



cross talk



NEWS BULLETIN OF TRW AMATEUR RADIO CLUB



Sponsored by Systems Employee Association

TRW/ARC Saturday Morning Nets 10AM LT

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

OCTOBER, 1977

EDITORIAL COMMENTS:

The Swap Meet is over. The Santa Maria convention is over, now we can settle down to our election and look forward to our annual dinner meeting in Nov. I would like to take this opportunity on behalf of the T. R. W. Radio Club, to thank Algie Lance for his interesting lecture on SWR at our last meeting. This was a welcome break from our usual entertainment type of meeting. Most members that I have talked to liked his approach to this subject and we are looking forward to his next lecture at this coming meeting.

As far as I am concerned the Santa Maria Convention was a howling success. The food was excellent service good, and the quantity more than sufficient. As was predicted the steaks were out of this world. I was only able to eat three.

The FCC was at the convention, giving exams. I heard through the grapevine that our own Vice Prez.... Mel Erb passed both the general and advanced tests. Congratulations Mel.....

We were also proud to hear that Steve Harris (Steve is one of our ace Field Day C. W. ops,) won first prize in the CW receiving test... 55 wpm solid and 80 wpm partial..... That's great Steve, no wonder our CW count is so good field day..

I hope that all of you have re-newed your membership by now. If not we are giving you one more chance..... see membership form this issue. I would also like to ask you to send in your candidate form that was in last issue. Here is your chance to get yourself or your favorite candidate in office.

73's Mac, K6RL.....

I am sorry to have to announce the passing of one of our fellow hams and Club member, Robert B. Mundt... WA6QXI. Our deepest sympathy to his family and friends.

*** MEETING REMINDER *** R2-1055
 Always the last Wednesday at noon
 Subject: SWR, Continued.
 Speaker: Algie Lance.

FROM OUR LIBRARIAN

All 73 and Ham Radio Magazines are missing from the library.
Please return all magazines that have been out over two weeks.

Jack Koho.....

FLIGHT TEST OF AMSAT/JAMSAT SATELLITE TRANSPONDER

The Radio Amateur Satellite Corporation (AMSAT) has obtained the cooperation of a number of amateur radio clubs up and down the state of California in flying the AMSAT-OSCAR-D 2-meter-to-70-centimeter (146 to 435 MHz) amateur radio satellite transponder for a test to provide amateurs throughout the state an opportunity to test their gear and to familiarize themselves with the techniques and procedures to be used in operating the transponder during its orbital phase as AMSAT-OSCAR-8, Mode J. The flight will take place December 3, 1977. An aircraft containing the transponder will fly a course starting from Van

Nuys Airport, near Los Angeles, to San Diego, Santa Barbara, San Francisco, Stockton, Fresno, Bakersfield, and back to Van Nuys.

A great many operators participated in similar earlier test flights, learning the ropes, so to speak, about operating through an amateur satellite transponder under closely similar conditions to those which would occur in orbit.

Activity through the transponder is encouraged during the December 3rd flight, and a commemorative QSL will be sent to all amateurs who send in a report of stations worked or heard. The aircraft call in flight will be AMSAT's, WA3NDS. During the flight, a liaison net will be maintained about 7230 kHz, using the call W6VIO.

The test flight is co-sponsored by the amateur radio clubs of Jet Propulsion Laboratory, Hughes, TRW, and Project Oscar, as well as several other California amateur organizations.

One major purpose of the flight is to assist radio amateurs to adjust their equipment for operation on the new satellite frequencies assigned to amateurs above 435 MHz. A secondary purpose is to determine the mutual interference potential between the satellite users and amateur fast-scan TV enthusiasts operating above 435 MHz. Launch of the A-O-D amateur radio communications satellite is scheduled for February 17, 1978.

Reports should be sent to Skip Reymann, W6PAJ, at P.O. Box 374, San Dimas, Calif. 91773. [Tnx K6PGX]

[Ed. Note: Lead appointments for the test flight on December 3, with a short shakedown flight on November 5, include the following JPLARC members:

Skip Reymann, W6PAJ, Project Manager
Booth Hartley, N6BH, Pilot
Maurice Piroumian, WA6OPB, Co-pilot
Dick Ulrich, K6KCY, Flight Engineer]

THE ABOVE INFO TAKEN FROM W6VIO CALLING.....NEWS LETTER.

POST SWAP MEET COMMENTS:

The Oct. 77 Ham Swap Meet and Auction is now history and was enjoyable to all who were involved in it. The sellers Particularly Mac McGrew(K6RL, went away with thier pockets bulging with money, and the buyers with new goodies for their ham shacks.

A highlight to the event was the Auction which was handled by Jack Clark (WB6TCR) and Gary Komatsu K6HPD.

Jack did a superjob of auctioneering and inventively came up with a late in the day Auction, where the Sellers entered items to be auctioned and then became the bidders. Many items that would not have been sold changed hands during this second auction. This will now be considered standard practice in future swap meets.

Gary Komatsu and spouse again ably operated the soft drink and coffee concession. They sold everything except the drink tub and ice.

The club netted \$82.00 from the Swap Meet/Auction.

Much of this came from the sale of equipment that was donated by generous members of the club.

Thanks to Al Lee W6KQI and Neal Hudson N6NW for selling entry tickets to incoming sellers.

In summary, while everyone involved had a good time, we were disappointed with the small turn out. A lot of advertising had been done, and a larger turnout was expected.

The next Meet will be held on a Saturday, probably in March 78, and if possible on the same day as the SEA sponsored regular swap meet. The location would be in the parking lot adjacent to the other swap meet lot.

BILL SCHRECK,
WA6EVS

FCC awards contract for amateur exam questions

The Commission has awarded a \$4,800 contract to the National Evaluation System, Inc. (NES) of Amherst, Mass., to develop 500 questions to be used as a basis for future Element 3 Amateur Radio operator license examinations.

Element 3 involves the written test for Technician and General Class Amateur licenses.

John B. Johnson, chief of the FCC's Personal Radio Division, said that "with the award of this contract, the Commission hopes to more closely realize its objective to produce Amateur license examinations of the highest quality and practical value, and to enhance the

standard of excellence which has traditionally characterized the Amateur Radio Service throughout its history."

AA calls

FCC has opened up the block of calls AA1AA through AA9ZZ for Extra Class licensees, to be assigned in districts where there are no longer any 1 x 2 calls available, currently only in the fourth and sixth call areas. This is effective 29 July 1977.

If needed in the future, prefixes in the block of AB through AL will be made available.

EXECUTIVE COMMITTEE MEETING - October 11, 1977 By Jim Hill, W6IVW

The TRW ARC Executive Committee meeting was called to order in room M2-1825 at 12:05 PM by the president. The following people were present: President Bill Dews, K6AWO, Vice President/Assistant Editor Mel Erb, K6GWC, Secretary Jim Hill, W6IVW, Trustee Paul Weisz, K6YQ, Activities Manager Gary Komatsu, K6HPD, Membership Chairman John Pettingell, WB6JIZ, Cross Talk Editor Mac McGrew, K6RL, Finance Chairman Phil Presser, WB6MXE, SEA Council Representative Ferd Newhoffer, and Swap Meet Chairman Bill Schrek, WA6EVS.

1. Membership Renewal

John Pettingell said that only two of the 96 full (company employee) members have renewed their club memberships as of the meeting date. He also questioned the need for company members to use the membership application form for renewals, since address and phone number changes are obtained another source. It was decided to eliminate the requirement to use the application form for each full member renewal. Full members who wish to change their ham information (license call or class, ARRL affiliation, etc.) should submit the application form. Associate members should continue to use the form.

A renewal reminder will be prepared and distributed. Prompt renewals are requested, as a two member club would certainly have difficulty getting adequate SEA funding!

2. SEA Budget Request and Station Equipment

Club allotments from SEA are no longer determined only as a function of the number of members; clubs requiring SEA funds must submit an itemized request. Gary Komatsu and Ferd Newhoffer discussed SEA philosophies and our request. Funds were requested to purchase new equipment, replace obsolete equipment, and for station maintenance. The reasons for using the station and suitable equipment for the station was discussed. The Lockheed ARC approach of providing top of the line equipment and replacing this equipment every few years was considered desirable, as it would give members the opportunity to use equipment they do not own. Action Item: Gary will prepare a list of suitable equipment to upgrade the station, and Paul will assist Gary. Prices will be included.

3. LAACARC Meeting

Jim volunteered to attend the next meeting (November 11), and Bill Dews agreed to remind Jim the previous day.

4. Resignations

Phil Presser submitted his resignation from the Financial Chairman position, as work obligations do not allow him sufficient time to do an adequate job. Many thanks for your help, Phil! Though not announced at the meeting, Jack said that he did not wish to be considered the librarian, as there has been no work since the club library was moved to the building S library. Jack's title is being changed to ARC Mail, as he presently picks up the mail from the club box (S-1435). Frank Halligan said he cannot be in charge of the membership roster, as the constitution states the Secretary has this responsibility. He will continue to assist the Secretary by handling the data processing effort.

5. Swap Meet

Possible reasons for the poor attendance at the last swap meet were discussed. The following changes will be made: The space fee will be decreased to \$1.00, and an effort will be made to have the next swap meet at the same time as a SEA swap meet. Bill and Gary will contact SEA to determine if a simultaneous swap meet is acceptable. The last swap meet was a success, with a \$82.15 net profit. Thanks to Jack Clark for his excellent job as auctioneer!

6. RACES

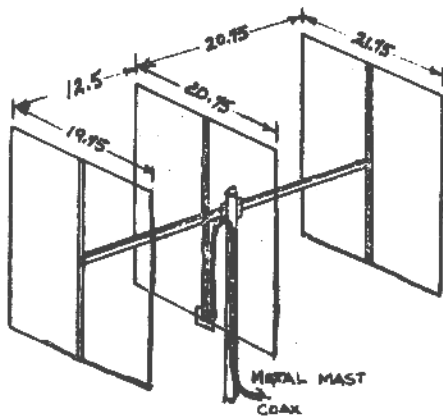
The RACES 147.075-147.675 repeater pair is not being used, and possible club use was discussed.

7. Nominating Committee

Paul Weisz discussed efforts in selecting a new slate of officers. Club response has been underwhelming.

Looking for improved signal strength for a minimal price? The antenna described here seems to fit the bill. It was built in one afternoon, and exhibits surprising performance.

Previous use of a 4-element Yagi at 27 feet elevation didn't allow access of the



TARS 75/15 repeater or the Pasadena 34/94 machine. Although the 19/79 system in Baytown could be operated, it was noisy.

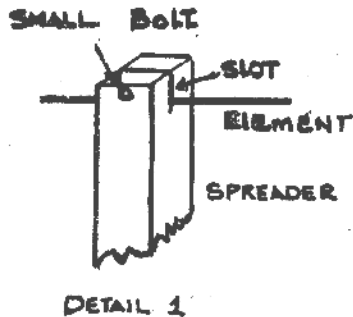
Subsequent tests with the quad at about 30 feet showed good communication with 34/94 and 19/79. (75/15 was off-the-air.) SWR measured on the ground was about 3:1; when raised to the 30 foot level, it was about 1.3:1.

With more time spent and emphasis placed on good workmanship, the antenna should perform even better. Try it: you'll like it! It's a great little antenna that is fun to work with.

The 3-element quad antenna is built on a boom with spreaders made of 1" x 1" wood. The loops are made of aluminum clothes line wire formed into a square configuration. The clothes line wire is attached to the top of the wooden spreaders by slotting the spreader as shown in detail 1.

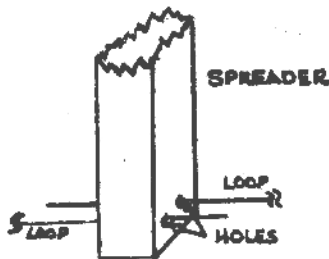
A three-element 2-meter quad for \$1.75?

Mike Tanner, WB5NLF



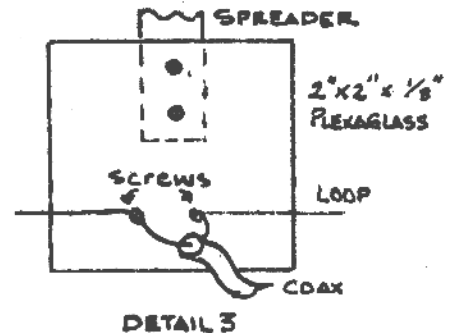
DETAIL 1

The bottom of the director and reflector loops are attached to the spreader by inserting both ends of the loop wire through adjacent holes in the spreader. (See detail 2.)



DETAIL 2

Detail 3 shows the bottom attachment of the driven element. The feedline attachment. The spreaders should be cut about one inch longer than the loop dimensions to accommodate the attachment slots and holes.



DETAIL 3

Tuning the antenna can be accomplished by placing the antenna "in-the-clear" and setting up a field strength measurement with an RF meter or receiver located a reasonable distance away. Tune the director and reflector by

Workradio, September 1977

sliding the loop wire in and out of the bottom spreader holes to acquire maximum forward field strength. Move the total beam assembly back and forth relative to the metal mast for minimum VSWR.

— Hamtides, Tidlands, ARS