



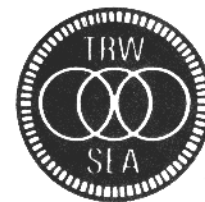
CROSSTALK

News Bulletin of the TRW Amateur Radio Club

MEMBER ARRL CLUB NO 1658 MEMBER LAACARC

W6TRW REPEATER: 145.320/- .6 (PL 2A)

UHF: 442.000 IN/447.000 OUT



CALENDAR FOR MARCH AND APRIL

Every	Friday	Club Breakfast-Bldg S cafeteria.	7:00 AM
Every	Wednesday	Emergency Communications Team Check in.	Noon
Mar 25	Saturday	TRW ARC Swapmeet NW corner Compton/Marine & Aviation.	8:00-11:00am
Mar 28	Tuesday	Club Meeting Bldg R10 Room 2785.	Noon
Apr 04	Tuesday	Executive Board Meeting at Pizza Hut Rosecrans & Oceangate.	5:30pm
Apr 15	Saturday	DEADLINE FOR CROSSTALK ARTICLES	Noon

AMSAT NEWS

THE RADIO AMATEUR SATELLITE CORPORATION (AMSAT) will deploy a communications Satellite from the Soviet space station Mir in late 1989 if the U.S. government approves an export license ("Homemade Satellites," Air & Space, December 1986/January 1987). The SatelliLife project, in which a 20-pound satellite will be lofted to provide an electronic mail service to physicians in remote locations around the world, was organized by Soviet space scientist Roald Sagdeev ("The Space Statesman," Air & Space, October/November 1988) and Harvard cardiologist Bernard Lown. AMSAT will construct the "microsat" at a small factory in Boulder, Colorado. AIR & SPACE DECEMBER 1988/JANUARY 1989

MICROSAT INFORMATION TO APPEAR SOON Starting in March there will be a "flood" of information which will be available to AMSAT members and OSCAR enthusiasts about the new series of Amateur Radio

Satellites which are currently scheduled to be launched late this summer aboard a ARIANE IV rocket. To be published later this month will be the new AMSAT-NA Satellite Journal; the featured article for this "first edition" will contain a substantial amount of data about the four MICROSATs which are presently being assembled by volunteers in the Boulder, CO area. This article is being authored by Courtney Duncan, N5BF, and Jan King, W3GEY. Also, the May issue of 73 Magazine will likewise contain an article by Courtney Duncan about the MICROSATs. The entire May issue of 73 Magazine will be devoted to OSCAR satellites and will include a wide range of topics concerning all aspects of assembling, building, operating, and maintaining a station for amateur radio satellite operation. In the May and June issue of QST, look for another series of articles about the MICROSATs which will be authored by Bob McGwier, N4HY, and Doug Loughmiller, KO5I. Each of these up

coming articles will cover different aspects of the MICROSATs from their inception, discussions about their "modular" Mechanical design, software, and information about how to operate the "store-and-forward" packet radio pair, that is, PACSAT/NA and PACSAT/LU. Also included will be a discussion about the WEBERSAT MICROSAT which will have the capability to send pictures back from space! And last but certainly not lest, the QST article will also include a discussion about the educational possibilities of DOVE (Digital Orbiting Voice Encoder). DOVE will contain a voice-synthesizer that will possess the capability to speak five different languages. DOVE is designed to be received on simple 2M receivers or inexpensive scanners. So be sure to start looking for these articles because they will contain "everything you ever wanted to know" about the MICROSATs. FROM AMSAT HEADQUARTERS

FROM THE PRESIDENT

by Rich Sauer, N6CIZ

The subject of this month's column is activism. Your activism. If you get uncomfortable when someone asks you to do something, don't read any further. I'm going to get on your case and put the ball in your court. Last month I wrote about everything that the Club has to offer to you. This month I'm going to ask what you have to offer the Club.

Take a look at the back page of this newsletter. You'll see that there are a couple of open positions - and they've been open for some time. Some of the names are "placeholders" who really didn't volunteer for their jobs but whose arms got twisted hard enough. Some of the names are real go getters. These people are the movers and shakers of the Club. As in any organization, 10% of the people do 90% of the work. I'd like to change that ratio a bit.

Think for moment what the TRW/ARC is. The Club is a group of people with a common interest. People. That's the key word. Without people who have a common interest which they want to see furthered, there would be no need for the TRW Amateur Radio Club, or any other group for that matter. There is a local Ham Radio club (that some of you probably belong to) that currently has no President, Vice President or Secretary. No one volunteered. This is a large club with many members. ARRL affiliated. Yet no one cares to stand up and be counted. As their newsletter (really a one page note) said, "If there is no

interest, there shouldn't be a club. Or, maybe there should be a club for only interested members." It's sad to see things die a slow death...

So let's get back to that key word - people. You! Yeah, I know that you're busy. There's work, family, home, TV. Besides, you don't know anybody in the Club. That Tempo S2 handheld hasn't worked right since 1983 so you can't work the 2 meter repeater. Besides, you haven't gotten around to putting a PL in it yet. And wasn't it just last August that you fired up the rig and exchanged signal reports with that W6 in Long Beach on 75 meters? Yeah, you sure would like to get more involved but, damn, your SO busy! And isn't it a shame that Bill or Joe or Bob don't do more? Yes. I know that you've got your excuses but let me remind you of your responsibilities.

No, not everyone is cut out to be President or Activities Manager but there is a place for everyone to pull their weight. Attend the meetings! That's a start. If a co-worker asks you about Ham Radio, encourage them! Buy them a copy of Gordon West's novice course. Come out and support club activities. The swapmeet needs you. Field Day needs you. Every one of those people whose name is on the back of this newsletter would welcome you with open arms if you'd call them up and ask, "What can I do to help?" Hey! It's YOUR Club! Why are you a member?

One last thing. Don't just apply the forgoing tirade to the TRW Amateur Radio Club. There are other, more

important, areas of life that can use your help. Your community, church groups, youth groups. Trust me. You can make a difference. You MUST make a difference.

It's not easy. Start volunteering and people will come out of the woodwork to give you more to do. In addition to working a (minimum) 8 hour day I probably spend at least an hour a day on TRW/ARC matters. Answering or making phone calls, meeting with people, organizing Club activities, writing stuff like this. Add more time for community service work and time spent with other clubs and organizations that I belong to. No, I'm not trying to pat myself on the back and prove that I'm a great guy. There are times when I get really fed up and want to chuck it all. Sometimes I refuse to answer my telephone or even turn on my radio. I admit that I'm sick of getting up at 5 am on a Saturday to work the swapmeet. But the bottom line is - the extra work, the pain, is worth it in the long run. Give it a try. Your time, your talents, your teamwork are needed.

OK. That's it. I hope it wasn't too painful. But if you felt a twinge of guilt, good.

FORGET ABOUT SOLAR MAX

THE SOLAR MAX SATELLITE, which has been studying the sun for 9 years, has been written off by NASA, much to the dismay of the scientific community ("Here's Looking at You, Sol," Air & Space October/November 1986). Due to a standing-room-only shuttle manifest and a budget crunch, the agency has announced that it cannot afford to retrieve or repair the satellite or boost it into a higher orbit. It is expected to reenter the atmosphere and disintegrate in 1990. Air & Space, February/March 1989.

TRW ARC CLUB NEWS

CLUB SPEAKERS; PAST, PRESENT AND FUTURE

First, I'd like to take this opportunity to thank the speakers for 1989. John Horvath gave a presentation at the January meeting on solid state UHF receivers, complete with data books and samples of UHF power transistors from Avantek. He demonstrated a 1 GHz oscillator he designed using common available low cost (under \$3) silicon chip the NE602N. The February speaker was Fred Heyn, Director of the ARRL Southwestern Division, who discussed the ARRL field organization and entertained questions & comments from the club members. As for this month, the speaker will be Bert Ayres, W6CL, who has been a ham since 1924. He will be giving a demonstration of a 1919 vintage spark gap transmitter from the QCWA museum, and discussing the early days of ham radio. After the talk, the audience will be invited to come up and operate spark for themselves. It promises to be quite a show! As for the future, we are always looking for interesting speakers for our monthly club meetings. In a club as large as ours, we seem to have members out there who are doing just about anything you can imagine in ham radio. So if you or someone you know would like to share your special interest with us, give me a call. I'm also interested in your ideas for topics, and your feedback on previous talks. 73's and CU Tuesday ... Jeff N9CZA

CLUB MEMBERS JOIN ARRL The following TRW/ARC club members have recently joined the ARRL: Ken Harrison, Bill Breshears, Andre Burghard. Thank you for your support. ARRL membership will allow you to get good radio equipment insurance at a low cost. Anyone wishing to join the

ARRL or get an insurance form please contact Bill Dews K6AWO, Membership Chairman.

CLUB BADGES The following Club Members have ordered badges: Swapmeet Manager, WA2KDL, N6QOD, WA6VPR, Jim, W6OGS.

2 METER REPEATER UPDATE It's the old story of hurry up and wait. After delivering our new radio to the 2-way service shop, we are in a waiting mode. Crystals have not yet arrived from International Crystal. They should arrive by the end of March. In the meantime, the DC power backup circuit has been installed and tested. We also need to locate a two meter isolator. Anyone having a lead on this should call Greg, N6RRY.

THE TRW/ARC EMERGENCY COMMUNICATIONS TEAM is still holding weekly check-ins every Wednesday at noon on the two meter repeater. Check in with the net control station by reporting your communications capability and location. The following hams checked in at noon on March 15: W6EKK Stan, W6GPE Jim, W6ZWS Randy, WA6TDU Jack, N6DZN Walt, W6TRW Jeff, K6AYK Dave, N6NVS Paul. We have no emergency coordinator can anyone pick up this position? Requirements are: Ham license, free time to attend EBM, check-ins on Wednesday at noon, coordination of TRW/ARC emergency program. Please call the club President and give him your name.

OSCAR STATION GOING STRONG If you are able to get into the TRW/ARC shack be sure to check out the OSCAR station there. It's a lot of fun. The club's satellite station is doing great, with many QSO's worked on OSCAR-13. It's possible to work

DX when conditions are right, and so far we have worked Australia, Japan, Ecuador, England, and Germany. We only need Africa to have a WAC on the satellite. Rich N6CIZ and Bill K6AWO "worked the bird" for the first time Rich said "My initial OSCAR contact was to a station in Rhode Island. I'm hooked!." Dews worked some real DX - Long Beach! Anyway, it was fun. If you'd like a demo sometime, contact Jeff N9CZA or Chris WA2KDL. The 1989 operating schedule for Oscar-13 is in the shack and will be posted on the BBS. For the month of April, Oscar-13 will be visible from LA mostly in the evenings. 73's and CU on the bird ... Jeff N9CZA

TRW/ARC & AMSAT Chris, WA2KDL, Rich, N6CIZ, and Jeff, N9CZA all aided the amateur satellite effort recently by helping to build the breadboard of the brains (the microprocessor controller and memory) of the new PacSat Microsat. Harold, NK6K and Skip, WB6YMH got the breadboard hardware and software working and our TRW/ARC members built the modem interfaces and packaged the hardware. The breadboard will be taken to Colorado Springs for integration with other spacecraft breadboards. When launched, the 9x9 inch satellites will operate as store-and-forward packet message systems. The Microsats, as they are called, are a joint effort of AMSAT and TAPR. TRW/ARC is proud to offer its assistance in developing this technology.

THE SOUTHERN CALIFORNIA VHF SOCIETY is holding monthly meetings at Baxter's Restaurant after

Continued on page 5

EXECUTIVE BOARD MEETING

by Don R W6SQF

The meeting was called to order at 5:30 PM by Rich, N6CIZ. Present were: Bill K6AWO, Rich N6CIZ, Jeff N9CZA, Jim Wike, John N6JLS, Frank WA6RAY, Dave N6PLV, Greg N6RRY, Bill N6MEL and Don W6SQF. Rich informed us that the club mail stop has been changed. All TRW internal mail should go to S/1161 instead of S/1435.

Someone reported that other clubs have a policy of disposing of the Ham Gear of silent keys, for the benefit of the Ham's family. It was announced that the TRWARC will do the same, should the need arise.

The major topic of the meeting was a discussion of the recent problems with parking at the swapmeet. The February swapmeet had problems with people parking in Handicap and Red zones. These people received tickets from the Manhattan Beach PD (at \$103 each). Also, some complaints were received from people working in buildings O-3 and O-4, that they had no place to park

when they came to work on Saturdays. Henceforth, our swapmeet staff will be expanded to include parking and traffic directors. The lots near the O buildings will be reserved for TRW employees only. Above all, don't park in restricted areas. Even though the lots are private property and it is Saturday, the laws will be enforced. Unless you are so civic minded that you wish to make a large contribution to the City of Manhattan Beach, obey the rules and follow the instructions of the swap meet team!!

Jeff announced that our speaker for the March meeting will be Bert Ayres, W6CL. Bert's topic will be Spark Gap Transmitter. Sounds like it should be charged with excitement. (sorry, I couldn't resist).

We have a new Activities Manager. Paul Lucas N6DMV was nominated and unanimously approved.

Bill Dews report we now have 203 paid up members for 1989.

Dave reports he made \$39.50 for the club by selling off our old magazines. He is dumping anything older than 10

years except for QST which he will keep back to 1968. If you would like to have some of these treasures, call Dave WA6ATK.

A member of the newly reactivated Garrett Radio Club attended our meeting and solicited our cooperation in joint ventures, such as the repeater and emergency communications. He reported that Garrett Corp. had anted up a small fortune to purchase ham gear and the club was in the process of building a club station. A committee will be formed to assemble a memo of cooperation for the clubs defining our mutual interests.

Finally, a discussion was held on the advisability of holding some club meetings after work. This would permit greater participation by some of our associate members. It was decided to try one in September. Please contact a board member with your feelings on this subject.

QUEEN MARY AMATEUR RADIO STATION W6RO

by Bill Schrecengost KE6LB

During the 1988 Christmas holiday season I visited the Queen Mary and looked in on the ship's radio station. It was in operation as Amateur Radio Station W6RO. A gentleman from the K6AA Radio club was on duty at the time and invited me to operate the HF or VHF Station. I worked a few stations on 40M and logged the contacts in

the log book. The stations worked were asked to send in their QSL cards to receive a W6RO (QUEEN MARY) QSL card. For operating the station I later received a "Guest Operator Certificate" in the mail. If any of you visit the Queen Mary, stop by the W6RO station and do some operating. Just remember to bring a copy of your Amateur radio license. It is interesting to note that our past TRW/ARC presi-

dent, Al Lee, operated the Queen Mary Radio Station during its final sea voyage from England to Long Beach. The several week voyage must be considered to be a once-in-a-lifetime experience. Al Presently lives in Tehachapi and maybe we can persuade him to tell us of an adventure or two from that trip in a future issue of CROSSTALK.

MORE TRW ARC CLUB NEWS

Continued from page 3

the TRW Swapmeet. These are planning meetings for the June VHF Contest. Everyone interested in joining forces with the best VHF contesters on the west coast is invited to attend. The idea is to BEAT THE EAST COAST BIG GUNS in this exciting upcoming contest. This year, the TRW contingent is planning a "roving" operation: going mobile and operating from multiple rare grid squares. Contact Bill Dews, K6AWO, for more information.

TRWARC 80 METER NET For those of you who have Low Band Equipment, TRWARC has an 80 Meter Net three evenings each week (MWF). The start time for the evening Net is 7:30 PM and the frequency is 3925 KHZ (+/- QRM). We typically have 6 to 10 people on the Net with varied, but interesting QSO's. Typical participants are: Bill Rodner (K6AWS), Fred Garret (N6CRW), Bill Dews (K6AWO), Charlie Clark (W6NWP), Paul Lukas (N6DMV), Lee Woodworth (AG6A), Gary Vennie (KG6JP), Paul Herbert (KG6CR), Tom Benson (KA6BKL), Frank Mullens (W6SCL), and myself Bill Schrecengost (KE6LB). Other Club Members are invited to join this Club Net which has been active for the past couple years. See you on 3925 KHz 73's Bill S.

TRW/ARC DX-PEDITION No news is forthcoming from the DX-pedition Committee. Apparently no Club members have shown any interest. What's the matter? Don't you guys want to spend some of the Club's money to operate from an exotic corner of the world? Contact Paul Lukas, N6DMV,

Dave Stockwell, WA6ATK, or Frank Cartier, WA6RAY for information.

SILENT KEY SURVIVORS' ASSISTANCE AVAILABLE The TRW Amateur Radio Club provides aid to survivors of Silent Key Amateur Radio operators in the disassembly and disposition of the SK's radio station and associated equipment. The committee is made up of two or more Club members, one of whom is, hopefully, known to the survivor. The Committee, when requested to do so, inventories the equipment, gives the survivor a copy of the inventory, prices it for sale, disassembles the station and disposes of it as requested by the survivor. Club members should make this information known to their family in order that the family will be aware of the Club's availability to assist. By letting the Club do it, the survivor is insured that the equipment will be disposed of in accordance with the wishes of the SK and the survivor and that there is no need to listen to the many helpful "friends" so quick to arrive on the scene. Contact any Executive Board Member for further information.

HAVE HAM GEAR FOR SALE? Advertise in the TRW/ARC CROSSTALK, our circulation is growing rapidly!

OTHER AMATEUR NEWS

NEW SWAPMEET Starting April 1, 1989 in Hanford CA. Call Rick WB6VFZ for more info at 209-945-2266 work, 209 583-9377 home.

FREE HAM RADIO CLASS BEGINS MARCH 6th. Do you know someone who wants to get a ham license? The Fullerton Radio club, in cooperation with the La Habra Heights

Emergency Preparedness Committee, is sponsoring a free Novice/Tech license class beginning March 6. Classes will meet Mondays from 7 to 10 PM at the La Habra Heights Community Center, 1245 North Hacienda Boulevard, La Habra Heights. The center is one half mile north of Whittier Boulevard on Hacienda Boulevard. There is no age limit. Successful students will pass their Tech test before Memorial Day. For more information, phone (714) 879-6895.

MARCH OF DIMES WALKAMERICA This year the March of Dimes WalkAmerica will be held on 29 April in the San Fernando Valley area. This is Major fund raiser for the MOD for the year and each year several HAMS are involved in the operation of the walk and this year more will be needed as the Walk(s) will be originating from multiple locations. If you can spare some time on Saturday, 29 Apr 89, to be of service to the March of Dimes your talents will be appreciated by all, from the Operations Staff to the walkers to the children who will benefit from the money raised by the event. Contact N6CDJ @KJ6EO BBS or K6IYK @K6IYK BBS to be among the people who help 'make good things happen'. Thanks for your support in this effort. Wally Foster N6CDJ

TRW ARC

SWAPMEET

SATURDAY, MARCH

25

Q & A

EDITORS NOTES In last months Q&A column there were a few comments & questions which were not credited. This was a mistake and should have read Name withheld by request or Anonymous. None of the entries, however, were written by the editor.

Although I have received some comments from readers we can always use more. Please send us input for the CROSSTALK: something you saw at the swapmeet, some ham gear you have for sale or want, maybe an good story from field day, an event announcement, some experiences on HF, UHF, VHF Packet, ATV, etc. even if it is just 2 sentences **WE WANT TO HEAR FROM YOU!!!**. Speaking of the CROSSTALK I could sure use some help to get the thing mailed out each month. What I need is 1,2 or even 3 people who would be willing to get together once a month and prepare the finished CROSSTALK's for mailing (folding, stapling, labeling, & stamping). Anyone interested in helping please contact myself or Rich Sauer ASAP. Scott N6AZY

DX-PEDITION ?????

I am very interested to find out more information on the DX-pedition. Has anyone reading this ever gone on one? Please write something in the CROSSTALK explaining some of the details regarding obtaining licensing, possible sponsoring, TRW/ARC involvement, transportation arrangements for people and equipment and any other formalities. I have been licensed for about 10 years and have always wanted to go on a DX-pedition to Easter Island. Since I am also a commercial photographer the trip would be satisfying in the visible as well as the radio frequency spectrum. Does anyone else have a place they have al-

ways wanted to go to on a DX-pedition? John MacLean N6QYG.

RELIGIOUS PROPAGANDA? In regards to "W1AW GONE RELIGIOUS?" (CROSSTALK Q&A FEB 1989) I was deeply offended by the reference to the Bible as "religious propaganda". Plain text for code practice, taken from the Bible and sent without comment is as much "religious propaganda" as plain text taken from the constitution of the United States could be called political propaganda. I think if I were putting pen to paper (or fingers to computer for that matter) I would be careful in using the word "propaganda" since according to Webster's New World Dictionary you are saying that the operators at W1AW intend to deceive or distort the truth. The use of the Bible as practice text is really a very practical thing. What would you prefer that the operators of the code practice station send? Is there another document, published in English, which is more universally available to all prospective hams? Certainly not QST, or any other ARRL publication! How about Scientific American? It is a fact that the Bible is the single most available book in European or Western culture. Is it possible that your concern for the use of the Bible text is that in reading it some of the text might "stick" to the readers? Worse things have happened; it may be that we should all get involved in this code practice! 73's Jim K7JAJ

TO THE EDITOR Congratulations on your new job as Editor. I enjoyed reading the issue of CROSSTALK and learning of all the club activities. 73's Jack MacLean K2IUK Franklin, NC

NO 10 MTR PACKET @ 29 MHz. I'm not sure what the intentions are of the individuals promoting use of 10-Meter FM Packet at 29 MHz. but please be aware, **THIS SUBJECT HAS BEEN RESEARCHED AND THE PRESENT RULES DO NOT ALLOW SUCH OPERATION.** 73's Jim K6IYK

LEGAL @ 29 MHz? I looked at the frequency chart in the January 1989 QST and packet radio is legal in the 28.0 - 28.3 Mhz band. Packet would not be legal at 29 Mhz. The ARRL suggests that RTTY subbands be used and the details are listed in the September 1987 QST. Why would packet be legal at 29 Mhz? Jeff Stewart

TNC RECOMMENDATIONS? I am looking for a TNC and would like recommendations from TNC owners. I am looking at the Heathkit Pocket Packet so that I can operate a portable packet station. Are there any drawbacks with the Pocket Packet? Are there any other portable packet TNC's? Any info would be appreciated. George Eldridge

HEATH POCKET PACKET INFO The March issue of 73 Magazine has a review of the Heath Pocket Packet unit. It's quite small and the author Velcroed his to the back of an HT. It looks like it has some nice capabilities (like a built-in bbs which operates without the need of an external computer or terminal). Anyway, check out 73 for the complete review. Rich Sauer, N6CIZ

NICAD ADVICE New nicad AA batteries usually used in HT's were found at the Price Club for \$1.10 each. They usually sell for \$1.80 to \$2.00 each. 73's George Lee

FIELD DAY PREPARATION

by Bill Schrecengost KE6LB

Its March 1989 and time to start planning for the June 89 ARRL Field-Day. Looking back at the 1988 Field-Day, in which we came in 4th Nationally in Class 7A, one thing stands out. We must sign on more CW operators & loggers, and man the 15 M-CW Station. We might very well have won Class 7A in 1988 if we had operated the 15 M CW Station, which was physically set up but lacking operators. CW operators please call me to sign up. You don't have to be fast on the key and you can be a logger if you so desire. Following the 1988 Field-Day, I wrote a past Field-Day critique in which I listed our strengths and weaknesses. Our primary weakness was shortage of personnel during the late night and Sunday

morning hours. Hopefully this year more of our 200 plus club members will get involved during this worthwhile event.

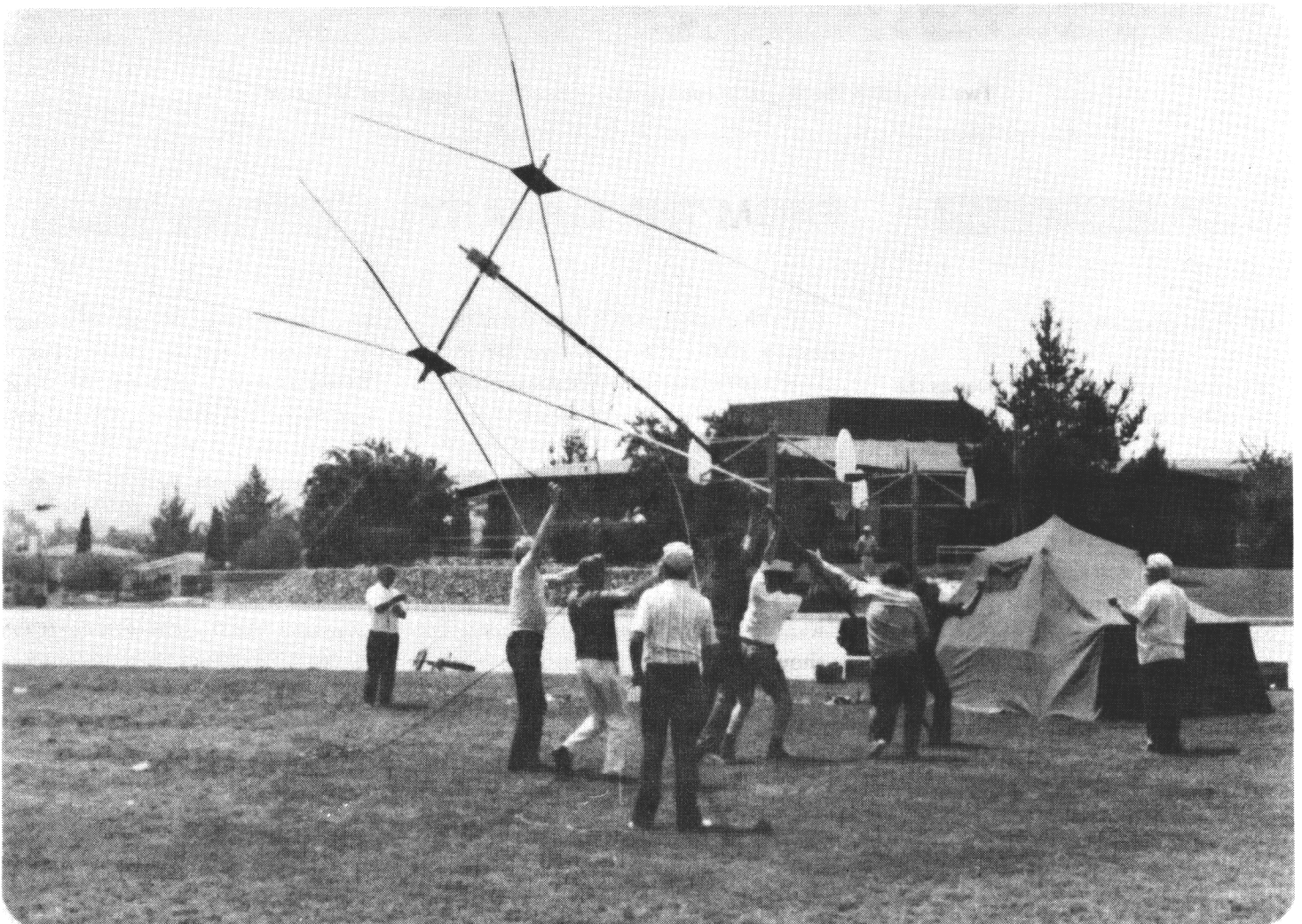
**We must sign on
more CW operators
and loggers**

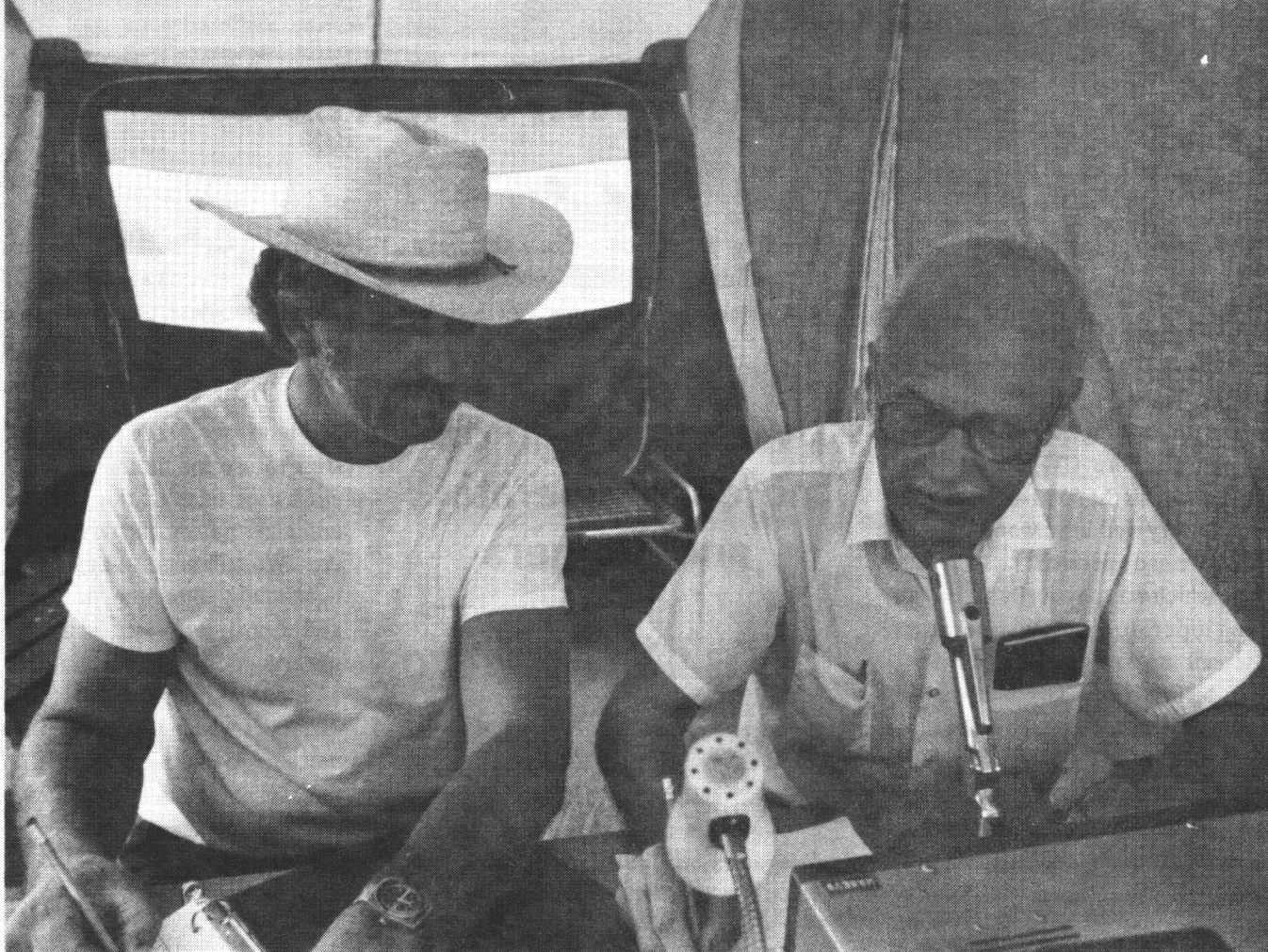
Call Bill @ 813-1670

Field-Day is primarily held each year to practice setting up emergency communications so we Amateur Radio Operators will be ready to help out when the big earthquake or other dis-

asters occur. With the increasing occurrence of small earthquakes that we are seeing of late, the big quake may not be that far off. Lets sharpen our Amateur Radio skills to be ready for it.

We have purchased all kinds of good stuff to use for field day such as dual clocks for each station , an MG Set, antenna rotators, Picnic table, antenna, etc. We still need to buy or acquire 2 lightweight aluminum tower sections and a push-up mast. If anyone has a tower section or push-up mast that they wish to sell, please contact me. Club members wishing to sign up for field-day should call me at 813-1670, or on the 145.32 repeater.





Two Field Day Participants (unknown by the editor) operate an SSB station

FROM THE LIBRARY

by D.R. Stockwell

Well I have officially taken over as the club librarian now. I will try to do a good job, but it will be hard to match what George Lee used to do. George's magazine statistics were used by other clubs in their newsletters. First the news: I have been asked to reduce the amount of magazines in the club shack. Currently our library is rather overstocked and there is no room to store new magazines and books. We have QST's and other magazines that date way back before 1989. For the February swapmeet, I loaded my car

full with magazines that were dated between 1960 - 1988. Except for the QST's (of which the last 10 years will be retained), the club has decided to keep the last 12 months of any given magazine. I managed to sell every magazine that I brought with me except for every issue of QST during 1963 & 1964. Next month I plan to bring out the rest of the magazines. So if you want to get a bargain, then be there. I should be in the same place again (H22 & H24).

I just received the CQ magazine February issue. There are several in-

teresting articles. The one that caught my attention was the one on Harold Bride (he was one of the MGY operators (the Titanic) when it sank. We also just received the ICOM, Kenwood, & YAESU technical newsletters. The Kenwood newsletter has an interesting article about the TS-940S on how to overcome a front-end overload problem. There is also an article that compares the TS-940S with the ICOM IC-761A. It seems to be a fair article as it gives the pros and cons for both radios.

TRW ARC SWAPMEET NOTES

by Frank Cartier, WA6RAY

We have a serious situation developing at the Swapmeets that must be immediately corrected if the TRW Radio Club Swapmeets are going to continue. The problem is that several people are not following the TRW parking lot rules at the various parking locations around the seller's lot. At the February Swapmeet, several cars were parked in handicapped spaces, red curb fire lane areas, and non-designated areas like the end of the striped parking rows, potentially restricting the passage of fire and other emergency equipment. Also, a few individuals were abusive and noncooperative with the TRW security officers who were attempting to enforce the parking rules. As a result, several people received parking tickets from the Manhattan Beach Police Department. Some of these fines are as high as \$103.00 for parking

in handicapped spaces. In addition to these violations of the parking laws, several TRW employees who had to work on Saturday morning had difficulty in finding a parking spot after the swapmeet had started. To correct these problems, we have implemented several corrective actions.

To eliminate the employee parking problem, one-half of the parking lot just north of the seller's lot will be reserved for the exclusive use of TRW employees reporting to work. TRW employee status will be determined by a TRW identification card or TRW badge. To eliminate the violation of parking rules, several radio club members will now be assigned to parking lot control and a flyer will be provided to each driver reminding him or her of the proper parking lot procedures. Vehicles violating posted and marked parking lot rules will be ticketed and/or towed

from the TRW property by the Manhattan Beach Police Department at considerable inconvenience and expense to the vehicle owner. Even though the swapmeet is held on private TRW property and is held on a weekend day, all traffic and parking laws must be observed. All swapmeet attendees, whether buyers or sellers, must be courteous and responsive to TRW security officers and radio club crew members at all times. All visitors are guests of TRW and the TRW Amateur Radio Club. If this situation does not show a significant improvement at future Swapmeets, then this could very well be the end of this great Southern California Amateur Radio event.

Please get this word around to your friends and acquaintances. This is a serious situation, and it must be corrected immediately. 73, Frank.

RAIN GUTTER ANTENNA EXPERIMENTS

by Rothan Maxwell, NU6U

After a bit of nudging by our President, I have decided to write up the results of my latest antenna experiment: the Apartment Rain Gutter Special. The antenna consists of 130 plus feet of rain gutter which was supplied by my apartment building, an eleven foot piece of number 14 copper wire, and fifty feet of RG58 coax cable. Electrically, the antenna should function as a long wire on 15 meters.

The rain gutter itself is of the standard aluminum variety, however, each joint is secured by large sheet metal screws

which have been covered by some sort of sealant to weatherproof them (lucky me). Furthermore, the rain gutter runs in a straight line (west to east) horizontal to the ground, and 30 feet above it. The eleven foot piece of wire helps to resonate the system on 15 meters, it is at the same height as the rain gutter, and also horizontal to the ground. An antenna tuner is used to tune out any SWR. Performance: The direction of maximum signal strength should be toward the east, however, I have made good contacts in the north and west directions as well. So far I have worked 15 states including Maine, Hawaii,

Georgia, and a tanker off the coast of Alaska. I have also been able to squeeze out three Canadian provinces and Japan. All contacts have been on CW. My RST's have ranged from 339 to 579 with 549 as an average.

Overall, I am very happy with this antenna. It's really more than I can ask under the circumstances. Number one, living in an apartment, number two, I'm a QRP operator and my HW8 (my only HF rig) does not run more than 1.5 watts on 15 meters. Hey! My fellow QRPers have trouble believing this too! And no, I really don't have land for sale in Florida!