



cross talk

NEWS BULLETIN OF TRW AMATEUR RADIO CLUB

JUNE 1976



Sponsored by Systems Employee Association



WAC
WAS
DXCC
FD'71
FD'73
FD'75

TRW/ARC Saturday Morning Nets 10AM LT

Primary	7.280 MHz
Secondary	3.980 MHz
Novice	7.140 MHz
Simplex	147.510 MHz

CQ CQ

FIELD DAY ~~CONTEST~~

FIELD DAY -- 1976

As the headline above suggests, the TRW/ARC is this year departing from the gung-ho competitive format typical of our past Field Day exercises. Our tendency in the past has been to emphasize the contest aspects of FD, and to subordinate the fun potential of the event with the objective of placing high in the point score tally published in QST in November. We have achieved that objective pretty well: the TRW/ARC has been first in its class nationally three years out of the last five, and first in the state the other two years. For our highly talented, superbly coordinated FD Tiger Teams, it has become a bit like shooting fish in a barrel. It has also become something of a drag for those of our members who are not so highly contest oriented. (A TRW/ARC Field Day has occasionally been characterized as "World War II with the original cast"!!!!)

Early this year, Jack Clarke, WB6TCR, who is himself an annual FD Tiger, recognized and expressed the desire on the part of the membership to try something different. Jack is to be congratulated for perceiving this desire, for bucking the tendency on the part of some of the old hands to retain the more competitive FD format, and for putting together what looks like a fine Field Day for the TRW/ARC.

SEE YOU AT MIRALESTE HS JUNE 26/27! LEAVE YOUR COMBAT BOOTS AT HOME AND BRING YOUR SMILES!

THE JUNE MEETING

The June meeting will held on Wednesday, 23 June, earlier than usual, to avoid treading on the heels of Field Day. Jack Clarke, WB6TCR, will be our main speaker, and will disclose in detail his plan for FD activities. We may be able to induce Dave Gilmore, WB6IDJ, to show us some slides of Field Days of Yesteryear. R2-1055 at 1200, as always.

DOOR PRIZES: SWR/Power Meters (2), and ARRL Membershp

NOTES AND NOTICES

The Annual TRW/ARC Swapmeet and Auction picked a beautiful sunny California day to happen. The buyers and sellers hit the swapmeet area in a bunch promptly at 0900, and continued to drift in and out until about 1100. At this time Auctioneer Paul Weisz started to put the many Bicentennial radio items up for bid. After the auction, the folks faded away fairly quickly, and by 1300 the area was clear.

A lot of interesting gear changed hands - especially during the first two hours. As usual, the good stuff went fast, with several choice items snapped up before the swapmeet administrators could grab them up (hi). Thanks are due the many TRW/ARC members who pitched in and helped make the event a success. To Jim McWilliams W6RTG, who conceived and executed the plan. Those helping included Paul Weisz and his XYL Beverly, Neil Hudson, Bill Schrecengost, Frank Cartier, Herb Gleed, Bob Bains, Rendall McKechnie, and Gary Komatsu.

Librarian Jack Koho is up in arms, and is threatening to shut down the bookshelf magazine service operating from his office. Issues of Ham Radio, 73, and CQ for the last three months have disappeared without a trace or a signature on a sign-out sheet. Sure hope its not a club member who's walking off with them, but if it is, please bring them back, and sin no more.

The flap over California call sign auto plates has apparently been resolved in favor of the amateurcommunity, according to HR Report. Assemblyman Michael Wornum, author of the offending legislation, has not only agreed to elimination of ham plates from the "vanity" category, but had high praise for the Amateur Service. The Good Guys win again!

Your Activity Manager, Bill Dews, hopes you all saved the club calendar from April CROSSTALK, since there are several events still coming up that need chairmen (chairpersons? chairpeople? chairbeings? -the life of an editor is hard). On the agenda for the future, maybe, are a post-FD picnic and a T-hunt, and perhaps another major event to match Field Day. Think about it. There is no club shack work party scheduled for June, but remember that the Friday 0715 breakfast club still meets every week in the S cafeteria.

Treasurer's Report for May 1976

Balance on hand May 1, 1976: \$540.26

<u>Receipts</u>		<u>Expenses</u>	
New Member Dues	14.50	Postage	13.00
Dinner Meeting		QSL Orders	6.25
Reservations	195.50	Crosstalk Printing	32.14
Crosstalk Ad Sales	6.00	May Dinner Meeting	
1st Quarter 1976		Expenses	232.20
SEA Allotment	119.00	Refunds of Excess	
Swapmeet Sales	78.26	Dues Payment	2.25
Return of E. Brelsford		Swapmeet Expenses	29.33
Honorarium	25.00		<u>315.17</u>
	<u>438.26</u>		

Balance on hand, May 31, 1976: \$663.35

EXECUTIVE COMMITTEE REPORT

BY ED THORNLEY, W6RXD

The TRW/ARC Executive Committee met on 4 June 1976 in President Cartier's office during the noon hour. The following officers and staff were present: Cartier, Dews, Halligan, Thornley, Weisz and Clarke.

Business

1. Door Prizes It appears to the committee that monthly meeting attendance is enhanced by door prizes. As was agreed earlier this year, door prizes would be funded quarterly at the rate of \$ 50 per month. Halligan moved, Dews seconded a motion to continue this policy. After a brief discussion, a vote was taken and carried.
2. Dinner Meeting A brief review of the May Dinner meeting was held. It was noted that this was not one of our better turn-outs. No one specific reason seemed obvious, but such factors as time-of-year, menu and location were mentioned. As it turned out, all of those who attended had a fine time.
3. Field Day The balance of the meeting was devoted to a discussion of Field Day. Jack Clarke, WB6TCR, FD Chairman reviewed plans for the event which will be held at the Miraleste High School grounds on Palos Verdes Peninsula. June 26/27 are the days scheduled and as usual will be a 24-hour operation. Jack explained that the goal this year will be on participation by a maximum number of operators particularly those with less amateur experience, and a bit less emphasis on high scores.

A budget of \$ 85 was established for food and \$ 25 was allocated for BEVERages. Cartier reported that some food and supplies remained from last year's operation which will soften the blow on the current budget.

A discussion of special Tee shirts to be worn by team captains was held and the procurement of same will be investigated by Halligan.

Team Captains were scheduled for a tour (without special tee shirts) on Saturday 5 June to size up area and determine basic access and layout.

Halligan moved and Dews seconded a motion that the Club Treasury be tapped for an amount not to exceed \$ 200 to cover FD expenses which includes not only the food and drink mentioned above but other incidentals such as gas for the generator, possible rental of sanitary facility and other items.

4. June Meeting The June meeting is scheduled for the noon hour on 23 June (one week earlier than usual). FD Chairman Clarke will present the program which naturally will be on the subject of "Field Day '76".

FIELD DAY INFORMATION BULLETIN

1. The TRW/ARC will again participate in the ARRL National Field Day exercise. If you have not already signed up for this annual event, contact one of the FD Committee members listed below, or, as a last resort, just come on out to Miraleste High School. Follow the map on the facing page.
2. The Field Day Committee. Jack Clarke, WB6TCR, Chairman

2 Meters (Fone)	Wayne Hale, W6IZK
15/80 Meters SSB	Ed Thornley, W6RXD
20 Meters SSB	Bob Taylor, WA6BSE
40 Meters SSB	Frank Cartier, WA6RAY
15/80 Meters CW	Bob Hume, WA6AQF
20 Meters CW	Doug Heydon, WB6WDS
40 Meters CW	Paul Fisk, WB6UJX
Novice Ops	Dave Buker, WN6HEU
Satellite Ops	Ed Arnn, WA3FVG
Power Ops	Gary Komatsu, K6HPD
Food Ops	Lou Cartier
Logs	Ed Thornley, W6RXD
Publicity	Paul Weisz, K6YQ
3. Equipment setup will begin at 0900 local time, with 24 hours of on the air time scheduled to begin at 1200 noon. All electrical power will be cut 24 hours after start time, and after Sunday lunch for all hands, teardown will begin so we can all be home by mid-afternoon.
4. All meals are being coordinated by Lou Cartier. In order to reduce expenses, all are asked to cooperate in provided the requested food items. Meals and beverages will be provided for all active participants in Field Day.
5. If you are planning to spend the night, bring your own sleeping facilities. Bring extra chairs for shade areas.
6. Since we are at a new site, it is important for the future that we impress our hosts (the Palos Verdes School District) with our ability to leave the place as we found it. Have a good time, but please keep the place neat.
7. The club will be operating with our station call, W6TRW. The Novice station will use Dave Buker's call, WN6HEU. The club station license carries Advanced Class privileges, but each operator must use only the privileges afforded by his own license.
8. FCC regs require that you have your original license in your possession while you are operating. Bring it.
9. Official ARRL Field Day rules are in this package.
10. All contacts will be recorded in the club log sheets. The log sheets will be the record of the essential elements of each contact, and basic data on operation of the station. A fresh log sheet should be started each hour on the hour, to provide an easy means to tally contacts. Any log sheet from which data cannot be deciphered will be discarded, and its contacts not counted in our score.

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Field Day Rules

Take a little time out from your planning for Field Day *now* and read these rules. Next, send a large s.a.s.e. to ARRL Headquarters so you may obtain "dupe sheets" and a summary sheet for FD. Last year a number of clubs did not have the standard summary sheet and, as a result, left vital bits of information out of their entries. In addition, please note the mailing deadline for entries: August 2. Due to the tremendous number of FD entries and a tight *QST* deadline, that mailing deadline cannot be bent.

Cw contacts count double again this year, on a trial basis. A final recommendation will be made by the Contest Advisory Committee after the 1976 Field Day, based on *your* comments.

If you intend to use the Oscar satellites on Field Day, ask for a schedule of passes when you request entry forms. Good luck!

Rules

1) **Eligibility:** The Field Day is open competitively to all amateurs in the ARRL Field Organization (plus Yukon and N.W.T.). Foreign stations may be contacted for credit but are not eligible to compete.

2) **Object:** For portable and mobile stations, to work as many stations as possible. For home stations, to work as many portable and mobile stations as possible.

3) **Conditions of Entry:** Each entrant agrees to be bound by the intent as well as the provisions of these rules, the regulations of his licensing authority and the decisions of the ARRL Awards Committee.

4) **Entry Classifications:** Entries will be classified according to the number of transmitted signals simultaneously on the air at any one time during the FD period, followed by the designation of the nature of the individual or group participation. Once a transmitter makes a contact on a band, it must remain on that band for at least 15 minutes. During this 15-minute period, the transmitter is considered to be transmitting a signal, whether it is or not, for purposes of determining transmitter class. Class A: Club group (or non-club group with three or more licensed amateurs) set up specifically for operation in the FD and using portable identification. Such stations must be located in places which are not regular station locations and must use no equipment or facilities

installed for permanent station use, nor any structures installed permanently for FD use. Stations must be operated under one call (except when a Novice position is used, as provided by miscellaneous rule (c) and under control of a single licensee or trustee for each entry. All equipment (including antennas) must lie within a circle whose diameter must not exceed 1000 feet. All contacts must be made with transmitter(s) and receiver(s) operating from a power source independent of commercial mains. Entrants who, for any reason, operate a transmitter or receiver from commercial mains for one or more contacts, will be listed at the end of their class. Class B: Non-club stations set up and operated by not more than two licensed amateurs. Other provisions same as for Class A. Class C: Stations located in vehicles capable of operation while in motion and normally operated in this manner, including antenna. Class C stations may operate stationary, but no stationary equipment or facilities may be used. A Class C station may not be used as a station in any other class. The operator of a Class C station may also operate from another station during the FD period but scores for his mobile operations must be submitted separately. Class D: Stations operating from permanent or licensed station locations, not portable or mobile, using commercial power. Class E: As above, but using emergency power for transmitters and receivers.

5) **Field Day Period:** FD operation starts at 1800 UTC the fourth Saturday of June and lasts until 2100 UTC the following Sunday, a period of 27 hours. Class A and Class B entries who do not begin any setting-up operations until 1800 UTC on Saturday may operate the entire duration of the FD period. Others may operate no more than 24 consecutive hours; i.e., once FD operation has started it must cease 24 hours from that point.

6) **Bands:** Each phone and each cw segment is considered as a separate band. All voice contacts are equivalent and RTTY is counted as cw. A station may be worked once on each band. Cross-band contacts are not allowed. The use of more than one transmitter at the same time in a single band is prohibited, except that a Novice position may operate on any Novice band segment at any time. Contacts made by retransmitting either or both stations do not count for scoring purposes.

7) **Exchanges:** Stations in the U.S., possessions and Canada must exchange ARRL section (see page 8 in any *QST*) and signal report. Valid contacts with stations outside of a section consist of sending a signal report and section and receiving a signal report and country from the foreign station.

8) **Valid Contacts:** A valid contact is defined as a two-way exchange (see above) between stations. Class A, B or C stations may contact any station. Class D or E stations may contact any Class A, B or C station.

9) Miscellaneous Rules:

a. Operators participating in the FD may not, from any other station, contact for point credit the FD portable station of a group with which they participated. This is intended to outlaw any kind of manufactured contacts.

b. A station used to contact one or more FD stations may not subsequently be used under any other call during the FD period. This rule is intended to outlaw multiple contacts on the same band with the same station, using different calls. It is not, however, intended to prohibit the use of jointly-owned stations which are normally used under different calls by members of the same family.

c. Any Class A group whose entry classification is three or more non-Novice transmitters may also use one Novice operating position (to be set up and operated only by Novice Class licensees) without changing their basic entry classification. The Novice position must use a Novice call sign and must keep their own logs and check sheets. The Novice-position, QSO total may be added to the group QSO total before multiplying.

10) **Scoring:** Scores are based on the number of valid contact points times the multiplier corresponding to the highest power used at any time during the FD period, plus bonus points. Phone contacts count one point each, and cw contacts count two points each. Power multipliers. If all contacts are made using a dc input power of 10 watts or less AND if a power source other than commercial mains or motor-driven generator is used (e.g., batteries, solar cells, water-driven generators, etc.), multiply by 5. If any or all contacts are made using a dc input power of 200 watts or less, multiply by 2. Multiply by 1 if any or all contacts are made using a dc input power over 200 watts and up to 1000 watts. Over 1000 watts multiply by ZERO! Dc power on ssb

phone is considered to be half the peak envelope power. Batteries may be charged while in use for Class C entries only. For other classes batteries charged during the FD period must be charged from a power source independent of the commercial mains.

11) *Bonuses*: The following bonus points may be added to the score (after the multiplier is applied) to determine the final score. Only Class A and B stations are eligible for bonuses. Do not add bonuses to your final score — all applicable bonuses will be added at headquarters.

a. 100 points for 100% emergency power per transmitter classification. ALL equipment and facilities at the FD site must be operated from a source independent of the commercial mains.

b. If one or more contacts are made using equipment that is totally powered by a source of energy that is derived from "natural" power, such as wind, solar or water power, the FD group will get a 100 point bonus. Oil, coal, natural gas, nuclear fuels or any other fossil fuels or their derivatives are not allowed. The energy source must be described. Commercial electric mains or batteries may not be used for this bonus.

c. 50 points for public relations. Publicity must be obtained or a bona fide attempt to

obtain publicity must be made. Evidence must be submitted in the form of a clipping, a memo from a BC/TV station stating publicity was given or a copy of material sent to news media for publicity purposes.

d. 50 points for message origination. A message must be originated by the club president or other FD leader, addressed to the SCM or SEC, stating the club name (or non-club group), number of operators, field location and number of AREC members participating. The message must be transmitted during the FD period and a fully serviced copy of it must be included with the FD report. The message must be in standard ARRL message form as explained in *Operating an Amateur Radio Station*. The message must be correct in all respects or no credit will be given.

e. 5 points for each message received and relayed during the FD period, up to a maximum of 50 points. Copies of each message, properly serviced, must be included with the Field Day report.

f. 50 points can be earned by completing at least one QSO via the Oscar satellite during the FD period. The repeater provision of rule 6 is waived for Oscar QSOs as is the 15-minute provision of rule 4. An Oscar station does not count as an additional transmitter.

On the summary sheet show Oscar as a separate "band."

12) *Club Aggregate Mobile Score*: Entries under Class C may be combined to form an aggregate score for their club, having no connection with the club's portable entry, if any. Individual reports must include the club name. The club secretary or other designated club official must submit the club aggregate mobile score claim. Only bona fide members of a club operating in the club territory (175-mile radius from the club headquarters address) may contribute to this aggregate mobile score.

13) *Reporting*: Entries must be postmarked no later than August 2. The proper summary sheet, plus a list of stations worked on each band and appropriate proof(s) for bonuses constitute an entry. *An entry that does not include a check sheet or any other list of QSOs made will be classified as a check log.* A copy of your FD log is not required unless specifically later requested by ARRL. This does not, of course, relieve you of the responsibility of keeping a log as required by FCC/DOC. Send a stamped addressed envelope to ARRL Hq. for FD forms which include a summary sheet and a sample of suggested check sheet.

14) *Disqualifications*: See January, 1976, *QST*, p. 73. QST

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11. Dupe sheets will be provided for each operating band. The logger or operator should enter the call sign of each station worked in the appropriate column, so that the sheet can be scanned to see if a calling station has been worked before.

13. The game plan this year is very simple. We will be in Class 7A, with up to seven stations on the air all the time. Nobody will have to shut down for the sake of contesting, and everyone that wants to will have a chance to operate.

13. We plan to have a satellite terminal in operation at the site for extra points, and to show people what OSCAR can do.

14. During a Field Day contact/exchange, give the other station a signal report and our Los Angeles section, and in return, record the other station's call, his report to you, and his section.

15. If you have any questions..... ASK

TWO WAY RADIO AND YOU

Each month thousands of Americans are being licensed to carry on radio communications between themselves and others near and far. AMATEUR RADIO and CITIZENS BAND RADIO services offer you a choice of interesting contacts, ways to make new friends and to contribute in meaningful ways through public service and in times of emergency.

AMATEUR RADIO

A name identified with a worldwide fraternity of radio and electronic experimenters and operators licensed at different levels of proficiency and privileged to operate over a broad range of frequencies offering communications opportunities to most any spot on the globe.

Radio Amateurs ("Hams") are permitted to talk to other licensed amateurs most anywhere in the world. Important messages may also be passed to friends and relatives via long-range communications to other countries which permit third-party traffic.

Amateur short-range communications have become highly reliable through the use of hilltop radio repeaters strategically located to relay signals many miles. Amateur Radio enjoys one privilege not granted to all other services – the right to tune for a clear spot anywhere in a designated band rather than to be restricted to one of a set number of fixed channels. Imagine tuning in the South Pole, India, Soviet Central Asia or some remote island on short-wave bands and talking to another ham either in voice or using international code to overcome language barriers and improve reception conditions.

Picture yourself providing assistance in an emergency to a ship at sea or to a stranded motorist on a crowded freeway from within your own car or at home.

Consider the fun of experimenting with a transmitter or some transistorized gadget; building a receiver converter for the band you desire, erecting special antennas, devising control circuits for your operating room. You need not be a graduate in electronics to do this. You learn by following construction articles in radio publications and conversing with other local amateurs at the nearby radio club meeting and on the air.

As a licensed AMATEUR RADIO OPERATOR you can choose a wide range of frequencies from above the broadcast band to the speed of light to propagate your signal to the area you desire, local or distant – and you can run as much as 1,000 watts of power input to your transmitter when your signal needs it to reach its desired location.

Amateurs can use many different modes of transmission: Voice – AM, Single Sideband, CW (Continuous Wave – International Morse Code), FM, television, facsimile, teletype and others.

Any adult, boy, girl of ANY age can become an Amateur Radio Operator. Almost 300,000 amateurs are licensed in the U.S. Many are involved in one or more of the following activities:

DX Chasing – Contacting hams in as many different countries as possible and exchanging confirmations; keeping scheduled contacts and making lifelong friends over great distances.

CITIZENS BAND RADIO

The most rapidly expanding personal radio service in the world developed to meet the communications needs of small businessmen, individuals and families across the nation and expanded to fill a wide range of emergency, public service and personal needs of citizens everywhere. Recently expanded to include "hobby" usage, Citizens Band (CB) 23 channels link friends, relatives and strangers by radio for distances permitted up to 150 miles, wherever one travels throughout the U.S. and Canada. Users talk from base stations at home or office or from mobile vehicles on the highways. Mobile radio adds a feeling of safety and provides the convenience of radio-telephone to the CB operator. Convoys of recreational vehicles are able to communicate with each other. Truck drivers have made America aware of the convenience of two-way radio as they make use of the 23 CB channels to alert each other to fuel or rest stops and hazardous road conditions.

The Class D Citizens Band radio consists of 23 communications channels of which Channel 11 has been designated a "National Calling Channel" – one to monitor when awaiting a call from another CB operator before moving to a different channel to converse. Channel 9 is restricted to emergency and motorist-aid use only. In certain areas, Channel 9 is monitored up to 24 hours each day by volunteer organizations. Such service-oriented, emergency, volunteer groups include REACT (Radio Emergency Associated Citizen Teams); VAT (Volunteer Assistance Team); and ALERT (Affiliated League of Emergency Radio Teams). Such groups perform communications services for motorists, municipal and county governments and individuals in need of assistance. CB social clubs exist across the country. Some meet several times each year for "coffee breaks", "pot lucks" (suppers), and other social functions.

Scanners and Shortwave Listeners – In the early days of radio, shortwave listeners became fascinated with finding, identifying and listening to radio stations wherever they appeared on the bands. Similarly, today, interest in the world about us stimulates individuals to want to tune into the various frequencies allocated to police, sheriff, highway patrol, fire, ambulance, aircraft, Citizens Band and Radio Amateur. These services occupy different frequencies, some within the same band. One may monitor them through the use of a scanning receiver which can be set to "lock on" to any given channel as soon as it is in use, thereby permitting the listener to hear interesting messages – as long as one merely listens to them.

Many CB radio owners own Scanners to permit them to participate in public service work as a member of a team as outlined above. It is not necessary to be

AMATEUR RADIO
(concluded)

Traffic Handling - Sending and receiving non-commercial messages or providing 'phone patch' contacts between distant parties otherwise unable to talk with one another.

Emergency Communications - Participating in handling messages including health and welfare traffic during actual emergencies or in drills.

Contests - Sharpening one's operating skills by competing for awards for contacting as many stations as possible in a given period; working all States, continents, 100 countries, etc.

Experimenting and Constructing fascinating devices from kits or from original designs, alone or with others.

Satellite Communications - Contacting distant stations by way of OSCAR - Orbiting Satellite Carrying Amateur Radio.

Using Repeaters to contact other amateurs across the state or around the corner through use of handheld, mobile or fixed station radios via automatically retransmitted signals.

T Hunts - locating hidden transmitters with direction-finding equipment in the shortest elapsed time or distance in competition with others or in actual interference cases.

Amateur Radio Teletype, Television, Facsimile, Meteor scatter, Moonbounce, computers, etc.

Radio Clubs, Hamfests, Conventions - getting together with other members of the Amateur fraternity and sharing information, trading ideas and equipment, viewing new products.

CITIZENS BAND RADIO
(concluded)

licensed to own a "Scanner". However, most scanner owners are also interested enough to become licensed for the type of radio transmitting they wish to enjoy.

The CITIZENS RADIO SERVICE license is issued by the F.C.C. It permits those 18 years of age or older, or members of the family over 11 years of age, to use the radio. Most of the CB social functions are enjoyed by families as a whole. The Federal Communications Commission licenses Class D operation of transmitters on frequencies from 26.965 to 27.255 MHz ("low band") using the maximum power of 4 watts output on AM or 12 watts P. E. P. (Peak Envelope Power) on Single Sideband. The operator's antenna at his base station may be as high as 60 feet and he may communicate as far as 150 miles. Short range mobile communications normally consist of 5 to 50 mile distances. Atmospheric conditions often permit signals to be heard thousands of miles away but such contacts are neither dependable nor legal.

Equipment available to the CB operator costs from \$100 up. No technical knowledge is required to either purchase, license or operate CB radios. Licensing is a simple registration process costing \$4 for a 5 year term. Applications are currently pouring into F.C.C. offices at a rate of over 150,000 per month. Soon, all auto manufacturers will offer dash mounted CB radios as optional equipment on their cars. With hundreds of thousands of CB radios and operators licensed, in all likelihood the antenna you see on the vehicle you pass indicates the presence of Citizens Band radio. Other Citizens Band Service bands are available for business activities of the licensee or for the control of remote objects.

FLASH We have it on good authority that the FCC has made some more changes in the regs, to be effective 1 July. We understand that on that date, holders of the Novice license will be authorized to use 250 watts input power, and holders of the Technician license will be authorized Novice privileges in addition to those they now have (except for the 250 watt limitation in the Novice bands).

For Sale- Heathkit 25 inch color TV kit (untouched) Model GR2000 with internal digital clock. Brand new, unbuilt, untouched. Cost \$720, want \$600. Frank Halligan, W6RLN, 535-1090, 376-1029

TABLE I

1976 BICENTENNIAL CALL SIGN PREFIX EXCHANGE

EXISTING CALL SIGN PREFIXES	BICENTENNIAL CALL SIGN PREFIXES											
Call sign prefixes within contiguous U.S.	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL
WA	X											
WB		X										
W			X									
K				X								
WD					X							
WR						X						
WN											X	
Call sign prefixes outside contiguous U. S.												
KB6 (Baker, Canton, Enderbury, Howalnd)							AG2					
KC4AA-ZZ (Navassa)												AL4
KG6A-H (Guam)							AG6					
KH6 (Hawaii)								AH6				
KJ6 (Johnston)										AJ7		
KL7 (Alaska)												AL7
KM6 (Midway)								AH7				
KP4 (Puerto Rico)										AJ4		
KP6 (Palmyra, Jarvis)									AI6			
KS4 (Serrana, Roncador)								AH4				
KS6 (Samoa)								AH3				
KV4 (Virgin Islands)										AJ3		
KW6 (Wake)							AG7					
Special Novice call sign prefixes outside contiguous U.S.												
WB6 (Baker, etc.)							AG3					
WG6 (Guam)							AG5					
WH6 (Hawaii)								AH1				
WJ6 (Johnston)										AJ1		
WL7 (Alaska)												AL1
WM6 (Midway)								AH2				
WP4 (Puerto Rico)										AJ8		
WS6 (Samoa)								AH5				
WV4 (Virgin Islands)										AJ2		
WW6 (Wake)							AG1					