticing those "people in the red chest vests" as being involved. The tabards are light-weight and can be worn over regular clothing, which would not interfere with keeping cool in the summer or keeping warm in the winter — the latter is a major problem in selecting jackets when a group can afford them. Sizing would be no problem; the rectangular size fits all, adjustable with ties. If the club owns the tabards, they could be turned in at the close of an event and stored in a box, ready for distribution at the next affair. If one or two are not returned for any reason, the loss in value would not be as great as if the garment had been a jacket. If individuals buy a hat or patch and move away, the item is useless in another town, other than just a piece of clothing.

These tabards are simple to make, but if you would like a copy of instructions and suggestions for variations, please send a SASE and \$1 to me to cover the cost of reproduction: Shirley C. Wolter, WB6QFU, P.O. Box 506, Phelan, CA 92371. □

Attention clubs

Clubs receiving labels of newly licensed amateurs from us monthly, don't panic. The source from which we obtain the labels informs us there has been some kind of computer difficulty at the FCC (hard to believe, isn't it?) and they have received no information from the FCC for some time. We will ship your labels to you as soon as we get them. □

Nostalgia with WPEN's 950 Club

Jane Johnson, K3RIH

Joe Grady, W3FVW, and his sidekick, Ed Hurst, are the popular hosts of the Philadelphia WPEN radio show — The 950 Club. The smash radio show was a king-maker back in the '40s and '50s. It was recently revived.

The reception was remarkable. Old fans flooded the station with calls and performers all over the United States heard about it and called in to welcome the amiable pair back into broadcasting.

Philadelphian Dick Clark called the first day. Pat Boone called from Washington where he was attending a reception for the new president. Perry Como, Al Martino, Theresa Brewer and Eddie Fisher heard about it and checked in.

Joe and Ed are kings of patter and play the music their fans enjoyed when they dashed home from school to dance in their living rooms or at the corner shop. It's sing along with "I'll Never Smile Again," "Deep Purple," "Maria," Doris Day, the Ink Spots and Frankie Laine.

The show was scheduled for a two-week revival but the mail and the response were so overwhelming that the station asked them to stay on. They agreed and are on during the drive time (4:00 to 6:00 p.m.) in the late afternoons.

Joe — as an amateur — never went off the air. He graduated from La Salle College, continued his education, and became a teacher.

He never lost his enthusiasm for broadcasting, however. He continues his work at St. Charles Seminary and the Holy Family in Philadelphia as an Assistant Professor and Chairman of Oral Communications.

Ed has his own insurance business. Luckily, both Ed's and Joe's jobs allow them enough freedom of schedule to take on the old-new chores of a daily radio show.

On a recent day, both performers were on a two-hour television show as guests and went from there to the radio station, where they did a four-hour stint of The 950 Club. Fellow amateurs were amused to hear Joe, later that evening, hamming it up as usual. No matter how much the professional chores demand of him, he still is a radio amateur at heart and finds chatting with his friends a relaxation.

Joe and his wife, Pat, were married in 1945. They have two daughters. One — JoAnn — is a nurse; the other, Maureen and her husband Otto made them grandparents last year when Gregory was born.

Ed and his wife, Cissie, were married in 1950. They have two children — a



Joe Grady, W3FVW, is at work on the air — 950 on the dial. (Photo by Carol Baxter)

daughter, Merle Anne, and a son, Brian. Cissie produces the popular Variety Show Telethon each year. The recent show is very successful.

Joe does a lot of his hamming in the mobile as he travels between his three jobs daily, each in a different location in the city. He has been an amateur for 35 years and use the phonetics Fine Vintage Wine; in a different mood, he answers to Funny VW. The recent flurry of attention is something he looks at very philosophically. "I didn't seek it. We just went back for a two-week revival and I never expected the response which being back on the air generated. It's been fun. It is great hearing from so many old friends, and Ed and I are having a ball! As long as people enjoy the show and the station wants us, we'll keep going."

One of the original gimmicks of the show was a plug for the school and every phone caller still names his or her alma mater.

The rapport between the two performers has remained warm and witty. Despite a few added years, they still indulge in the same nonsense and chatter that delighted their fans back then.

Ed has never gotten into Amateur Radio. He confides, "I'm hammy enough", with a grin.

Joe occasionally speaks with affection of his Amateur Radio friends while on the show. They are faithful listeners and can be heard kidding Joe about one of the phone calls received when they contact Joe a day or two later.

A spin of the dial and an accidental contact with the show in progress stops the listener in their tracks and they are transformed back in time when life seemed simpler and less complex.

How does Joe feel about today's music? His eyes twinkle and he replies with a grin, "I don't know. I'm living back in the '40s and '50s these days." □

Valley and all future amateurs.

Over 150 people attended the dedication. After the ribbon-cutting ceremony, a radio contact was made with Abe's brother-in-law in Haiti and several members of the Cutler family were on hand to speak with him. Dr. Len Rosen, N2LR, operating the station at this time, also made contact with many other stations who were aware of the dedication ceremony and wanted to be part of the activities. □

New station honors WA2ONB

The Chaverim of Delaware Valley recently celebrated the opening of their radio station (K2UK) at the South Jersey Jewish Community Center in Cherry Hill, New Jersey, in memory of one of their past members — Abe Cutler, WA2ONB. Abe's wife, Cissie, very generously donated his radio equipment to the Center to be used and maintained by the members of the Chaverim of Delaware

VISIT YOUR LOCAL RADIO STORE

CALIFORNIA

Ham Radio Outlet
2620 W. La Palma
Anaheim, CA 92801

Henry Radio
931 N. Euclid
Anaheim, CA 92801

Ham Radio Outlet
999 Howard Avenue
Burlingame, CA 94010

Jun's Electronics
3919 Sepulveda Blvd.
Culver City, CA 90230

Jun's Electronics
7352 University Ave.
La Mesa, CA 92041

Henry Radio
2050 S. Bundy Dr.
Los Angeles, CA 90025
(213) 820-1234

Ham Radio Outlet

2911 Telegraph Ave.
Oakland, CA 94609

The Radio Place

2964 Freeport Blvd.
Sacramento, CA 95818
(916) 441-7388

Ham Radio Outlet

5375 Kearny Villa Road
San Diego, CA 92123

Tele-Com/Alltronics

15460 Union Avenue
San Jose, CA 95124
(408) 377-4479 or 371-3053

Quement Electronics

1000 S. Bascom Avenue
San Jose, CA 95128

Ham Radio Outlet

6265 Sepulveda Blvd.
Van Nuys, CA 91401

ILLINOIS

Aureus Electronics Inc.
1415 N. Eagle
Naperville, IL 60540

MASSACHUSETTS

TEL-COM Communications
675 Great Road
Littleton, MA 01460
(617) 486-3400 or 486-3040

NEW YORK

Radio World, Inc.
Oneida Cnty. Airport Terminal Bldg.
Oriskany, NY 13424
(315) 337-0203
(800) 448-9338/out-of-state

MISSOURI

Henry Radio
211 N. Main Street
Butler, MO 64730

OHIO

Universal Amateur Radio, Inc.
1280 Aida Drive
Reynoldsburg, OH 43068
(614) 866-4267

DON'T FORGET . . .
Include first and last names with call signs.

Go on Field Day

George Anderson, W7ON

Are you new to Amateur Radio and wonder what Field Day is all about? Perhaps you're an old-timer who is still wondering. Wonder no more because you are about to learn how Field Day encompasses more aspects of Amateur Radio than anything else you could do. No matter what your age, ability, experience, license class or interest, there is something for everyone. You don't even have to be licensed yet to participate! Field Day is the most popular Amateur Radio event of the year with thousands of amateurs participating all over the United States.

But, you say, I still haven't told you what Field Day is. Let me try. Once a year, on the last weekend in June, amateurs nationwide pack up their portable and emergency gear and head for the field (or a mountain top), set up camp, and try to contact as many other similar groups as possible over a 24-hour period.

Most amateur frequencies and modes are used, including the OSCAR satellite. Emergency power is typically coaxed from a reluctant generator, but more recently such sources as solar panels and windmills have been used.

The idea behind Field Day is an emergency preparedness exercise that encourages amateurs to maintain portable communications equipment and to develop operating skills under difficult conditions. In the event of natural disasters, which seem to occur all too frequently, amateurs are usually the only source of immediate rescue and health/welfare communication. There is seldom commercial power available.

Got the picture yet? Field Day sounds like it has a great purpose, but what do you actually do? Although there is a serious purpose to Field Day, the actual fun (and funny) activities of setting up a communications camp sometimes turns into a battle with Murphy. You cannot imagine the ingenuity required when the

antenna part you need was left at home or the guy rope is 10 feet too short. Have you ever spent hours erecting an antenna 40 feet up only to discover that you forgot to solder the coax center conductor? Of course, you don't discover this until 3:00 a.m. during the middle of the contest.

Did I say contest? Yes, Field Day is also an ARRL contest with rules, points, multipliers and some of the most competitive operation you may ever experience. If you have never tried a contest before, here is your chance. Don't feel shy. Most everyone else at Field Day is not an experienced contester either. At least not at the beginning.

What about that 40-meter log periodic you read about, but that won't fit in your backyard? Build it and try it in the large outdoors. Experiences and experimenting are limitless on Field Day.

Although some go it alone, most everyone goes to Field Day with a group. Sometimes it's a small group, but usually it is your local club members, families, friends, or anyone who wants to tag

along. Depending on the group's size, there are typically two to six stations set up and operated simultaneously. This creates a lot of operating and technical challenges that are solved only by team spirit and cooperation. The camaraderie that develops lasts beyond Field Day, and many times provides new amateurs with a unique opportunity to find an Elmer. What is an Elmer? Well, that's the title of another article.

I've only been able to touch on the highlights of Field Day. You must share the experience yourself to get the complete definition. How about giving it a try this year? The dates are 26-27 June.

— Arizona Desert AIRE Waves □

How appropriate

Amateurs who have worked Stephen Pakula, W6MED, of Saratoga, California, may not have been aware of just how appropriate Stephen's call is. His full title is Stephen B. Pakula, M.D. □

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.

ARIZONA

Metropolitan Amateur Radio Club
J.C. Penny Restaurant, El Con
Tucson, AZ
Call in on 34/94 K7CC/R
Every Saturday morning - 8:00 a.m.

CALIFORNIA

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

Lake Elsinore Valley Radio Club
Wildomar Elem. Sch. (corner Palomar Rd. & Central)
Take Baxter Rd. turn off 71 Freeway
Monitor 146.55 simplex
3rd Thursday/monthly — 7:30 p.m.

Marin Amateur Radio Club (Founded 1933)
Coop Meeting Room
71 Tamal Vista Blvd
Corte Madera, CA 94925
1st Friday/monthly — 8:00 p.m.

Mt. Diablo Amateur Radio Club, Inc.
PO Box 23222, Pleasant Hill, CA 94523
Meets: Grace Presb. Church, 2100 Tice
Valley Blvd., Walnut Creek, CA 94595
3rd Friday/monthly — 8:00 p.m.

Nevada County Amateur Radio Club
Christian Church
135 Winchester Ave. — Grass Valley
2nd Monday/monthly — 7:30 p.m.
(916) 272-4873

North Hills Radio Club
P.O. Box 41635, Sacramento, CA 95841
Meets: Gethsemane Lutheran Church
4706 Arden Way, Carmichael, CA 95608
3rd Tuesday/monthly

San Gabriel Valley Radio Club, Inc.
Bowling Green Clubhouse
Arcadia County Park, Arcadia
1st Tuesday/monthly — 7:30 p.m.
(except June & December)

Satellite Amateur Radio Club, W6AB
PO Box 1615
Vandenberg AFB, CA 93437
1st Thursday/monthly — 8:00 p.m.
Building Z1160, Vandenberg AFB

VISIT YOUR LOCAL RADIO CLUB

Sonoma County Radio Amateurs, Inc.
Box 116
Santa Rosa CA 95401
3400 Chanate Rd
1st Wednesday/monthly 8 p.m.

S.C.A.T.S./WB6LBU
S. CA Amateur Transmitting Society
P.O. Box 1770, Covina, CA 91722
Cortze Park Rec. Hall
1st Monday/monthly — 7:00 p.m.

Stockton Amateur Radio Club
University of the Pacific, Room 238
2nd Wednesday/monthly — 7:30 p.m.
Club repeater net roll call:
Wednesdays 8:00 p.m. — 147.165/765

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.

GEORGIA
Atlanta Radio Club
Box 77171 Atlanta, GA 30357
1st Thursday/monthly — 7:30 p.m.
Community Rm./Perimeter Mall Shopping Center
Call (404) 971-HAMS Net Sun. 9:00 p.m. 146.22/82

Columbus Amateur Radio Club (CARC)
David Nully, N4ATI, Secretary (404) 687-3272
The Quonset Hut next to Food Stamp Center
Buena Vista Road at the "Spider Web"
2nd and 4th Thursday/monthly 7:30 p.m.

ILLINOIS
Illiana Repeater Systems, Inc. (IRS)
Palmer Amer. Nat. Bank Comm. Rm.
Danville, IL
3rd Monday/monthly — 7:00 p.m.
Call-in WB9YJF/R 146.22/82 "Super 82"

Tri-Town Radio Amateur Club
P.O. Box 302, Hazelcrest, IL 60429
Above Hazelcrest Police Station
Net every Wed. 8 p.m./146.49 MHz
1st & 3rd Friday/monthly — 8 p.m.

INDIANA
Allen Co. Amateur Radio Tech'l Society, Inc.
P.O. 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
2512 Glenwood Ave., Fort Wayne, IN 46805
The Salem Church
3rd Friday/monthly — 7:30 p.m.

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

SE Michigan Amateur Radio Assoc. (SEMARA)
PO Box 646
St. Clair Shores, MI 48083
South Lake High School
1st Friday/monthly (except July and Aug.)

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

NEW JERSEY
Delaware Valley Radio Association
Villa Victoria Academy
River Road (NJ 29) at I-95, Trenton
(609) 882-2240, call-in 07/67
2nd Wednesday/monthly — 8:00 p.m.

Glouster County ARC, W2MMD
PO Box 370, Pitman, NJ 08071
American Legion Post
Delsea Dr., Rt. 47, Clayton, NJ
1st Wednesday/monthly — 8:00 p.m.

Old Bridge Radio Assoc. (OBRA)
Cheesequake Firehouse — Route 34
Old Bridge Township, NJ
Daily 8 p.m. Net on 147.72/12 MHz
3rd Thursday/alternate (odd) months 8 p.m.

NEW MEXICO
Eastern New Mexico ARC
First National Bank, Clovis
Box 206 • Clovis, NM 88101
(505) 763-6960/356-5993
2nd Tuesday/monthly — 7:30 p.m.

NEW YORK
Genesee Radio Amateurs, Inc. (GRAM)
PO Box 572, Batavia, NY 14020
State Civil Defense Center, Batavia
(behind NYS School for the Blind)
3rd Friday/monthly — 7:30 p.m.

OHIO
Ashtabula County ARC
Ken Stenback, A18S (964-7316)
County Justice Center
Jefferson, OH
3rd Tuesday/monthly — 7:30 p.m.

C.A.R.S. (The Clyde Amateur Radio Society)
Gary A. Kauffman, WB8MUG, Secretary
2nd Tuesday/monthly 7:30 p.m.
Community Rm., City Building, Clyde, OH
Repeater 147.075/675 MHz

NOARS (Northern Ohio ARS, Inc.)
P.O. Box 354, Lorain, OH 44052
K8US (216) 988-2345/near OH T.P. Exit 8
3rd Monday/monthly — 7:30 p.m.
K8KRG/R 146.10/70 — 144.55/145.15 —
449.8/444.8

OREGON
Clatskanie Amateur Radio Club
Route 2, Box 553
Clatskanie, OR 97016
Clatskanie Grade School Library
2nd Tuesday/monthly — 7:00 p.m.

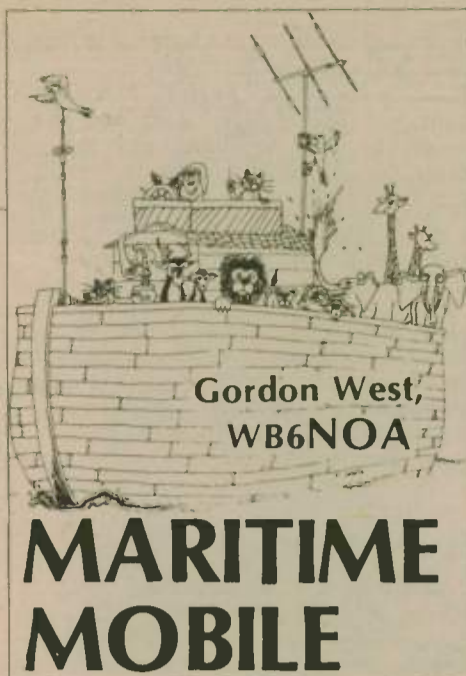
TENNESSEE
Lakewood Amateur Radio Club
Harvey Cross, W4PKM, Activities Mgr.
Rt. 8 Box 460, Morristown, TN 37814
State Area Vocational School
Last Thursday/monthly — 7:30 p.m.

TEXAS
Garland Amateur Radio Club (GARC)
146.775/146.175 K5QHD/R (Info Net Mon. 8 p.m.)
Garland Women's Activity Building
713 Austin Street, Garland
4th Monday/monthly — 7:30 p.m.

Oak Ridge Amateur Radio Club
Dick Church, N4ARO (615) 482-9054
Oak Ridge Civic Center
W4SKH/R 146.28/88
2nd and 4th Monday/monthly — 7:30 p.m.

VIRGINIA
Southern Peninsula Amateur Radio Klub (SPARK)
P.O. Box 9029, Hampton, VA 23670
Call Steve Silsby, WA4BRL (804) 599-6877
VEPCO Bldg. (Pembroke and G St.)
1st and 3rd Wednesday/monthly

WASHINGTON
Seattle Wash. Area Mike and Key ARC
305 S 43rd St. (across from VG Hospital)
Renton, WA 98055
The Good Neighbor Center
3rd Saturday/monthly — 10:00 a.m.



Land-locked sailors

Thanks for the mail. This column is receiving over 50 letters a month, sent to me directly from Worldradio readers. I try and answer every letter, but please be patient!

Maritime mobiling by Amateur Radio is a fascinating subject. But wait a minute — not every amateur who is a mariner has a boat!

As an Amateur Radio operator, it's possible you might qualify for a maritime mobile FCC license shore station. If you work closely with United States Coast Guard Auxiliary, or if you regularly have a need to communicate with ships at sea on frequencies other than ham frequencies, there are licenses for a shore station.

Let's take a look and see what type of shore stations are available to you in the maritime mobile radio service.

Amateur maritime net control

There are about six nationally recognized maritime mobile nets that operate daily on amateur frequencies. These stations are always soliciting shoreside amateurs to help run phone patches to ship stations who come on frequency with traffic. A ship will announce, through the net control operator, where he wishes to talk to. The net control will then ask for stations in that area. If you're in that area, announce your call sign, and the net control will recommend a frequency

higher or lower for you to communicate with the ship station. No phone patch? Many ship stations are more than happy just to hear a response to a message.

Look on page 11 of the May 1981 issue for a list of the net control operators. Listen in on the net, don't transmit at first, and get the hang of things before you offer your station for phone patches or messages.

Limited Coast station

Amateur Radio stations that regularly communicate with vessels at sea may qualify as an FCC licensed "Limited Coast II-BL" radio station. Under FCC Rules 81.351b, qualified applicants will be granted a shoreside license for both VHF and high seas marine frequencies. On VHF marine channels, you will be allowed up to 50 watts output. On the high frequency marine single sideband channels, you may be allowed up to 1,000 watts input.



Limited Coast station in author's car. Marine radios are those with a keyboard.

Limited Coast station licenses are generally granted for businesses and organizations that regularly communicate with a fleet of vessels at sea. The channels you are assigned on high frequency and VHF will be shared by other commercial shore stations, such as towboats, fishing boats and pleasure craft. Your license will allow you to back up Amateur Radio communications with regular marine channels to communicate with ships at sea. Permissible communications will be limited to safety messages, or ship traffic. This means you can't ragchew on the marine channels. However, you may discuss with Amateur Radio-equipped ships at sea the following subjects: 1) safety communications,

2) radio coordination communication, 3) weather, 4) regular ship traffic, and 5) rendezvous.

Maritime channels are many times less crowded than amateur channels. If you regularly communicate on ham frequencies with vessels that have both Amateur Radio and marine single sideband or VHF, a Limited Coast station might be considered.

FCC Form 503 should be used if you apply for a Limited Coast station.

Mobile marine station

You may also qualify as a Limited Coast station at a "temporary location". This license allows you to communicate with ships at sea with marine radio equipment in your vehicle. That's right, beside your mobile Amateur Radio, you can operate a 78-channel marine VHF set, as well as a high seas marine single sideband.

There are no fees involved in filing for a Limited Coast station for either a home station or a mobile station. You will generally be granted two or three marine VHF channels. You will usually be granted one or two marine high frequency channels in each major marine band. There are marine upper sideband frequencies in the 2 MHz band, 4 MHz band, 6 MHz band, 8 MHz band, 12 MHz band, 16 MHz band and 20 MHz band. You may only use Part 81 type accepted marine transmitters for the maritime mobile service.

Equipment considerations

I'll answer your next question right now. No, the new ICOM 720, the Drake series and Collins series Amateur Radios do not qualify for being type accepted under marine regulations Part 81. Sorry about that. Also, only certain VHF sets carry Part 81 type acceptance.

Also not permissible under the rules is communicating from one marine shore station to another marine shore station, except in an emergency. Your communications are limited from shore to ship stations.

Coast Guard Auxiliary

United States Coast Guard Auxiliary is in constant need for trained radio operators to man their direction-finding VHF shore stations. Many Coast Guard Auxiliary units have been formed with almost exclusive memberships of Amateur Radio operators. These Coast Guard Auxiliary units specialize in the communications side of the large role the



The Coast Guard needs your help!

United States Coast Guard Auxiliary plays on the water.

The very first United States Coast Guard Auxiliary VHF direction-finding station was established in Newport Beach, California. This station provides a key role to the United States Coast Guard in pinpointing the location of vessels in distress.

"Over 50 percent of distressed boats, when calling the Coast Guard, do not know their location within five to 30 miles of their actual position," comments Keith Cordrey, W6KVR, Chairman, Direction Finding Network, Eleventh Coast Guard District Auxiliary.

"Such lack of understanding of piloting by these mariners has caused the need for countless hours of boat and aircraft search time by the Coast Guard with its corresponding expense. Our new VHF direction-finding station drastically reduces the amount of time in locating a vessel calling for help on a VHF radio."

The editors of Worldradio salute these hard-working Amateur Radio operators, and a complete description of the Coast Guard Auxiliary DF shore station will be printed in the July issue. Read it. You are a likely candidate!

"Marinized" amateurs

If you are not into boating, you still may wish to get involved with the many maritime nets in the Amateur Radio Service. You don't need to be a boating enthusiast to pass marine traffic. However, it helps.

Spend some time listening in on the Amateur Radio maritime mobile traffic nets. Get some feel as to how these nets are organized before you step in to help. You will find that the net control operators are always on the alert for new members to help out as alternate net controls. The best time to discuss your position in helping with maritime mobile nets is with a control operator after he has finished with his assignment on the air.

Tremendous amounts of Amateur Radio traffic are passed through these nets, so net control operators may appear to be "too busy" for any offers of assistance. Don't believe it! Just wait till after the net is finished before you request more information.

2-meter repeaters

This summer, boating experts feel that more and more first-time mariners will be taking to the waters. You may even wish to start up your own maritime repeater station intended for those at sea. A good repeater location would be one overlooking a populated harbor or waterway. The repeater would be suggested backup communications to the regular marine VHF radio the mariner would have on his boat.

In no cases, should you suggest that Amateur Radio be substituted for regular marine VHF communications. Simply offer Amateur Radio communications as backup to regular marine VHF calls.

Establish a working relationship with your local Coast Guard district. Find out how you may meet with the Coast Guard

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- MIDLAND - 13-500, 13-505, 13-520
- REGENCY - HRT2, HR2, 2A, 2B, 212, 312 (No Sub Band)
- STANDARD - 145, 146, 826, C118 (No Sub Band)
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Unit to discuss your new Amateur Radio marine repeater. Review with the Coast Guard all the information they need to help a vessel in distress. Get inside telephone numbers so you may get through in case of an emergency. Establish what the Coast Guard is looking for in radio range to back up their existing VHF-FM marine radio coverage.



VHF direction finder antenna is the four-element unit at left.

Amateur Radio as a backup to marine communications is always recommended for those who possess the proper license — bootleggers beware! Marine shore stations to back up regular Amateur Radio communications is also suggested. Limited Coast station licenses are free for the asking.

Radio communications at sea is the most important aspect of safety for every mariner. See if you can help. □

Sea-going amateur helps injured seaman

Arthur R. Lee, KA6MIQ

On 9 March, Charles Schaffer, KA6KIN/MM2, and his wife Loretta, were cruising on their 41-foot ketch *Charlo* 35 miles north of Point Abreojos, off the coast of Baja, Mexico. At 1430 PST they picked up a call on the yacht's VHF from the drill ship *Cora*. The drill ship, of Panamanian registry, had an injured crewmember aboard and needed communications assistance in evacuating the injured man from the ship to hospital facilities ashore.

The unconscious crewman's injuries consisted of a broken jaw and a possible skull fracture. The *Cora* was trying to arrange for a helicopter medivac through their home office in Houston, Texas via a Mazatlan contact. *Cora* was experiencing communications problems and wanted a backup evacuation plan in case their initial plan did not work.

Charles Schaffer contacted the Pacific Maritime Net on 15 meters (21.404 MHz) to pass the information. For the emergency, the net control shifted him to an alternate frequency of 14.280 MHz where Mike Simpson, W6CRD, monitored the communications and contacted the Coast Guard at Long Beach and San Diego, California. The San Diego Coast Guard came up on the ham frequency and established backup air evacuation plans if the *Cora* was unsuccessful. The nearest landing field was 500 miles south of San Diego. The line of communications was established by Mike Simpson, who relayed information from the Coast Guard at Long Beach and San Diego to

the ketch *Charlo*. Charles would then relay the information back and forth to the drill ship via VHF marine radio. Communications were relayed at times through amateurs in Hawaii, Las Vegas and Kansas City.

At 1630 PST the *Cora* announced they had arranged for a helicopter and doctor out of Cabo San Lucas to fly out to the ship. The Coast Guard was informed and the emergency was terminated. The Coast Guard maintained a communications watch with W6CRD for an additional hour to ensure that further services were not needed. At last report, the injured man was lifted safely from the ship and in

satisfactory condition in a hospital in San Carlos in Magdalena Bay, Mexico.

Mike works the Pacific Maritime Mobile Net (21.404 MHz) daily and has assisted the Coast Guard and many vessels in distress over the past several years. He spends about three hours per day on the net. Mike is retired after serving 35 years with Western Airlines. □

Hard to believe

Charles J. Ellis, W0YBV, and his wife Martha are happy to announce their new address is Megahertz Manor, Rural Box 8873, Cambridge, Iowa. □

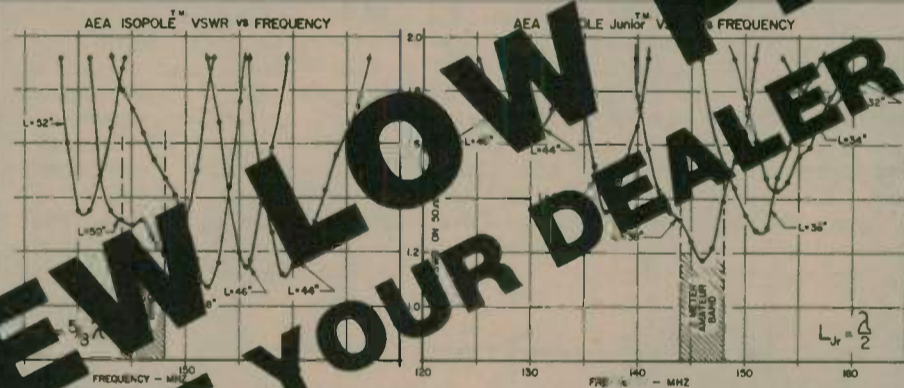
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The IsoPole is building a strong reputation for quality in design and superior performance. The IsoPole's acceptance has already compelled another large antenna producer to make a major design modification to his most popular VHF Base Station antenna. Innovative IsoPole conical sleeve decouplers (pat. pend.) offer many new design advantages.

All IsoPole antennas yield the maximum gain attainable for their respective lengths and a zero degree angle of radiation. Exceptional decoupling results in simple tuning and a significant reduction in TVI potential. Cones offer greater efficiency over obsolete radials which radiate in the horizontal plane and present an unsightly bird's roost with an inevitable "fallout zone" behind the antenna. The IsoPoles have the broadest frequency coverage of any comparable VHF base station antenna. This means no loss of power output from the antenna in the band to the other, when used with SWR protected solid state transmitters. Typical SWR is 1.4 to 1 or better across the entire band.



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Outstanding mechanical design makes the IsoPole the only logical choice for a VHF base station antenna. A standard 50 Ohm SO-239 connector is recessed within the base sleeve (fully weather protected). With the IsoPole, you will not experience aggravating deviation in SWR with changes in weather. The impedance matching network is weather sealed and designed for maximum legal power. The insulating material offers superb strength and dielectric properties plus excellent long-term ultra-violet resistance. All mounting hardware is stainless steel. The decoupling cones and radiating elements are made of corrosion resistant aluminum alloys. The aerodynamic cones are the only appreciable wind load and are attached directly to the support (a standard TV mast which is not supplied).

Operating on MARS or CAP? The IsoPole and IsoPole Jr. antennas will typically operate at least ± 2 MHz outside the respective ham band without re-tuning. However, by simple length adjustment, the IsoPoles can be tuned over a wider range outside the ham bands.

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Seaman enjoys tanker duty

Jane Johnson, K3RIH

Jack's home!

The word quickly spreads on 2 meters in the suburban Philadelphia area. Jack Kennedy is K3OWY (Old Wacky Yankee), and is a merchant seaman on the *Arco Fairbanks*, a supertanker that totes oil from the Alaskan pipeline back down the West Coast ports.

When Jack comes home it is to wife Maggie, K3FXP, and a family of now mostly grown children. He is away on sea duty for a four or five-month stretch and his vacations back home are often three months in between sea stints. He has a sea-going buddy. Her name is Moon and she is a cockatiel. About the size of a dove, this little gray bird is a good traveler. She seems to know when it is time to go back to the ship and she sings merrily as Jack puts her in her carrying case.

Jack and Maggie have lived this vagabond life for many years. They have raised 11 children and have only two sons left at home. While Jack is at sea, Maggie keeps things well in hand. She keeps their Amateur Radio friends abreast of all the news — where Jack is going to or coming from — and he sends a steady stream of picturesque post cards back to the various amateurs.

During World War II, Jack was a sailing skipper on a tugboat in the Mediterranean sea. His ships were torpedoed and sunk twice, but both times he was picked up and escaped serious injury.

Following the war, Jack worked on tugboats in the Philadelphia area, where he got home more frequently than he does now. He joined the Atlantic Richfield supertanker fleet in 1970. These are impressive vessels. There are three with 120,000-net tonnage and some even larger recently completed.

Jack serves as chief pumpman. He is responsible for loading and unloading the tanker's 998,000 barrels of oil capacity. During these periods he often works around the clock. The ship measures 883 X 138 feet, and is 68 feet deep. It draws 51'9" of water, is powered by a 26,000-hour power turbine and has two boilers of 670 pounds each. It carries a 5-blade propeller and two 1000kW generators which put out 459 volts. It can travel at 18 knots, but usually moves at 12-14 knots.

The ship can take on a full cargo of crude oil in 12 hours from its loading point in Valdez, Alaska. It takes 5½ days from there to its California destination.

Back home, weddings, christenings and major parties are planned around Jack's return.

The seaman never fails to come back with interesting pictures and yarns, and is a favorite on the airwaves. Last year he purchased roller skates and many crew members followed suit. It is quite a sight for other ships passing to see the sailors merrily skating around the deck of the big supertanker.

He packs up to 10 bags and crates of gear on his trips to and from the ship. On his last visit home, he got interested in a small electronic organ. He purchased it and made a traveling box, fully lined to protect it, and off he went. His post cards report the crew is enjoying the music. Another box contains all his ham gear. He sends back details of interesting amateurs he meets in his travels.

There was a time that Jack thought he would never want to go to sea again. He was only 15 years old when he first went to sea on a passenger steamer in 1937. The following year he served as a mess boy on a steamship called *City of New York*. The ship had been used on the first Byrd Expedition in 1927 and it was selected for the 1938-39 tour. Jack signed up for the trip, never realizing what it entailed because the description was (perhaps intentionally) vaguely outlined. It was 10 months before the young man would return home. Byrd left the ship behind as he left for the final miles to the Little America site; they were left to wait for his return, there at the South Pole.

Jack recalls, "All we had to do to entertain ourselves after our chores were done was look at ice and play with the penguins. When I got back I swore that I would never go to sea again." Then he laughed, "Now, I look back at the experience as a wonderful opportunity."

What has this life of long separations done to Jack and his wife?

Maggie is a good-natured lady with her feet squarely on the ground. She capably takes care of things at home during Jack's absences, and does it with amazing good humor. When he returns, her life changes. They travel, visit friends and family. It is like he was never gone.



Moon — a cockatiel — uses Jack Kennedy, K3OWY's hand for a perch. Moon accompanies Jack on all his seafaring trips. (Jane Johnson photo)

But after time slips away and vacation nears an end, she knows the sailor is getting restless and is ready to go back to sea. She accepts that as part of her life, and their marriage endures.

Amateur Radio has been a bonus to her life. Through it, she keeps in touch with their mutual friends and the contacts give her plenty to write about in her letters to her sea-going mate.

It seems as though he has been gone a long while when suddenly the word gets

around, "Jack's home!"

"Hi you old sea dog! Welcome home. What's new?"

Moon can be heard excitedly chirping in the background as Jack settles in to tell of his most recent adventures. She seems to be glad to be back too.

Both seacoasts of this country are Jack Kennedy's home. Through his friendship, fellow amateurs glimpse a life they will never know.

SSB mission accomplished

Jane Rice, AD6Z

"That Donald Duck stuff won't stay around," ARRL officials predicted when they told Al Fischer, W6ZHH, that no table space would be allocated for displaying single sideband gear at the 1955 national convention.

That's the way it was in the mid-50's. SSB'ers worked on only 5 kHz on 40 meters, and they drew complaints from both sides. Al set out to prove someone was wrong. In 1956 he and Clayton Bullen, K6AM; Louis Hutson, W6BM (Silent Key); and Michael Kane, W6QJV, founded the Western Single Sideband Association, Inc. for the purpose of achieving recognition and acceptance of the SSB mode. The movement caught hold, and the rest is hamming history. A

total of 6,200 amateurs have, at one time or another, been card-carrying members of the association. During the late '50s, membership reached its all-time peak of 1,600. In 1962, when the association ran out of prospective converts, its ranks were closed except to lifetime members.

The current membership, totaling 60, meets socially every year or two for fun and reminiscence. Their last gathering was for dinner in San Marino, California on 21 February. Two founders were present: President Al Fischer, now W7OA, and Secretary-Treasurer Clayton Bullen, K6AM. Their administrative duties are much lighter than they were 25 years ago. But what they did back then must have been done right, 'cause SSB seems here to stay.



They took sides with Donald Duck. Pioneer single sideband operators Clayton Bullen, K6AM, left, and Al Fischer, W7OA. (AD6Z photo)

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The mystery lingers on

Charles M. O'Brien, W2EQS

For a period of time during World War II, I was assigned to Vint Hills Farm station just a hop, skip and a jump south — southwest of Arlington, Virginia, where our headquarters office was. I was the Officer in Charge (OIC) of Direction Finding and Search. Arlington would tell us what stations they wanted monitored. We had a bay of three receivers locked into those frequencies, each receiver hooked to a separate rhombic, so that if the signal faded on one of them it would be picked up on the other, enabling us to always obtain perfect copy.

They also had a "Search" section, with some 40 men and women under me. We'd work on what was called Tricks. Trick 1 was from 0800 to 1600 local; Trick 2, from 1600 to 0000; Trick 3, from 0000 to 0800.

Frustrations of a radio amateur

George Goumas, N6AWF

Dear Diary:

A funny thing happened today, just before my first 2-meter transmission on my new tower installation. I have waited for this day for the last six months.

If I had kept a diary, that probably would have been the start of the entry for early September 1979. Since then, a lot of things have happened here in Cerritos while trying to get the city to allow my antenna to be higher than 15 feet above the house. Below is what might be considered a condensed diary version of the sequence of events.

September '79 — New tower up — Hur-ray!! Waited two weeks before any antenna on tower. No TVI complaints. Three days after Ringo antenna installation, violation notification letter came from city. First contact with city staff stated, "If you don't like the ordinance, you can always move." Greek-German, Scotch-Irish blood begins to boil. "See you in court," I say. I need \$2,000 for the lawyer's retainer. XYL states, "Are you crazy? Is it worth it?" You know what my answer is.

October '79 — Court injunction against city. City says I "haven't exhausted all legal remedies — must file for variance and am given 30 days to file." Parcel maps, legal owners, etc. etc. Court states this is a waste of court time. Appeal filed. Tried and failed to enlist radio amateurs' and CB'ers' help to circulate petition ... apathy. Three days driving all city streets, counting antennas in violation of ordinance -- 176. Fifty-page packet assembled for neighbors. Amateurs are good guys.

January to June '80 — City working on variance application. Lots of excuses why not completed. Attended all Planning Commission City Council meetings ... got to know the players. City Attorney decides environmental impact report has to accompany variance application. More delays. Now city says can't process variance application while in litigation ... appeal dropped to get things moving. Out-of-pocket expense now over \$4,000. XYL states, "Could have bought a lot of equipment with that. Are you still sure it is worth it?"

July to August '80 — Variance hearing is finally scheduled — great! Right in the middle of my vacation. Nice guys, these City folks. They agree to postpone two weeks. Cut vacation short to circulate

Each Trick was worked three consecutive days or an overall of nine days. All operators then had the next three off.

This "Search" section searched the airwaves from 10 to 4,000 kcs making tapes or typing the copy being sent, and then forwarded it to Arlington to see if they wished us to continue monitoring that station or any given station. If continued monitoring was to be done, it was put on their list and on subsequent lists sent us by them. It must be kept in mind that every automobile and Army truck on our grounds, and all other types of trucks with passes to enter this post had their motors thoroughly gone over to be sure they emitted no noise whatsoever. Same for every type of electrical motor.

One morning, during the Trick 3 period, I threw their 6,000-foot beverage antenna onto one of the receivers to note all unlisted stations on our list, the frequency, time and a sample of what was being transmitted. This particular morning I

petition among neighbors. Accused of being agent for KGB. Variance hearing is 3-1/2 hours. 75 to 80 turn out. Eleven speakers for and no one against. However, variance denied because of no unusual topographical features???

City Attorney admits next to no chance of any variances ever being granted — the way the system is structured, is the answer. Dear Diary, where is my lawyer? Planning Commission directs City staff to meet with amateurs to discuss possible ordinance change. "No real rush" according to staff.

September to December '80 — Still attending Planning Commission and City Council meetings — interesting to see how they handle items opposed by residents. Meeting with staff — what height? Can justify 95 feet. Hope 75 feet is OK with other amateurs in city. Another Planning Commission meeting with AA6DD teaching. City needs more input. FCC to be invited to present its position. Three days going thru Callbook. Gads, 102 amateurs listed in Cerritos. Another mailing list. FCC presentation to Planning Commission. Incomplete; answers are misleading.

Hundreds of complaints in jamming, profanity on air. This is what the FCC rep is saying to the City Council. Dear Diary, is this guy for real? Can't believe he is an amateur. Anger ... Frustration ... Maybe I'll have to go back to court. XYL states, "You ARE crazy!!" More meetings scheduled. Hams starting to band together. Finally, some more help. Maybe with a little luck, a new ordinance will be issued by summer!! — SCATTER, Westminster, CA

(Editor's Note: The battle N6AWF is fighting is a battle for all of us. Whatever rulings come out will be quoted in other areas.

Any financial donation you wish to make should be viewed as more than charity. Such would be an "insurance" payment. All such ordinances have to be nipped in the bud. The best way to stop the "dominoes" of ridiculous regulations from spreading to your doorstep is to stop it far away.

The best way to keep what is happening to N6AWF from happening to you, is to prevent him from losing.

Also, let's show his suffering XYL that her husband isn't crazy. (N6WR) □

just happened to decide to tune over the old 160-meter band — the band on which I had had my very first QSO in '32 and my favorite band of all. Lo and behold! What did I run into on 1950 (or 1850) kcs, but an awful, wide raucous signal. What was it? What was it?!

Immediately upon the arrival of Captain Wainer and Colonel Thompson, I let them listen. They got the electrical repair department on the phone, and had them come over and listen to it. Every single vehicle on that post was put under a thorough checking immediately, but that noise still persisted. Next, every motor on the post was thoroughly checked but the noise still persisted.

At this point they put through a phone call to Arlington, only to be told that it was a super-secret type of transmission known as LORAN — Long Range Aid to Navigation. Very strange. Here we were — the country's #1 Radio Intelligence station yet not even notified of this.

Well, that was in 1945 and it wasn't un-

Silent Key

Written and submitted by David W. Crane, WB4ERU

The untimely death of Albert M. Pichitino, K4JY, left a vacant spot in the hearts of his many Amateur Radio friends.

Al was first licensed at age 14 under the call of W8KML. He later entered the University of Michigan and studied electrical engineering. Upon graduation, he did post-graduate study at both Harvard and M.I.T. (Massachusetts Institute of Technology).

til just this past 31 December at midnight, Eastern Standard Time, that they finally went QRT ... 35 years of torment trying to copy or listen through it.

So, an old 160-meter amateur found it at Vint Hills Farm Station, Warrenton, Virginia and that same old ham, known as W2EQS, is still going strong on 160 and saying "Thank God the ordeal is finally over." I know of one ham, a close personal friend of mine, who was instrumental in setting up LORAN. He was in the Pentagon, if memory serves me correctly. And he, too, still works 160. I don't think it would be proper for me to mention his name or call, but if he reads this, he knows who he is and may give you his side of the story.

As Paul Harvey, the newscaster, would say: "And now you've heard the other side of the story. — Good night" with the rising inflection on "good night". Now, if only we could get my friend's side of the story. □

During World War II, Al was a U. S. Navy officer where he received a commendation for "original and unique" development and contribution to the only fully automatic missiles in operational use.

After leaving the Navy, he became the Chief Engineer of E.F. Johnson Company of Waseca, Minnesota, where he helped develop their Amateur Radio line.

Al was granted many patents and had several articles published in QST and CQ Magazine. His familiar voice will be missed by the many amateurs who knew him. □

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National International Net (NIN) — your help needed!

Try sending "NIN" on your key, keyer or "bug" — whatever you use to make CW music! A few former NNN (National Novice Net) members have expressed their approval of such designation; we hope "it takes." The code characters "N" and "I" are simple, easy to send or understand. If there can be some accord about this, let us move along to other details, such as *is it possible to have such net on the 15-meter Novice band rolling by July 4th?*

Although, this time around, I've been reluctant to suggest either the time or proposed frequency, it appears that the greater number responding assume it should be at 2300Z and near 21.150 kHz. 2300Z falls on the day at hand locally, which is an advantage for those who do not regularly use UTC. Also, there should be no big reason to change it when the United States changes local time. 21.150 as a frequency falls in the middle of the band, which gives ample room both "up" and "down" for stations to move from the net frequency. Both have been well-publicized. We need to state a time and frequency, as a starter; also, the printing deadline for having NIN listed in the 1982 Net Directory is now in June. Can we agree that this be an exigency of the moment that can be reviewed later, when the net is back or resumes operations?

Without exception, those who sought a frequency near the band edges are gaining experience with traffic nets and realizing a net must have space on both sides of the net frequency. As has been pointed out, some stations seeking a clear space to handle traffic off the net frequency might likely end up being forced toward the middle of the band, so better the net operate there. Likewise, the stations suggesting 0000Z as being "a more distinctive time" realize such time would confuse even some of those who suggested it, falling on the calendar date ahead of the day.

Yes, it must be agreed — the 4th of July would be a GREAT DAY, as a starter; but at the time this is being written, we do not have a nucleus upon which to build. It might be better to try and launch such a nucleus on the 4th of July, in the

form of an informal roundtable. Among those who have responded to radiograms and/or letters, having sent in their telephone numbers: Ken Hand, WB2EUF, of New York; Captain John O'Brien, N1AWX, formerly KA1BDE of Massachusetts; Walter Green, N5CRR, formerly KA5CTK, Texas; Mike Rice Jr., W9UW, former KA9FSQ, Wisconsin; Richard Nemcovic, KA4MCM, Florida; Don Bowman, WD0HND, Iowa; Don Driver, KA9CRF, Indiana; Kerry, KA4SIG, Tennessee.

This does not list those who were short of time, or for other reasons stated they may help after the net is in operation. Likely I have missed a few who may have responded to radiograms, as I have been out part of the time. A few were serviced back because the addressees had unlisted or unpublished phone numbers presently. This brings up a point that should be covered at this time.

Communications between communicators

A few of my radiograms, sent to former members of NNN with telephone numbers listed on the roster, were serviced back to me because those former traffic-handlers now have unpublished telephone numbers. Assuming they may still be interested in traffic-handling, what should they do so they can be reached? First, if they do not wish to have their new phone number published in the various net rosters, pick someone — perhaps the net manager, or others they "trust" — someone who is aboard the local or section nets almost daily. Let the trusted party hold the number, which can be given out only when there is traffic for the person with an unlisted number.

Don't be kidded by thinking your unlisted number is not given out by telephone companies. In one instance, the party paying that extra money for having an unlisted number had some very unusual calls and determined to find out what was going on. You will be reading of this, as he sued the telephone company and is also asking a refund on the extra money he has paid, together with a smart sum, for "smarting" him.

The increasing postage rates, and avowed higher rates to come, are hurting us. All our publications are costing more, we receive fewer letters from our friends and incidentally, if I've promised anyone on the air, or otherwise, that a sample copy of Worldradio would be coming your way — that's now out. Sorry about that! The way non-subscribers can now obtain a sample copy is to write to Worldradio and request it.

If traffic-handlers send along their phone numbers to stations taking their traffic, it will help. Another help would be to indicate which local nets you work. In Southern California, I've often indicated "SCN," and should I fail to pick it up, I'll

be getting it from a "SCN-V" member by telephone. Whether we like it or fight it, the NTS is a going thing all over the United States. At Lake Bemidji, where W0MFW and I will be by the time this is printed, we receive traffic off the Section Net MSN, or by telephone from a 2-meter traffic-handler who picks it off the section or regional nets. The telephone number there is (218) 751-0505 and traffic is forwarded into such section nets at times by ARTS (Amateur Radio Telegraph Society). I appreciate the fact that a few radiograms were mailed from California or other places around the United States, but deem it unnecessary. I may hit "sore spots," bringing up a need for further comment.

It can't be done alone!

I've quarreled enough with ARRL Communications Department in the past about some of what, I considered, silly procedure. At times, others have agreed with me, others have *not* — my head has been well "bloodied" at times. Certain employees within the Communications Department occasionally sided with me. Through it all — over a period of 50-plus years — they gained a little respect for my views, but only because I refused to toss in the towel and *never pulled out my membership!* During all this time, I've felt we really do need the ARRL, despite how stirred up I might become over some issues, or how I may have looked at a particular employee or his performance. After all, ARRL is a corporation! Very likely, that fact holds it together. Yet, we members do have access to SCMs and directors, AND have a vote! Now back to the nitty-gritty of the National Traffic System (NTS).

If we don't use it, we might lose it?

That's anyone's guess, as far as traffic nets go, but none can deny that NTS has

many devoted amateurs. One old-timer received his first license and FB call in about 1920. He was so busy handling traffic and acting as NCS, that not only *one year*, but almost *two* slipped by with an expired license. If that isn't devotion, what is? Now up there in years and awaiting operations on his eyes, he is back with a call he detests — and who gets his old *original FB call*? Probably some youngster who would be just as happy with the call the FCC dished out to the venerable old-timer! Some may call this "democracy" or even-handedness, but I'd have another name for it. However, such veteran traffic-handler is back again on the NTS and it is good to hear him there with his golden fist! Yes, there's a lot of that stuff we call "devotion" — on the independent nets as well.

I often listen to the nets that operate as ARTS and other "hit and bounce" nets which operate without need of regular net controls. That is the only way it would be possible to successfully operate a worldwide net such as NIN on 15. With the help of other net members, it might grow and prosper. The real nucleus of ARTS has remained for many years, kept intact between Hub Williams, W5UH, in New Mexico and Bill Bonnell, W5TI, in Texas. In the early morning around 1400Z — or a little earlier toward the East — get on 7060 kHz and call ARTS; usually one or the other will be back to you. When they must be away, others "mind the store" and business goes on as usual. If you watch QST traffic summaries, you may be amazed to note the terrific traffic count ARTS has with *one daily session*. A letter from W5TI might be of interest; members of the future NIN hope for guidance in the art of operating a successful net without net control stations. Quoting from the recent letter:

"ARTS is very much alive and well. It handles more traffic than most of the in-

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dependent nets. Because it is unique in having no NCS, no time problems (operates GMT), is not restricted to 30-minute sessions, most of its members are retired and can operate on the net daily, and covers the entire USA plus outlets into Hawaii and Alaska, the net enjoys a freedom and efficiency no other net can match. We do not have a newsletter anymore. It became too expensive to operate and dues would not cover the expense. We no longer have any dues. We do have a roster, which I send to anyone who asks for it. We have about 40 active stations checking in daily from all parts of the USA. It is no problem to move traffic. We also have several of the "hit and bounce" nets checking in daily where traffic is interchanged. This is a good healthy maneuver, as it eliminates the problem of not giving traffic to an outside net. I wish we could do more of this. Greediness does not pay off.

"I am sending Hub a copy of this letter, plus your card. He may want to make more comments. Your articles for the net have helped a lot, and I thank you, for all of us, for your help. It is greatly appreciated by the entire net. Let's keep in touch Arm, either via radio or letter. I intend to stay with Worldradio from now on. Hub is doing a tremendous job for the net, and between us both I am sure we can keep you up to date. We would be very interested in hearing anything the National International Net has to offer. William F. Bonnell, W5TI, ARTS Net Manager 3820 Hamilton Drive, Fort Worth, TX 76107."

Do the ditter jitters "throw" you?

A dedicated, much-concerned FB traffic handler tells me it's not the speed of operation that "gets" him, but what to say to those who send long strings of "dits" in characters such as, "4", "5" and "6?" He does not wish to mention it, for fear of offending such "ditters." He is hopeful I might do that — and I surely could, but how about you readers? Do you wish to write a letter to "Dear Ab—" — I mean, Dear Arm? Is such form of operation an affectation, such as an accent which is put on to appear — shall we say — "sophisticated?" Or do such operators lack confidence in being understood, afraid you can't count correctly? Do they really lack confidence in CW as a means of communication? Why do certain, otherwise good, operators wish to send "Jungle rhythm" code? How do they get that way? Let's hear it from you readers.

Just listening!

There's much to be learned by listening, besides learning to "copy in your head." One thing — do not hit the key or grab the mike to answer someone, before learning what is going on. But what about "copying code in your head?" To the writer, that indicates "lack of time," yet he spends time with the "boob-tube." How about running a pair of leads from your operating room to a head-set near the TV, then listening elsewhere during commercials? Add up all that wasted time, then decide how best to use it. Learn by listening.

An actor practices every line and every facial expression before the mirror for days, weeks and months before venturing onto the stage. Some radio operators-to-be insist there should be space to practice on the air. Most everyone depends on others to tell them "how they sound." Hook up your audio output to a recorder; then you can record both sides of your QSOs, listen back and make greater progress. Become a GOOD OPERATOR!

"Keercrash, kersplinter, kerbang!" then . . . silence, pieces to pick up

We arrived back in Long Beach in

January, after being away for months. Expected to shape up, enjoy February, March and April on the air, on the *Queen Mary*. A virus took hold in February, causing many trips to clinics to determine why the old ears were "closing." All long-time sea radio operators become somewhat deaf, but why the worsening now? Then in the early wee hours of 5 March, a hit-and-run driver ran his illegally parked car fiendishly down the alley, striking and messing up our garages and demolishing the front end of the former shack, now used for shop and storage. Radio gear of all kinds, letters and QSL files, old photos — everything was shoved with explosive force down the alley amidst broken fences in a pouring rain.

Before coming to rest against a huge power pole down across the alley, four cars were smashed together and up against the side of a garage across the alley — thousands of dollars of damage. Then the driver ran away, leaving the car behind.

Gradually, some things are being put together. It's a headache, thankless task. Two large piles still remain on garage floors, personal belongings mixed with building splinters, some brought back from as far as 70 feet away down the alley. Must dry it out and determine where such "oatmeal" mess fits together. There was an old-time (tube) station, used sometimes to check into nets, while working in the shop. The flu, acquired working

in the rain, I still have. Now you have the answer to questions several have asked: "What's hit you this year?"

Speaking of "dedication!"

Today, 11 April, just a scant four days before the June deadline. IMAGINE, I've received the May issue of *Worldradio* — all the breath I have left goes out in one wheezy WHEEEEE! Am licking stamps right now — shall be seeing you from Bemidji in May. Note the telephone number should go on all traffic — that's important! The address is still Birchmont Drive, but the post office changed the RFD number. It is now: C7, Bemidji, Minnesota 56601. Mention MSN in radio-grams — i.e., via MSN.



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TRAFFIC

Chuck Clark, K4ZN
Assistant Director
Roanoke Division, ARRL

International third-party traffic

Again? No, not yet. It seems a question that just won't go away. Despite the efforts of some of us, it didn't make the agenda of the ARRL's Board Meeting in March, but it is being studied by headquarters staffers and by directors and other officials of the League.

The FCC takes an all-inclusive view of third-party traffic. According to this view, it's illegal to ask someone we are working to get another amateur on the air, unless there is a third-party agreement between the two countries. And "My wife and I want to say how we enjoyed our visit with you last summer," would also be a no-no.

In contrast, as mentioned before in this column, several European administrations take a more reasonable view of the prohibition and see it only as forbidding handling messages for the general public, specifically permitting amateur-to-amateur traffic. The actual interpretation varies from one country to another, and of course we in the United States are stuck with the FCC's interpretation. What will happen when the new faces appear on the FCC's bench remains to be seen. Most people in the know, however, seem to feel there is more hope just now by going the third-party agreement route via the State Department, if the other countries can be persuaded to make such an agreement.

We Americans take a much more rigid — even scrupulous — attitude toward law

than people of many other nations. I'm reminded of a French visitor some years ago who was a bit irritated because the person bringing him from the airport would stop at a traffic light and wait for it to turn green, even if there was no traffic on the other street. "In France, nobody would do that!"

April QST tells of a new third-party agreement between Canada and Australia. As there is none between the United States and Australia, except for traffic concerning satellites, it could be asked if we could legally route any traffic destined for Australia via Canada. I only raise the question and won't answer it. There would probably be two answers: "Why not?" and "Don't rock the boat!" Some would say it's legal until declared otherwise; others would say whether it's legal or not, they don't want to get in trouble with the FCC. Decide for yourself.

National Traffic System (NTS) reaches West Indies

Thanks to the efforts of Gary Carter, NP4D, and others in the West Indies Section, there is now regular liaison between the nets in that section and the Fourth Region Net. Until now, formal traffic destined for Puerto Rico and the Virgin Islands was shuffled around among stations in the Southeastern United States until someone was found who could get it through. Now, however, it is being passed along to its destination in the same systematic way that traffic going anywhere else in the NTS is handled. And amateurs in those parts can send traffic to people on the mainland by simply putting it into their local or section net.

We finally have the NTS giving full coverage of all the United States and Canada, from the Virgin Islands to Guam and American Samoa and Alaska and the Northwest Territories. Now how about looking southward to Mexico, Central America, and South America? We have

third-party agreements with many nations in that direction. Are there any amateurs there interested in participating in an organized public-service traffic activity? If so, make yourselves known and you will be welcomed with open arms by the *norteamericanos*.

The frequency is in use

The spectrum is a finite resource. There is room for only so many stations to operate. And so, with Amateur Radio's consistent growth in numbers, interference is inevitable. And, human nature being what it is, there will be conflicts over who among several claimants may use a particular frequency at a given time.

Traffic nets meet at scheduled times on scheduled frequencies to perform public service, so sometimes feel they should have priority use of a given frequency at that time. After all, that's where all the net members will be looking for the net. And other stations can easily move. It's much easier for two stations chewing the rag to shift than it is to move 20 or 30.

But not everybody sees it that way. To many amateurs, nets are band hogs. And a peremptory demand that someone move to make room for a net certainly does nothing to dispel that attitude.

After a net has begun, it's almost inevitable someone will pick the frequency to tune up or to call CQ. Should one ask such people to move? Here are some thoughts on the question:

You're wasting your breath telling a tuner-upper or CQ'er to move while the latter is actually transmitting. Few amateurs are equipped for duplex operation, and a lot of these types don't even seem to have a receiver.

On CW nets, it's often possible to move the net a hundred Hertz or so up or down to get away from the trouble-maker. That's not so easy on sideband, as any significant frequency shift will make

speech unintelligible.

When several people try to ask the station to move at the same time, the operator probably won't understand what any of them is saying. There is only one kind of operation that has any legal right to tell others not to interfere, to be silent or to move, and that is not net operation, nor is it W1AW's bulletins or code practice. The only type of operation that can claim such a right is emergency communication — messages of such urgency that lives are threatened by any delay in handling it. Aside from that situation we're all equal, so two stations chewing the rag have just as much right to occupy a given frequency as a net that meets there every day. A request to move is proper; but if the other stations do not move, the net simply has to do the best it can under the circumstances.

In some cases, it is possible to be guilty of deliberate interference in trying to force people off the net frequency, and that's a clear violation of the rules.

Proper net discipline indicates that only the net control should undertake to ask someone to move. I've often thought that if someone asked me to move I'd ask him if he were the net control station or had been directed by the net control station to ask me to move. If not, I'd give him a lecture on proper net discipline — maybe make it a long one just to be mean!

If someone asks, "Is this frequency in use?" a net member might answer, "Yes, it is," if it doesn't seem that net control heard, but no more than that.

If it's a kook who is giving you deliberate interference, just ignore it. Work around or through it the best you can. If you deny the kook the ego trip he wants, he will soon feel he's wasting his time there and go pester someone else.

Nets certainly do conserve spectrum. If the 20 or 30 stations in a net were engaged in ordinary two-way contacts, they

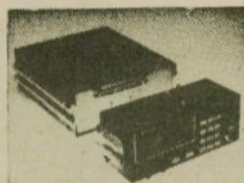
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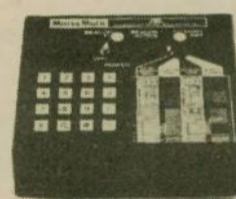
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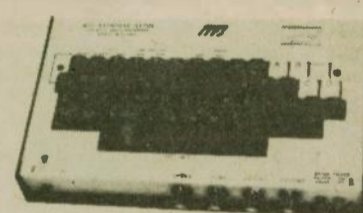
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would occupy much more spectrum than the net. Since many amateurs do not realize this fact, we should remind them of it, remembering to also keep a low profile on the bands. We should attend to our public relations, in other words.

Net discipline

On nets in the amateur bands, net discipline mainly consists of transmitting only at the direction of net control. Many times, I've been succeeding in copying traffic through interference until someone on the net tries to help by telling the interfering station to move, perhaps giving a lecture on how important a public service this net is rendering and how such interference disrupts that public service, all the while causing more interference himself.

Recently I was listening to a MARS net outside the amateur bands, marveling at the circuit discipline that was being maintained. Of course, they have less trouble with interference; most amateur transceivers won't even reach their frequency. But they also have more detailed procedures and insist those procedures be carefully followed. After participating in a net on the amateur bands, I thought the MARS net sounded pretty good, until I stayed on the frequency after the net had closed and listened to a special net for MARS officials. One after another complained that procedure was becoming sloppy and insisted it should be corrected. For example, "The proper response to a

station who asks to close is, 'I have you closed,' not, 'I list you closed,' or something else. I admit that this is nit-picking, but there is a reason for it. If we don't insist on sticking to the prescribed procedures, we'll soon be saying, 'You may secure,' or something else."

There is a special reason for this insistence on exact phraseology on MARS circuits. They use both amateur and military operators, and some of the latter may not be familiar with amateur procedures; hence, it is necessary that military procedures be used. MARS is intended to serve as a backup communication service for the military, to provide a means of communication when ordinary circuits are out of order or overloaded.

But there is another reason, and this applies to amateur circuits, as well. When conditions are bad, it is often possible to understand something if we already have a general idea of what the other person is saying. A good example is the use of phonetics. If everybody uses the same word to indicate a given letter, you have a better chance of knowing what letter is meant. If one operator says ECHO, another EASY, and someone else EAST for the letter E, you don't stand as much chance of recognizing it as you do when everybody uses the same thing. For many years now, the use of the International Civil Aviation Organization (ICAO) phonetic alphabet has been standard in Amateur Radio, as it also is in military

service and in the aeronautical radio services. It is given in the box included with this column — the 26 letters of the English alphabet and the standard pronunciation of the ten numerals.

MARS

The U.S. Armed Forces have had a more than passing interest in Amateur Radio ever since World War I, when amateurs provided thousands of urgently needed radio operators. While it is true that some of the interest has been negative — as when the Navy (or some people in the Navy) tried to get Congress to give the Navy control of all radio operation in the United States back in the early part of the century, and when at various times some military and civilian officials in Washington see the principal value of Amateur Radio as holding frequencies that the military can seize in a hurry in case of a major war (as happened in World War II) — it has mostly been positive.

Shortly after World War I, the Army and Amateur Radio formed the Army-Amateur Radio System, and the Navy soon followed with the Navy Communication Reserve. The Army's organization was much like present-day MARS — a back-up civilian communication network, while the Navy's was a part of the Organized Reserves, and its members were Naval Reserve personnel. After World War II, the present MARS (Military Affiliate Radio System) emerged with three organizations: Army, Air Force and Navy-Marine Corps.

Members of MARS are civilians, assume no obligations on joining and may resign at any time. A certain minimum amount of participation is required to maintain membership, and members may have their membership terminated for cause. A MARS station is not an amateur

station, but rather a U.S. government station, while operating in this service, and operates on frequencies allocated to the fixed service by international law and to the military by the U.S. government. While operating as a MARS station it is not subject to the FCC but to the military, although any complaint by the FCC to the military will result in some undesired attention from the military authorities.

Like all government organizations, MARS is periodically evaluated, and always comes out with flying colors as a real bargain for Uncle Sam — a capable backup for the military's communications that costs next to nothing and an efficient channel for handling traffic for U.S. personnel, particularly in overseas assignments that could be duplicated in no other way.

Amateurs who are interested in learning more about MARS may contact any or all of the following:

Chief, Army MARS; U.S. Army Communications Command, Attn: CP-OPS-OM; Fort Huachuca, AZ 85613.

Chief, Air Force MARS; HQ AFCC/XOPR; Scott AFB, IL 62225.

Chief, Navy-Marine Corps MARS; Building 13, U.S. Naval Communications Unit, Washington, D.C. 20390.

Which one to join, if you want to join any? You might see what each has to offer and make up your mind. Or ask amateurs who already belong. There really isn't a great deal of difference among the three; in fact, it has often been asked if perhaps one MARS might be more effective. But that would complicate the chain of command, and military commanders like to keep it simple: "Just do what I tell you." At any rate, MARS is an excellent way to use your skills for the good of the country, and MARS can use more help too. □

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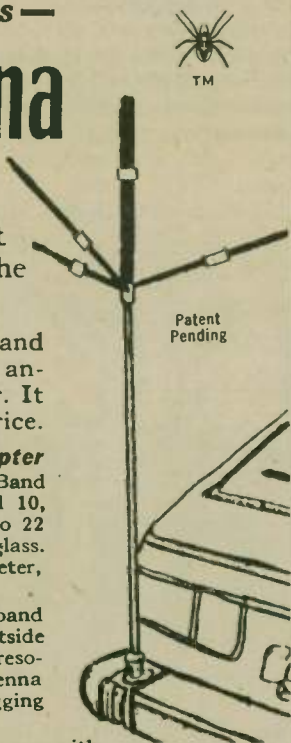
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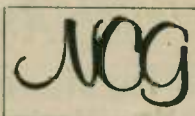


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SSTV

Dave Ingram, K4TWJ

After a rather lengthy absence as video activity editor for Worldradio, we're back with more news and views in the world of amateur Slow Scan and Fast Scan Television. Hopefully, additional side projects will not again "boggle" us under. Time will tell if this is destined to be a monthly or "occasional" column. During the absence, I did manage to turn out two new books: *Secrets of Ham Radio DXing* and *44 Electronics Projects for Hams and Experimenters*. Both books are now being marketed by: TAB Books, Inc., Blue Ridge Summit, PA 17214. Long's Electronics in Birmingham (1-800-633-3410) also sells these books. Yes, both books bear a favorable "slant" towards Slow Scan communications and should prove beneficial to DXers, experimenters and TV'ers. We also worked up an "Amateur Radio Frontiers" series for CQ (the next in series will cover SSTV), designed a \$350 TVRO for satellite reception, established video information links on four continents, assembled a local ATV network (complete with two repeaters for coverage of this mountainous and heavy foliage area of the deep South), laid out an EME (Earth-Moon-Earth)-TV setup, etc., etc. Enough of that, however, as you're surely more interested in SSTV and FSTV happenings — right?

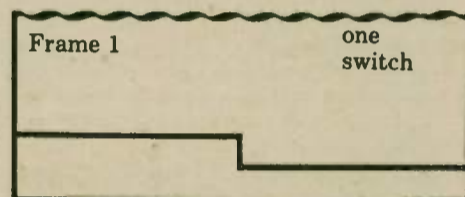
Refinements, evolutions and new designs

Some significant advancements in SSTV technology have taken place — namely, in the areas of real time color Slow Scan and in computer-processing techniques. Two articles describing state-of-the-art color SSTV were presented in December '80 QST (Don Miller, W9NTP) and January '81 QST (J. Royle, G3NOX). Essentially, today's concept involves loading sequentially transmitted red, green and blue SSTV pictures into separate digital memories, simultaneously accelerating all memories to Fast Scan rates, and directing the resultant video(s) to red, green and blue amplifier stages of a color TV. W9NTP uses a single Robot 400 modified for two complete 65K bit

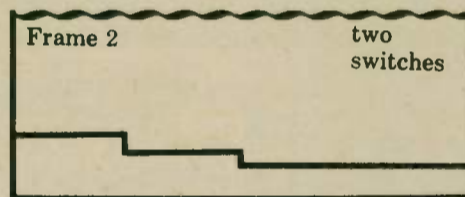
memories (red and green are inverted, matrixed and used to synthesize blue), while G3NOX uses three separate Robot 400's — one for red, one for green and one for blue video. Several versions of each system are presently active on the air, however the W9NTP approach is substantially less expensive to implement (one-and-a-half Robots cost less than three Robots).

Amateurs desiring to use an unmodified color TV as a display device can rig a simple oscillator/modulator circuit similar to those used with regular 400's, but modified for Quadrature modulation for color reproduction. Color picture generation can be accomplished by sequentially placing red, green and blue filters in front of an existing black-and-white camera, and loading the respective color memory before sequential color SSTV transmissions. Assuming one has a color Fast Scan camera, its output can be fed to a color display device and respective red, green and blue video acquired from that monitor's video amplifiers. Those signals could then be fed to the Fast Scan inputs of the color SSTV setup.

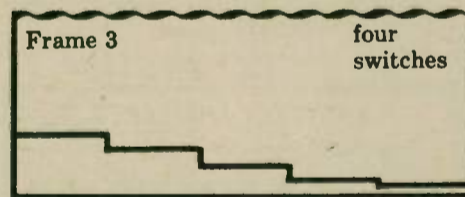
Color SSTV is becoming quite popular on the HF bands. Each Saturday's session of the SSTV net sees several color picture exchanges, and that situation is



two square waves
Red



four square waves
Green



eight square waves
Blue

Figure 1 — Color SSTV bar display/keyer devised by Sid Horne, VE3EGO, for designating specific memory of associated video. Bars appear at bottom of each SSTV picture, and are used for keying video into appropriate color memory.

also predominant many evenings on 20 meters. We've obviously moved into the era of color — and the results are spectacular.

Color reference generator for SSTV

Sid Horne, VE3EGO, recently devised a very useful item for color SSTV operations. This reference generator makes use of the gray scale time slot at the bottom of SSTV pictures for designating the appropriate color/memory of that frame's video. Sid will pass out copies of the unit's schematic at Dayton '81, and a full-blown article on the unit is forthcoming in one of the magazines. A sketch of VE3EGO's color SSTV bar display is shown in *Figure 1*. The few lines at a picture bottom are a readily-available location for the bar keyer; however, a more logical use might be obtained if the keyer was inserted at picture tops. This would permit designating a specific memory before video acquisition rather than afterwards. Your opinion on this is desired, so check into the Saturday SSTV Net and air your thoughts.

Israel Radio transmits SSTV views

The International Shortwave Broadcast Station, Israel Radio — under the influence of "DX Corner" emcee Ben Golson, 4Z4JS — conducted the first-ever international SSTV broadcast via AM commercial radio during late 1980. The results were extremely well received and quite gratifying, with numerous amateurs receiving the SSTV pictures. Then on 15 February 1981, a second SSTV broadcast took place with, again, good results. Ben has mentioned that another SSTV transmission may soon take place; however, past experience has shown that pre-warnings for published announcements may not be possible. We suggest you keep an ear on Ben's "DX Corner" for details (and maybe a surprise SSTV transmission consisting of views of Jerusalem). That program (and the occasional SSTV views) is transmitted on 7412 kHz and 9815 kHz Mondays at 0015 and 0215 GMT (that's Sunday evenings in the United States).



This SSTV ID was received from Israel Gavish, 4X4VB, on 14,230 kHz around 0200 GMT during early March 1981.

SSTV activity flourishing

You've probably noticed our video ranks are increasing at a noticeable rate. Both 20 and 10 meters are alive with SSTV almost all the time the band is open, and the array of new calls is dazzling.

I've noticed a rise in the number of 1 to 1 SSTV QSO's rather than old-fashioned video roundtables. Unfortunately, because roundtables provide a much higher viewing to transmitting ratio — and ultimately more pleasure in operating SSTV. I'm personally shy about joining "personal" (1 to 1) QSO's, as you probably are, but I also feel uncomfortable moving up frequency and calling my own video CQ.



Although slightly unfocused due to excitement of the occasion, this is an SSTV view of columnist Dave Ingram's new book *Secrets of Ham Radio DXing*. And you thought pictures of babies and birds were popular "talk items."

Maybe we can all pull together and encourage more "video roundtables" during evening SSTV activities, with 1 to 1 SSTV QSO's being conducted up frequency from popular calling frequencies (such as 14,230, 28,680, etc.). Ultimately, a calling/working SSTV bandplan/communications procedure which is beneficial to everyone could evolve. What's your opinion?

Closing thoughts

Throughout the months, I continue receiving inquiries concerning basic SSTV theory and the least expensive ways of getting into this unique communication frontier. My book *The Complete Handbook of SSTV* (TAB #859, available from TAB or Long's Electronics) should provide ample "getting started" information, plus numerous schematics for home constructors. An inexpensive and strictly "bare bones" SSTV receiving converter which can be used with an oscilloscope is described in the ARRL publication *Specialized Communications Techniques*. This adapter can be constructed for less than \$20. Used P7 monitors can also be found in hamfest swap circles — often at suprisingly low prices. Finally, two companies offer state-of-the-art digital scan converters which interface SSTV with FSTV extremely well. The extra expense of these units is offset by their performance and high used market value.

We'll have more details of these units in future columns. Meanwhile, check out summer hamfests for SSTV-related goodies and join the fun of our exciting video world. It will surely renew your enthusiasm for all Amateur Radio. Newcomers are also advised to spend time listening to on-air SSTV activities and discussions. The main frequencies to monitor are 14,230 kHz, 21,340 kHz, 28,680 kHz and 3840 kHz. Any and all active SSTVers will welcome your calls and/or inquiries. Two SSTV Nets are also at your service: the Saturday SSTV Net meets on 14,230 kHz at 1800 GMT, and the Thursday evening net meets on 14,230 kHz at 0100 Friday's — GMT.

Now let's hear from you. What have you been doing in FSTV or SSTV — what new ideas or circuits have you tried, what stations have you recently worked or what new items have you found useful? Have you seen any unusual or meaningful applications for Amateur Radio TV? Let's hear from you — and include photos! They'll be returned after publication. Time and space precluded discussing Fast Scan TV this month, so we'll have that info — along with some rather unusual applications — next month. Fair enough? We'll be "looking" for you on the SSTV frequencies. 73, Dave Ingram, K4TWJ, Eastwood Village #1201 South, Rt. 11, Box 499, Birmingham, AL 35210.

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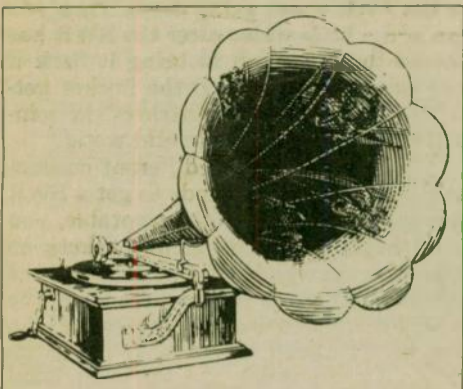
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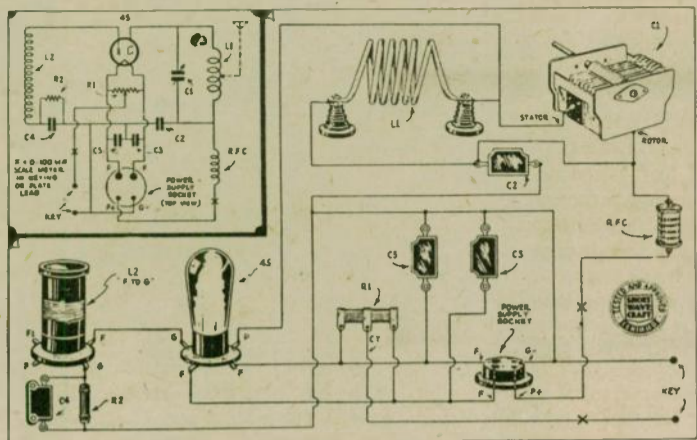
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Details of C.W. "Code" Transmitter

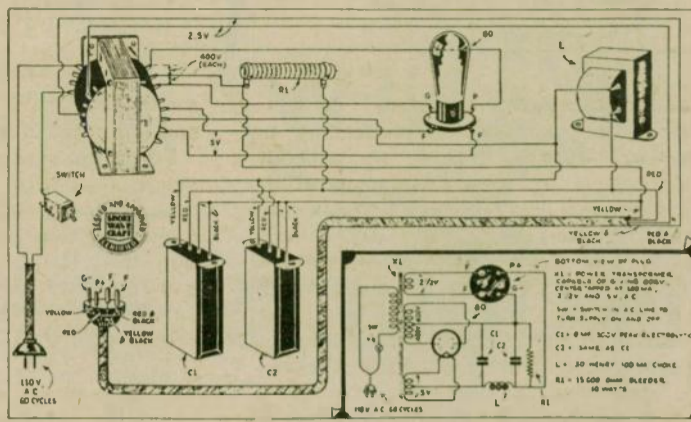


OLD-TIME RADIO

Carl C. Drumeller, W5JJ



The diagrams above show in schematic and also physical form how to wire the simple lay-out of parts comprising the C.W. transmitter for amateur use, as here described by Mr. Victor. A 45 or a smaller tube may be used as the oscillator.



The "power-supply" unit, using an 8150 tube for the rectifier, is shown in diagrammatic form above. It supplies 350 volts D.C. for the plate and 2 1/2 volts A.C. for the filament of the 45 transmitting tube.

The diagrams above show in schematic and also physical form how to wire the simple lay-out of parts comprising the CW transmitter for amateur use, as here described by

Mr. Victor. A 45 or a smaller tube may be used as the oscillator.

Rolling time machine back to 1933

Carl Drummeller, W5JJ

Through the magic of a copy of Short Wave Craft for September, 1933, let's relive that portion of electronic history. Let's see what radio constructors and radio operators were dreaming about, building and using.

Building was the chief interest. Builders who had Amateur Radio operator licenses constructed both transmitters and receivers. A much larger number of builders limited their efforts to receivers only. Many of these had been constructing receivers for MF, HF and "all-wave" listening since the early days of radio broadcasting. These builders were truly amateurs of radio construction and, to a lesser degree, radio theory — although quite often they never aspired to possess a license from the Federal Radio Commission to operate transmitting equipment.

Most receivers — whether home-built, kit assembled, or manufactured — were of simple design. With the rare exception of super-heterodyne circuits, nearly all featured a regenerative detector, usually of the "gridleak" variety. A few used a stage of radio-frequency amplification ahead of that detector — sometimes tuned, often untuned. Following the detector was a stage or two of audio-frequency amplification, with resistance coupling vying with transformer coupling as the favored mode. Plug-in coils made multi-band reception easy to achieve. The parts that could not be salvaged from obsolete broadcast receivers could be bought cheaply from numerous suppliers.

Now, let's delve into that issue of Short Wave Craft, starting with the editorial, written — of course — by Hugo Gernsback. Its main point is one that still sounds familiar in 1981: a cry for a "code-free" license for VHF operators!

Just one transmitter graced the pages of the September issue, as contracted to many receivers, it was a single-tube self-excited oscillator, using the then-popular "TNT" circuit. This was an off-shoot of the tuned-plate, tuned-grid circuit, with the substitution of an untuned coil for the grid "tank." This coil was resonant by virtue of its self-inductance at a frequency somewhere near the amateur frequency band in which the transmitter was to operate. Actual operating frequency was

determined by the plate tank. This tank was constructed so as to have a high Q. That is, the inductor was wound of large copper tubing so as to have low resistive loss, and the tuning capacitor had quite high capacitance. This combination, if coupled with rigid mechanical construction, gave reasonable frequency stability. If the grid coil was too far off the optimum inductance, the transmitter's note was very rough indeed!

The transmitter described could be built almost entirely from parts salvaged from old broadcast receivers. This factor, which it shared with most transmitters and receivers being built in those days, made its construction a popular project among those many chaps whose income ranged from zero to a pitiful few dollars a month. The wonder Amateur Radio made such a gain in numbers during the Depression!

In keeping with the zero-dollar concept, the transmitter used no meters, being "tuned" (if at all) by a flashlight bulb and a loop of wire. For those who wanted a "complete station," the construction of a "monitor" was described. Now, a monitor — as the term was used then — meant a very simple one-tube regenerative receiver totally enclosed in a tightly-shielded box. Being battery-operated, the "A" battery and "B" battery were in the box, too. With such a receiver, one could listen to one's own transmitter without overloading effects. Such listening was for two purposes: to check the "note" and to check the frequency. That frequency check was only approximate, as the monitor was calibrated by listening on a receiver to signals one presumed to be within the amateur band, then tuning the monitor so as to beat with the incoming signal. That spot was marked on the monitor's dial as "in the band" and used for tuning one's transmitter to an "in band" frequency.

The transmitter was versatile in that it could be used with a wide variety of tubes salvaged from BC receivers. With appropriate filament voltage, one could use UX-201A, UX-112A, UX-171A, UX-226, UX-245, UX-210, UX-250, and a host of others. Surprisingly, such a transmitter gave quite acceptable performance. As the coils were easily changed for band change, one "rig" could be (and often was) operated on 160, 80, 40 and 20 meters. Such DX as VK and ZL on 20 meters was not at all uncommon. If you didn't mind getting your lips burned by RF, you could loop-modulate it for voice transmission, too. Of course, the quality was not excellent... but then, who cared? (The article in Short Wave Craft made no mention of modulation capability.)

So much for 1933 transmitter state of art. Now, let's look at receivers.

No fewer than eight receivers were covered by full construction articles. Many others were described in short mention. These eight ranged from one-tube to five-tube projects, with most in the two- or three-tube category. With the sole exception of a three-tube superheterodyne, all employed a regenerative detector. A few used either a tuned or an untuned RF amplifier stage ahead of the regenerative detector. In either case, the chief benefit was the reduction of RF signal radiated by the detector when it was in an oscillating state. An untuned stage gave little if any gain and no increase in selectivity. Tuning the stage introduced a small amount of gain and some useful discrimination against strong out-of-band signals.


These receivers were "constructed" rather than "designed." That is, they were built "by guess and b'gosh." If they worked, an article was written on how that particular configuration excelled others. Actually, few introduced new concepts or techniques.

One circuit made use of the multi-element 6A7 tube, using the #4 grid as the input of a gridlead detector (regenerative) and the #1 grid as the input to an audio amplifier stage. The #2 grid served as the anode of this stage.

Most of the receiver circuits omitted power supplies, as some were to be powered by dry-cell batteries.

Several "adapters" were shown. One was for use with just the audio section of a BC receiver and had its own power supply instead of drawing from the BC receiver. The adapter covered the HF spectrum by means of plug-in coils. It was of conventional regenerative detector and one-stage AF amplifier configuration. An unusual feature was adjustable inductive coupling between the antenna and the grid tank circuit.

From the English magazine Wireless World, a super-regenerative VHF receiver circuit was reprinted. This was a "split-coil Hartley," an old standby, but unusual in that inductive feedback was used to generate the quench-frequency



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PRODUCTS

Micronta Autoranging Multimeter

Now available from Radio Shack is the new Micronta Autoranging LCD Digital Multimeter with 3½-digit liquid crystal display.

It is said to be Radio Shack's easiest-to-use tester, yet the digital multimeter's capabilities for sophisticated electronic testing include:

- DC volts: 0-1000 volts
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Once the function is selected with the four-position rotary switch, the tester automatically selects the appropriate range of measurement and polarity. An exclusive range-hold function freezes the scaling of the meter when desired. Indicators let the user know when the measurement goes out of range when the battery is low. All ranges are protected against overloads.

The Micronta digital multimeter — complete with test leads, instructions and carry handle that doubles as stand — is priced at \$99.95. It measures 6⅞" × 3⅞" × 1" with a 0.4" LCD display. The AC voltage measurements are accurate to approximately 15 kHz and all measurements are accurate to within one digit.

Requires a 9-volt battery or AC adapter.

The Micronta Autoranging LCD Digital Multimeter is available exclusively from participating Radio Shack stores and dealers, nationwide.

OLD-TIME RADIO

(continued from page 49)

oscillation.

Another receiver-related device was the VHF converter for use ahead of a BC receiver. This circuit and description, copied from a British magazine, *World Radio*, looks not unlike something built in the 1960s — almost modern.

In addition to receiver construction articles, there were other items of interest. For instance, the listing of the 29 U.S. television broadcasting stations active in 1933, and information on constructing a "bug" key (not a bad project for 1981).

The advertisements were a joy to behold. Large ones were for National, Hammarlund, E.H. Scott, and Midwest receivers. Lesser advertisements touted no fewer than 12 additional makes of receivers. And, of course, there were ads for small parts — something you never see in magazines (and few other places) these days.

The broadcast end was not neglected. Of chief interest was a good description of

the velocity microphone, a new item in the professional microphone field.

A reproduction of one page from the magazine has been reprinted here. It shows the circuit of the transmitter and its power supply. As many readers of *Short Wave Craft* did not have the ability to read schematic diagrams, building projects often showed pictorial equivalents.

The transmitter was supposed to be used with an off-center fed Hertz antenna, also known as the Windom. Its single-wire feeder is shown as directly tapped to the transmitter's series-fed output tank coil. This, of course, is a very dangerous practice!

A revisit to 1933 has been rewarding. Amateur Radio has changed greatly in the intervening years, but amateurs of radio communication and technology still like to build gadgets and try out new ideas. May they ever do this! □

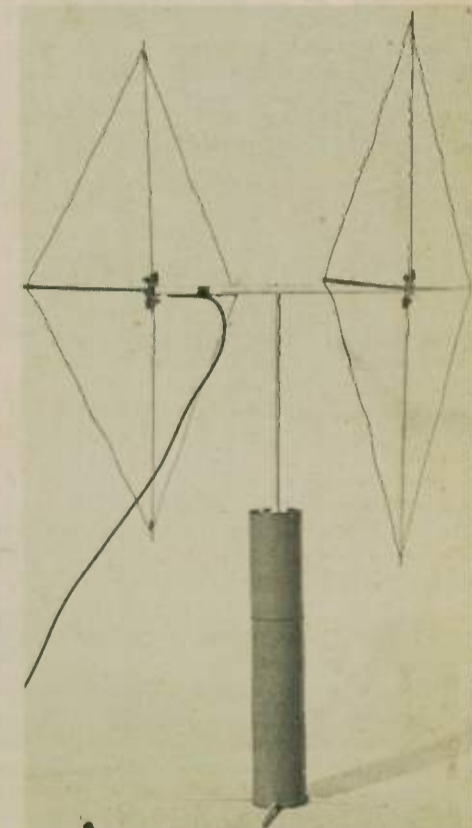


Portable 2-meter quad

A new collapsible antenna has been introduced by Palomar Engineers. It extends the range of low power 2-meter transceivers by providing the gain and front-to-back discrimination of a two-element quad. It is ideal for boating, backpacking, mountain-topping and other portable applications since it gives the gain of a linear amplifier, but does not require additional battery power.

The entire beam assembly is housed in an 18" carrying case that will fit in a suitcase. For use it unfolds to form a two-element full-size quad complete with stabilized mounting stand.

The portable 2-meter quad sells for \$67.50. For further information, write Palomar Engineers, 1520-G Industrial Avenue, Escondido, CA 92025.



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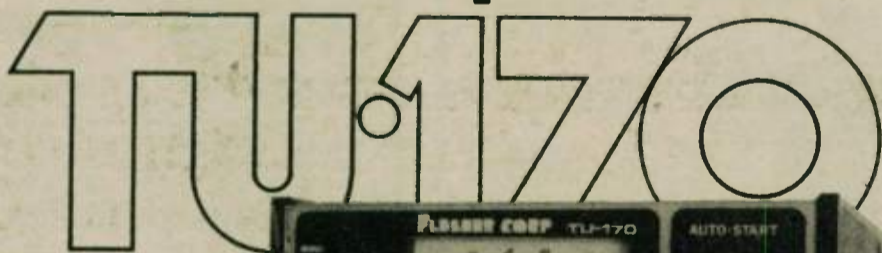
40-meter monobanders

KLM introduces two new monobanders for 40 meters. The two-element 7.2-2 and three-element 7.2-3 offer substantial gain and F/B coupled with modest size. Their design and performance characteristics are based on KLM's well-known four-element "Big Sticker" but require considerably less air space, and are useable with most standard ham rotators. Lossless linear-loading keeps element length to 46 feet and permits stacking within four feet of 20-meter beams.

The 7.2-2 sits on a 16-foot boom and weighs only 45 lbs. The 7.2-3 has a 32-foot boom, supported by stainless steel overhead guy cables, and weighs 70 lbs. Both employ the same materials and construction as all of KLM's full size monobanders: 6063-T832 aluminum alloy elements and boom (3" O.D. x .065" wall), Lexan insulators, and all stainless steel hardware (except U-bolts). Each is supplied with KLM's 1:1 4kW PEP ferrite balun.

For more information on these and other KLM antennas, contact: KLM, P.O. Box 816, Morgan Hill, CA 95037. □

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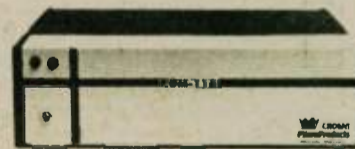
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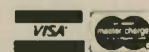
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Microprocessor station clock

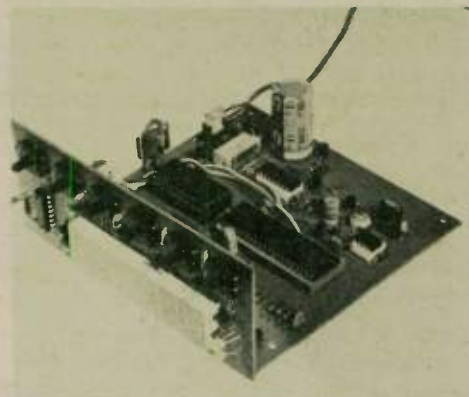
Now available is a new microprocessor station clock — the Zulu. The heart of the Zulu 3TZ is a microprocessor chip and memory that gives it greatly expanded capabilities. Besides the one local 12-hour time zone and two alternate 24-hour world time zones, the unit has a "reminder" I.D. timer that gives different tones at 8, 9 or 10-minute intervals. The I.D. is resettable and accurate to plus or minus .1 second.

Other features include: large, orange .6" LED readouts for easy readability; quartz crystal timebase battery backup; AC or DC operation on 12V or 117VAC with the wallplug transformer that is included.

Also useful is an appliance timer output that is synchronized with the local (12-hour) time that allows one on and one off shiftpoint per day. The manual explains how to connect the appliance timer output to a relay or triac (not included) to control any external device. The unit can be made to display remote

temperature using a silicon linear thermistor probe and a highly stable voltage-to-frequency circuit. The additional parts are available from Bullet for \$9.95.

Send orders to Bullet Electronics, P.O. Box 401244, Garland, TX 75040.



Available in either kit or assembled and tested form, the unit is the lowest priced multiple time zone unit to date.

HF transceiver

TEN-TEC's new ARGOSY solid-state transceiver reverses the upward Amateur Radio price spiral with an amateur net price (\$549) that is hundreds of dollars lower than you would expect for a high performance transceiver.

Dual Power is a unique feature — a switch converts the ARGOSY from a 10-watt QRP rig to a 100-watt SSB CW transceiver to give you power to stand up to the crowds in QRM and poor band conditions, and the fun and

challenge of QRP whenever you wish.

ARGOSY has the right receiver features, too: 80 through 10-meter coverage, including the new 30-meter band, with broad-band design for instant band change without receiver "peaking", typical sensitivity figure of 0.3uV for 10dB S+N/N; 2.5 kHz 4-pole crystal filter (plus optional 1.8 kHz, 500 Hz and 250 Hz filters); 9 MHz IF with 60dB rejection; ± 3 kHz offset tuning with "off" center position; built-in 50dB notch filter that's tunable from 200 Hz to 3.5 kHz; optional IF type 50dB noise blanker; built-in speaker with low distortion

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TRAC Electronics, Inc. announces the introduction of two unique products for the CW enthusiast.

The TRAC*ONE CW Processor, Model TE 424, is an advanced CW audio processor which receives the audio from any rig, passes it through a phased locked loop tone decoder, removing all QRN and QRM and reproduces a fully adjustable CW audio signal. Front-panel controls allow full adjustment of frequency, tone, delay and gain. The frequency control is adjustable from 300 Hz to 2500 Hz, a match for any rig. While the CW signal is being decoded, a front panel LED flashes in sync with the signal establishing that the unit is locked onto the audio from the rig. The TRAC*ONE contains a built-in speaker, a head-phone jack on the rear panel and is operated on a 9VDC battery or with an AC-Adapter. In the bypass position, the Model TE-424 TRAC*ONE may be left in line and the rig audio is passed through to the speaker.

The TRAC*ONE + Deluxe CMOS Keyer, Model TE-464, combines the full-featured TRAC*ONE with a deluxe state-of-the-art CMOS electronic



keyer. The keyer contains self-completing dots and dashes, dot and dash memory, iambic keying with any squeeze paddle, 5-50 wpm, speed, volume, tune and weight controls, sidetone and speaker, rear panel switch for use with a bug or straight key, quarter-inch jacks for keying and output. The Model TE-464 keys both grid block and solid state rigs, and operates on one 9VDC battery or a 9VDC AC-Adapter.

For more information on these products, write to TRAC Electronics, Inc., 1106 Rand Bldg., Buffalo, NY 14203.

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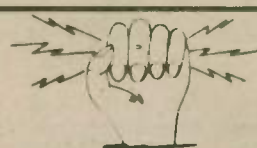
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audio (less than 2 percent THD).

The transmitter features tuning in nine 500 kHz segments (four segments for 10 meters) with approximately 40 kHz VFO overrun on each band edge; 100 percent duty cycle up to 20 minutes on all bands; three-function meter shows forward peak power or SWR on transmit and received signal strength; full break-in on CW plus PTT on SSB; built-in sidetone with adjustable tone and volume; ALC control on high power only, where needed; automatic side-band selection plus reverse; normal 12-14VDC operation plus AC operation with optional power supply.

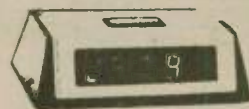
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SMA Plug for 141 Semi-rigid	\$3.98

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Indiana

The 35th Annual Wabash Valley Amateur Radio Association Hamfest, Vigo County Fairgrounds, Terre Haute, Indiana on 21 June 1981, one mile south of I-70 on U.S. 41. Overnight camping is available. Featured will be a free outdoor flea market, and covered flea market; \$2 for 12' x 12' space with some tables and AC available. XYL bingo, food and refreshments, giant shopping mall nearby. Advance sale tickets \$2 or 3/\$5; at gate \$3; children under 12 free. Valuable prizes will be given away.

Talk-in 25/85 and 52 simplex.

For information and tickets: SASE to WVARA Hamfest, P.O. Box 81, Terre Haute, IN 47808.

Maryland

The Baltimore Radio Amateur Television Society (BRATS) announces its upcoming annual Maryland Hamfest, to be held on Sunday, 26 July 1981. The hamfest will begin at 8:00 a.m. and will take place at the Howard County Fairgrounds in West Friendship, Maryland.

Top prizes, a giant flea market, indoor/outdoor exhibit areas, contests and refreshments will be available. Tickets will be \$3; XYLs and children under 12 free. Tailgating will be \$2; tables \$5.

Talk-in on 146.16/76, 147.63/03 and 146.52.

For more information and/or reservations, write: BRATS, P.O. Box 5915, Baltimore, MD 21208.

Michigan

The Straits Area Amateur Radio Club will hold its annual hamfest on 18 July 1981 at the Harbor Springs High School in Harbor Springs, Michigan. Come visit beautiful Harbor Springs in the northern lower peninsula on Lake Michigan.

Doors will open at 8:00 a.m. for persons who wish to set up a table space, for others at 9:00 a.m. Donations of \$2 will be accepted at the door. There will be one main door prize and smaller prizes hourly. Lunch will be served from 11:00-1:00, and refreshments will be available during the day.

For those of you who have self-contained RV's, the school parking lot is free to use for an overnight stay. Sorry we do not have any hook-ups, but many campgrounds in the area do.

Attention dealers: we have a lot of room so drop us a line and we will reserve a table for you.

The YL will love the shops in Harbor Springs and the gaslight district of Petoskey. On Sunday you could visit quaint Mackinaw Island. So come — spend the weekend and enjoy the relaxed climate along the shores of Lake Michigan.

Talk-in on .52/52 and 146.07/67

For information on lodging, contact: Harbor Springs Chamber of Commerce, 450 Bay, Harbor Springs, MI 49740, 616-526-2761; or, Petoskey Chamber of Commerce, 401 E. Mitchell, Petoskey, MI 49770, 616-347-4150.

For more details, contact: Mr. Bernie Slotnick, KB8RE, 630 Ann St., Harbor Springs, MI 49740, 616-526-5614.

Montana

The Great Falls Area Amateur Radio Club is sponsoring the Glacier-Waterton International Hamfest, to be held 17-19 July 1981, at Three Forks Campground, located between East and West Glacier on Highway 2.

This hamfest attracts amateurs from Canada and the Northwestern United States, and offers forums, technical presentations, exhibits and demonstrations covering all aspects of Amateur Radio. Activities are also available for XYLs and children, including horseback riding.

Pre-registration is \$6; \$7 after 7 July. Campsites are \$5 for full hookup, \$4 without.

For more information, contact: Glacier-Waterton Hamfest, Shirley Smith, Secretary, 1822-14th Avenue So., Great Falls, MT 59405. Telephone 1-406-452-1886.

New York

The Genesee Radio Amateurs, Inc. will present the first annual ARRL approved Batavia Hamfest at Alexander Firemen's Grounds, Route 98, Alexander, New York, (nine miles south of Batavia) on Sunday, 12 July from 7:00 a.m. to 6:00 p.m. Admission is \$2 advance, \$3

at gate and flea market \$1.

There will be many prizes, large exhibit area, programs, YL activities, contests and plenty of food. Overnight campers are welcome. Boat anchor auction at 4:30 p.m. and lots of fun for all.

Talk-in to W2RCX on 146.04/64, 144.71/5.31 and 52 simplex.

For more information and advance tickets, send SASE to GRAM, Inc., Box 572, Batavia, NY 14020.

New York

The Staten Island Amateur Radio Association will hold their flea market on 13 June from 9:00 a.m. to 4:00 p.m. on the grounds of All Saints Episcopal Church, Victory Blvd. and Wooley Ave. (Take interstate 278 to the Victory Blvd. exit, then one-half mile east on Victory Blvd.) No admission charge for buyers, \$3 for sellers (sellers provide own tables).

Talk-in on 146.28/88 and 146.52.

For further information, send an SASE to: George Rice, WA2AMJ, P.O. Box 495, Staten Island, NY 10314.

North Carolina

The Cary Amateur Radio Club will hold its 9th annual midsummer swapfest on Saturday, 18 July 1981, 9:00 a.m. to 3:00 p.m., at the Lion's Club Shelter, Cary, North Carolina.

There will be lots of buying, selling, bartering, haggling and visiting in the morning, followed by lunch, an open auction and prize drawings. Registration for drawings is \$3, but there is NEVER an admission or commission fee at this swapfest.

Talk-in: 30-80 miles — 146.28/88; 2-30 miles — 147.75/15; 0-2 miles — 146.52/52.

For more information, contact Cary Amateur Radio Club, P.O. Box 53, Cary, NC 27511.

Ohio

The Champaign Logan Radio Club, Inc. will hold its annual hamfest on Sunday, 14 June 1981 at a new, bigger and better location. It will be held at the Logan County Fairgrounds, South Main Street and Lake Avenue, Bellefontaine, Ohio.

Admission is \$1.50 advance and \$2 at the door; trunk and table sales \$3. Also, a bid table will be available this year. Door prizes.

Talk-in will be on 146.52 simplex and hi-point repeater.

For more information, contact John L. Wentz W8HFK, Box 102, West Liberty, OH 43357, or Paul F. Amerine WD8NEB, Box 185, West Mansfield, OH 43358.

Ohio

Father's Day — 21 June 1981 — will be a day the whole family can celebrate in Lancaster, Ohio. That's the day the Lancaster and Fairfield County Amateur Radio Club is sponsoring its annual family hamfest. The event will take place at the P&R Party Barn, four miles west of Lancaster, Ohio, off of Rte. 188.

The hamfest will last from 9:00 a.m. to 5:00 p.m., and will have something for everyone, including prizes, a hay ride for the kids, swimming, fishing, baseball, tennis, refreshments and an R.C. model aircraft demonstration.

Tables for flea market \$2; out of auto \$1. Advance tickets will be \$2; \$3 at the gate.

Talk-in on 147.63/03 or 52 simplex.

For more information or tickets, write or call: C. Ted Riley, WB8VOA, P.O. Box 3, Lancaster, OH 43130; 614-653-8222.

Ohio

The Northern Ohio Amateur Radio Society (NOARS) announces its 4th annual NOARSFEST, to be held on Saturday, 25 July 1981 at the Lorain County Fairgrounds, Wellington, Ohio.

Over 100 prizes will be given away — winners of the top 10 need not be present. Tickets are \$2.50 in advance, \$3 at the gate. Children under 12 free. Admission tickets will serve as prize drawing tickets. Additional tickets available for \$1 each. To order admission tickets, write: NOARSFEST, P.O. Box 354, Lorain, OH 44052.

Advance registration for indoor exhibit space — 8-foot tables, \$5 each — can be obtained by sending check to: George Morningstar, W8ANM, 198 Glenview Drive, Avon Lake, OH 44012. Phone 216-933-2841.

A huge black-topped flea market area will be available, as well as parking at \$1 per car space.

Plenty of free parking will also be provided. Other features include: large indoor exhibit hall, refreshments and 807s. Campers may park overnight Friday at no charge, but no hook-ups.

Mobile check-in: Call K8KRG on 146.52/52 MHz. Directions and information on 146.10/70 MHz.

Ohio

The 17th annual Wood County Ham-A-Rama is 19 July 1981 at the Bowling Green fairgrounds, Bowling Green, Ohio. Gates open at 10:00 a.m. with free admission and parking. Trunk-sale space and food also available. Prizes. K8TIH talk-in on 52. Tickets \$1.50 in advance, \$2 at the door.

Write to Wood County ARC, Eric Willman, 14118 Bishop Rd., Bowling Green, OH 43402. Advance table rental to dealers only, \$3 per table, payable in advance. Saturday set-up available. Send check for tables to: Bill Wilkins, 16220 Portage Rd., Bowling Green, OH 43402.

Oklahoma West Gulf Division ARRL Convention

The West Gulf Division ARRL Convention and famed "Ham Holiday" will be held 24-26 July at Oklahoma City's Myriad Convention Center in downtown Oklahoma City, Oklahoma, sponsored by the Central Oklahoma Radio Amateurs (CORA). Its program will include an ARRL Forum, technical talks on wind-power generation, microwaves and satellites, and other timely topics, plus a QCWA breakfast and Wouff Hong initiation. A full Ladies Program will feature a hobby lobby, microwave cooking and a fashion show.

Mr. Harry Dannals, president of ARRL will speak at a Saturday evening banquet. Drawings for the ICOM 260 pre-registration and TS-830S grand prizes, and many other prizes, will be at noon Sunday. A pre-registration fee of \$6 must be received before 17 July. After that it will be \$7. Mail registration to CORA, P.O. Box 20118, Oklahoma City, OK 73120.

An immense ground-level indoor exhibitor and swapfest area if available. Tables are free to non-commercial registrants. A large flexible suite of meeting rooms is reserved on the second floor. Access to the Sheraton Century Hotel across the street and an interesting under-the-street shopping area is provided from the spacious basement parking area of the Myriad. The Myriad is located amid downtown Oklahoma City, but is only a few minutes away from a variety of motels along I-35 and I-40.

Oklahoma City invites all amateurs to attend our biggest hamfest ever.

Pennsylvania

The Nittany Amateur Radio Club will hold its annual Mount Nittany Hamfest on Saturday, 11 July 1981, at the HRB-Singer, Inc., picnic grounds in State College, Pennsylvania.

There will be a flea market and auction, dealer displays and sales, door prizes — including a synthesized 2-meter handheld transceiver — and free parking. Refreshments and food will be available.

Also taking place will be the famous Central Pennsylvania Festival of the Arts on the Penn State University campus. Outdoor band concerts and an active artist's exposition will provide weekend entertainment for the entire family.

Advance registration and admission is \$2 with no charge for spouse and children; gate registration is \$3. Flea market space is \$3 in advance, \$5 on-site.

Talk-in from Interstate Rte. 80; major central Pennsylvania routes will be provided on .16/76 and .25/85, local directions on .52/52.

For further information write Mount Nittany Hamfest, NARC, Box 614, State College, PA 16801 or call Dave Buckwalter, N3BBH, at (814) 234-0759.

Tennessee

The Third Annual Oak Ridge Hamfest will be held 18-19 July in Oak Ridge, Tennessee. There will be technical forums, flea market, dealers, door prizes, QSO room and expanded programs

for the XYL's. Hours are from 9:00 a.m. to 5:00 p.m. Saturday the 18th and 9:00 a.m. to 3:00 p.m. Sunday the 19th.

Talk-in will be on 146.28-88 and 52 simplex with back-up on 147.72-12.

This event is sponsored by the Oak Ridge Amateur Radio Club. For further details contact ORARC, Hamfest Committee, P.O. Box 291, Oak Ridge, TN 37830. □



SMIRK Party

The 7th annual summer SMIRK Party will be held 19-21 June 1981, between the ARRL

VHF contest and Field Day. The contest begins at 7:00 p.m. CDST, Friday, and lasts till 7:00 p.m. CDST on Sunday. This will be an all 6-meter contest.

Scoring: SMIRK members = 2 points; non-members = 1 point. The multiplier is total number of states, provinces, prefectures (Japanese states), or other similar major political subdivisions, and the total number of countries worked. Multiply total number of SMIRKs worked by 2, add to the total number of non-SMIRKs, and multiply by total number of countries, states, provinces, prefectures, etc. worked.

No crossband contacts or any multi-operator contacts allowed. You MUST exchange SMIRK number and multiplier info.

Awards go to highest scoring operator in each country, state, province, prefecture, etc. with highest scoring operator getting the

trophy and other winners getting certificates. Three or more valid entries must be received from your own state, country, etc. *This means other testers in your area must turn in their scores for yours to count.* Exceptions to this rule: if there are only one or two members in a subdivision; if an operator has shown exceptional effort.

The fall 1980 contest form MUST be used and can be obtained from Don Abell, WB5SND, 6821 West Avenue, San Antonio, TX 78213; send SASE.

Send contest logs only (no check or dupe sheets required) to WB5SND at above QTH before 1 August 1981 postmark date. Remember to provide call, name, SMIRK number on contest log. Send SASE if you want log returned. □

SWOT QSO Party

SWOT (Side-Winders on Two) will be holding its 4th annual QSO party in July. The contest runs for one week, beginning at 0000 UTC 17 July and ending 2359 UTC 23 July. All licensed amateurs with operating privileges on 2 meters are eligible to participate.

The following information must be exchanged to qualify for contact credit: call sign; geographic location (U.S. use county and state or territory, others use equivalent); SWOT members include SWOT number.

Restrictions:

- Contacts must be made using CW or SSB mode.
- A station may be worked once on each mode for QSO score (i.e., portable and mobile stations may be counted from one geographic location only).
- Contacts must be made direct without the aid of satellites, repeaters or retransmissions of any kind. EME (Earth-Moon-Earth) contacts may be counted if they meet all requirements.
- All contacts must be made from one geographic location. Portable or mobile stations operating in more than one geographic location may submit from the location where they obtained the highest score.

Scoring:

- Total SWOT member QSOs (SWOT number received) multiplied by their geographic locations multiplied by two equal the SWOT member credit.
- Total non-SWOT member QSOs (no SWOT number received) multiplied by their geographic locations equal the non-SWOT member credit.
- Sum of credits from (a) and (b) above equal your final score.

Awards:

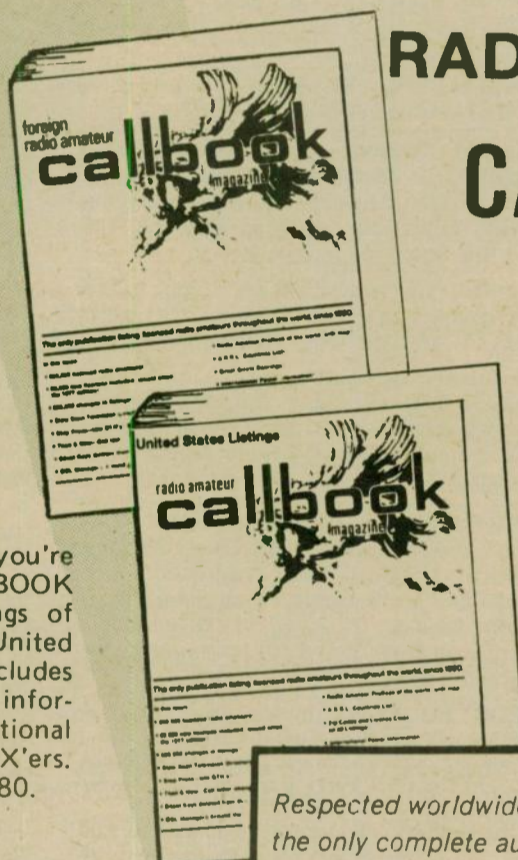
The person with the highest final score will receive the 1981 SWOT trophy. Certificates will be awarded to the highest scorer in each ARRL Section in which more than one entry is received. In the event of ties, the entry with the earliest postmark will be the winner. Winners will be announced in the SWOT Bulletin at the earliest possible date.

Logs should not be submitted unless requested. Send a summary postmarked not later than 21 August 1981 to: Dean Figgins, WA7EPU, P.O. Box 1141, Carefree, AZ 85377, reflecting information contained in the sample format enclosed. Summary sheets can be obtained from this same address. □

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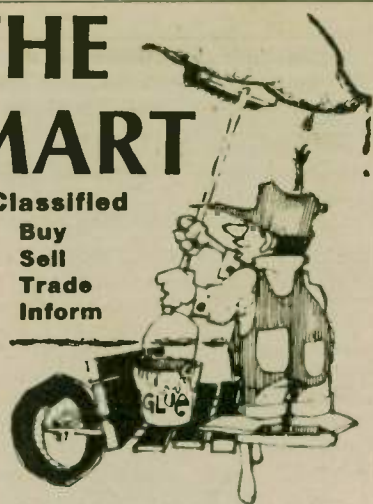
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