CROSSTALK

News Bulletin of the TRW Amateur Radio Club

Member, American Radio Relay League

JANUARY 1986

** FD'71 ** FD'73 ** FD'75 ** FD'76 ** WAS ** WAC **
Garrett/W6TRW Repeater: 145.32/-.600(2A-PL) -- UHF: 442.000in/447.000out

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CALENDAR FOR JANUARY AND FEBRUARY

Saturday	Jan 25, 8-11am	Swapmeet, Don't forget the new hours for sellers! Lot opens at 7:00am - no earlier! Northwest corner of Aviation and Compton/Marine behind the Standard station.
Tuesday	Jan 28, noon	Club Meeting, R4/1041. Speaker will be Mike Henderson, U.S. Sales Manager for Yaesu. Lots of good info on new equipment and HANDOUTS too!! See you there!!
Tuesday	Feb 11, after work	Executive Board Meeting. All members are welcome! At Shakey's, Manhattan Beach, 2000 N. Sepulveda Blvd., just south of Marine Ave.
Friday	Feb 14, all day	Valentine's Day! Got your eye on a new piece of equipment? Today is the day to show the XYL how much you want it! And how much you appreciate her letting you operate!
Saturday	Feb 22, 8-11am	Swapmeet
Tuesday	Feb 25, noon	Club Meeting, R4/1041.

Easter comes early this year and so does St. Patrick's Day - March 14th! Observance at Torrance Shakey's FREE DRINKS!

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Amateur Radio License Examinations   G.L.A.A.R.G.

The Greater Los Angeles Amateur Radio Group is a not for profit organization dedicated to the administration of amateur radio license examinations at no charge to the examinee. Examination sessions are currently scheduled as follows:

Date	Time	Place in California	Phone for Info
Feb 1	0830	Van Nuys	(818) 762 5095
Feb 15	0900	Santa Monica	(213) 475 0383
Mar 1	0830	Van Nuys	(818) 762 5095
Mar 1	0900	Visalia	(209) 733 3109
Mar 8	0900	Victorville	(619) 244 6080
Mar 8	0900	Vandenberg AFB	(805) 929 3710
Mar 8	0900	Palm Springs	(619) 347 4294
Mar 15	0900	Rancho Palos Verdes	(213) 374 7176
Mar 15	0900	Santa Monica	(213) 475 0383
Apr 5	0830	Van Nuys	(818) 762 5095
May 3	0830	Van Nuys	(818) 762 5095
May 7	1900	West Covina	(714) 622 8315
May 10	0900	Victorville	(619) 244 6080
May 10	0900	Vandenberg AFB	(805) 929 3710
May 10	0900	Palm Springs	(619) 347 4294
May 17	0900	Rancho Palos Verdes	(213) 374 7176
Jun 7	0830	Van Nuys	(818) 762 5095
Jun 7	0900	Visalia	(209) 733 3109
Jul 5	0830	Van Nuys	(818) 762 5095
Jul 12	0900	Victorville	(619) 244 6080
Jul 12	0900	Vandenberg AFB	(805) 929 3710
Jul 12	0900	Palm Springs	(619) 347 4294

From the President   Chris Wachs, WA2KDL

Many of the Club members are operating new and exciting modes. Packet radio is sweeping the Club. Every week another TRW ARC member joins the ranks of Packet Radio. Thanks to Jim Cox the Two Meter repeater is working the best it has in years. Our new battery back-up provides an excellent system in the event of an emergency.

1986 promises to be an active year for the Club. It has already seen participation in the January VHF contest. I heard many familiar stations. The Club standing should top last year's results. This June the Club is planning to head to the high ground of L.A. for the June VHF contest.

One of the most exciting new aspects of the Club is its "High Tech" group. This group of TRW Amateurs will work on many new high tech projects for the Club. The first project tackled by this group may be a VHF to HF gateway for Packet Radio.

1986 also looks like another great year for the Swapmeet. Our reputation continues to grow.

I would like to invite any member of the Club to participate in the Executive Board Meeting. The meetings are held on the second Tuesday of every month. This is a good way to keep your finger on the pulse of the Club and provide your inputs. I'm looking forward to helping you make this the Club's best year ever!

Executives are people who have their names printed on company letterheads because no one can read their signatures.

Tidbits from the Jolly Little S...!

A Happy New Year to you all! I hope that your holiday was better than mine. Between the wife and I coming down with influenza and then bronchitis, it was not the best Christmas we have had. Anyway, this year is already looking better.

Two very important items must be touched upon first. As of January 1, 1986 thr FCC will no longer accept old 610 forms for renew or upgrade. In addition, you can no longer use photocopied forms even if they are the latest version. You must send in the printed form on the goldenrod colored paper. Using any other type of form will only delay your renewal or upgrade. All VE's are aware of this and are ordering the forms from the FCC so that when you get tested you will fill out the correct form.

Second, the State of California now has a seat belt law. Enforcement of the law is up to the discretion of the city you are driving in and ranges from being given a warning if you are stopped for an infraction and are not wearing your belt, to being stopped and cited on the spot. The city that is getting tough is Glendale. Sounds like its time to get in the habit and Buckle Up! The TRW Amateur Radio Club has been getting some really good national press recently. In the January 1986 issue of QST the TRW/ARC gets the nod twice. First, those intrepid contesters, Chris Wachs, WA2KDL, Bill Dews, K6AWO, Frank Cartier, WA6RAY, Mike Ramirez, W6YLZ and Dave Hassall, WA5DJJ put the TRW/ARC on the top of the heap in the ARRL September VHF QSO Party. Not only did they win the Santa Barbara Section (they operated from atop Mt. Pinos) but they also were the Southwestern Division champs! To top that off they were the highest scoring 6 Area station, beating the next station by almost 2000 points (only 9 more QSOs) and the other station was working 5 bands, W6TRW was working 4! Absolutely fantastic job guys!! My hat is off to all of you!!

Also in the January 1986 issue of QST is a report that due to a $3000 contribution from the Southwestern Division Hamcon that was held at the Queen Mary last summer, the Goldwater Scholarship has gone over the top of its $50,000 goal. We were mentioned as one of the sponsoring clubs. A fine job was done by Paul Weisz, K6YQ, and al those that helped out at the convention! In the December 1985 issue of QST, in the Technical Correspondence section, Training Chairman Paul Wisiolek, K1TKL, got a letter printed suggesting a method of sorting files, like QSO call signs, more rapidly by using the Shell-Metzner sort routine and using batch files and a RAM disk to speed things up. Paul warns that once you show yourself to be knowledgable, you run the risk of being deluged with questions from others who you may not be able to help. It can also eat up a lot of your time!! Frank Mullen, W6SCL, wrote a nice letter with his membership renewal and it had an interesting note about Packet Radio. Frank is a retired member who lives up around Monterey and he said that during the fires up there last year the California Department of Forestry (CDF) used hams for communications. The CDF has a form that is used by the fire captains as a tool to get the most needed information transmitted as quickly as possible. The hams used Packet and just transmitted the information that went into the blanks on the form. At the receiver site a blank form was put into the printer and all the data appeared where it was supposed to. Fire Captains were delighted with the information and the CDF was quite pleased with the speed, efficiency, accuracy and convenience provided by the Ham Packet Radio system. By the way, for those of you who rarely look at the Crosstalk here are a few facts for you to mull over. For an inside mailing it costs the club about 25 cents per copy per month to print the newsletter. This does not include the 8 to 10 hours I spend on the typing and running around I do. So that means that of your $5.00 you pay in dues, $3.00 per year goes into the newsletter.

...more Tidbits

For those of you outside TRW, we add 22 cents for postage and the cost of getting the newsletter to you is $5.64 per year. Not much left out of the $7.00 investment is there?? So, with all this money YOU are spending on it, won't you take the time to read it?? Thanks! I already appreciate it!
IF YOU HAVEN'T RENEWED YOUR MEMBERSHIP YET, DO IT NOW!!!!
THE FORM IS AT THE BACK OF CROSSTALK. USE IT - RIGHT NOW
ANSWER ALL THE QUESTIONS! - WRITE A CHECK! - SEND IT IN!!

General Meeting 17 Dec 1985   Paul Lukas, N6DMV

President Walt Pearson opened the meeting and called immediate Past President Bill Rodner, K6AWS, from the floor and presented to him his Certificate of Appreciation. Bill is visiting here from his home QTH in Idaho. He can be heard on Monday/Wednesday/Friday at 1730 local time at 7.253 MHz +QRM. Join the gang if you can! Walt briefly outline the state of affairs of the Club. After serving two years as President he must step down. Walt was given a round of applause for his fine work. Jim Wike reported he has Club patches available for $2.00 each. Bill Dews reported that the Club has 170 members and that only 35 had renewed to date. Walt disclosed that a request was made by the Tournament of Roses to use the W6TRW 447.000 MHz repeater as a backup for communications during the Rose Parade. Bill Dews is planning on using the W6TRW repeater output frequency for a roll call of RACES members in the area each Monday of the month except the first Mondayand on holidays. Roll call begins at approximately 1930 local time. Members living around TRW interested in joining RACES may contact Bill. See the back of Crosstalk for his phone and mail station. W6FXN repeater is wondering again if amateurs are listening to the Shuttle audio during Shuttle flights on the repeater. Please send your comments either for or against to:

Dick LaBelle
Buzzard Peak System
P.O. Box 5064
Covina, CA 91723

Chris Wachs announced that the Club now has 5 Packet user members. According to rumors, MFJ is coming out soon with a TNC-2 board - projected price approx. $130.00. Chris is trying to get more Packet users - at least 10 more - with a try at a group buy of TNC-2s. The VHF contest is coming up January 11 from 1100 local to January 12, 2000 hours local. Logs need to be in to Chris by January 27th. For an explanation of the grid system, see the December 1985 issue of the Crosstalk. Chris mentioned a few amateur satellites to be launched next year. Watch the Crosstalk for details. The door prizes included 3 ARRL 1986 Handbooks, 1 ARRL Antenna Book, 1 flashlight, 2 packs of QSL cards (100 cards in a pack). Walt handed over his "President" badge to Chris Wachs with his good wishes. The meeting was adjourned at 1258 local time. 25 people attended the meeting.

Wanted -- For Sale -- Freebies

The following parts have been donated to the TRW ARC and are available to Club members for your projects. There isn't a lot here, but we expect to get a trickle of goodies from time to time.
26 ea. Signetics RB521 High Speed Comparator
150 ea. 11 ohm, 5%, 1/8 watt resistors
19 ea. 7.87 Kohm, 1%, 1/10 watt resistors
15 ea. 61.9 ohm, 1%, 10 watt wirewound, chassis mount resistor.
Anyone finding a use for these parts may contact John Keller, (53)62303, MS M5/1470 to get what you need.

Luck is always against the person who depends on it.

New Members - - Old Members

First to catch up on last month's new members who inadvertantly got mislaid:

Welcome to the Club:
Neal Hudson, N6NW, an Extra Class license holder, licensed for 13 years, an ARRL member and an avid HF CW DX chaser who wants to help out on Field Day!!
Phil Bergeron, N6PB, also an Extra Class license holder, licensed for 20 years, likes HF work and will help out on Field Day.

Bill Dews says that badges have been received for Glenn, KH6UR; Tom, WA1ZQR; Don, N6LLC; Harry, WC6M; Rich, N6CIZ; Serge, WA6BJV and Jim Hill, W6IVW.

Bill has been doing his job promoting the Club and has signed up TWENTY new members!!
So, Welcome to the Club:
Julian Macassey, N6ARE, holder of a Tech license, ARRL member and licensed for 17 years. Those who attended the Club Annual Banquet will remember the fine presentation made by Julian.
Steve Rudolph, W6OFV, licensed for 26 years with an Advanced ticket and an ARRL member.
Leon Kaspersky, N6MMV, licensed all of 1/2 year with a Technician license.
Michael Ade Banjo, not yet a ham but interested enough to join the Club an see what its about.
Dave Scharffenberg, not yet a ham and I think that last name is going to break our computer. I think Bill Schrecengost has finally been beat!
Joharchi Abdolazim, not a ham but an avid Swapmeet attendee. It took me a full 3 minutes to type that name so that I made sure it was right!
Robert Block, KB6FBV, holder of a Technician license.
Ed Reinberg, W6JI, licensed for 35 (!) years with an Extra Class license and is active on HF and VHF
John Horvath, not yet a ham but ready, willing and able to learn. John is interested in circuit development.
Greg Martens, formerly WN9EEV, now expired novice license. Greg's formost interest is regaining his license!!
Ted Beach, KG6AT, holder of an Advanced ticket and joins as a Family member.
Robert E. Bloom, W6YUY, licensed since 11/16/46 (that makes your ham career longer than the editor's life!) with an advanced ticket and an ARRL member.
Paul Hudson, WA6AVJ, holder of an Advanced ticket, licensed since 1938 (!!) and an ARRL member.
Leolf M. Rees, WA6WET, licensed for 15 years, holder of an Advanced Class license and an ARRL member.
Leonard J. Baker, KB6KNQ, holder of a Gereral license and only licensed for a year. Leonard is an ARRL member.
Newell Field, W6TQY, holds an Advanced Class ticket and would like to help work on the Club station.
Dale Blackmer, AB6F, has been licensed for 8 years, holds an Extra Class license and is an ARRL member.
Chun S. Mun, not yet a ham but an avid attendee of the Swapmeet.
Mike Ramirez, W6YLZ, licensed for 25 years and holder of an Advanced ticket. Mike was one of the operators on Mt. Pinos for the September VHF QSO party that did so well and he has helped out at Field Day the last couple of years.
Harry T. Mortimer, N6FKO, ARRL member, Technician Class license holder and has been a ham since 1981.

Bill Dews has ordered badges for the following people. The badges might be in by this month's Club meeting.
Don, WA6VHC; Len, KB6KNQ; Newell, W6TQY; Dale, AB6F; Harry, N6FKO; Dave, WA5DJJ; Chuck, K6AHF; Ken, KE6NA; Steven, N6IQA; Jeff, N6JI and Paul, WA6AVJ.

TOMORROW -- The greatest of all labor saving devices.

Executive Board Meeting 14 Jan 1985   John Keller, N6JLS

Attending were Jim Cox, Bill Daley, Bill Dews, Scott Gilmartin, Paul Herbert, Dale Jensen, John Keller, Steve Ng, Walt Pearson, Chris Wachs, Jim Wike and Paul Wisiolek. President Chris Wachs called the meeting to order at 5:35 pm. Chris introduced the new members of the Executive Board to those present; Vice President Scott Gilmartin, Treasurer Dave Stockwell and High Tech Group Chairman Steve Ng. Chris asked that all board and staff members search for assistants during this year, to help with the job and to train someone to take over if the need should arise. Emergency Communications Coordinator Dale Jensen has put together a guide for ECT members and it will be used as an input to Security as how we define our interface to them during and emergency. Reaction to the ECT by Security up to this point has been very cool. Technical Chairman Jim Cox reported that the W6TRW repeater in E2 now has battery back-up emergency power. Jim further stated that the PL can be remotely disabled for community access during an emergency. Jim is holding a work party on Jan 18 to change out the repeater antenna and install the present antenna into the Club ham shack in Bldg 65. Ten 2 Meter handheld tranceivers have been fitted with single tone PL's. The batteries in these radios were found to be completely depleted. Jim stated that if these radios are to be used for emergencies, the batteries must be discharged/charged on a regular basis. Much discussion was held on the method of keeping NiCad batteries operable. Club needs to find a person who will accept responsibilty of looking after the radio batteries. Interested parties may contact any Executive Board or Staff member to volunteer. Vice President Scott Gilmartin reported that the speaker for the January meeting will be Mike Henderson, U.S. Sales Manager for Yaesu. Mike will have news on new equipment and handouts. Treasurer Dave Stockwell presented a proposed budget for 1986. It was moved and voted that the budget be accepted for review with modifications, if any, and approval to take place at the next EBM. Bill Daley gave his report on the last LAACARC meeting. Bill reminded the board that dues for LAACARC membership are now due. Membership Chairman Bill Dews stated that we have 105 members who have either renewed or are new members. Bill reported that his sweep of the December Swapmeet netted 20 new members, with more to follow. SEA Representative Paul Herbert presented information to the board on changes in the way SEA will be operated and changes that the Club will have to make within the year. Training Chairman Paul Wisiolek delivered a list of examinations that will be held in California that are coordinated by GLAARG. See elsewhere in Crosstalk for the list. Crosstalk Editor John Keller verified the mail stations and phone extensions of the board and staff members and reported that SEA will be installing a photocopier for use by the clubs to print up the newsletters. SEA has not yet worked out operating methods and availabilty of the copier. Steve Ng reported that he and Jim Wike are working out details for a group purchase of AEA PK-80 TNC's for those who do not own Commodore 64 or 128 computers and wish to get on Packet. See the article elsewhere in Crosstalk. Chris reported that AMSAT is looking for people to put together a satellite that will go into geosynchronous orbit. If you know anyone who loves to work on satellites and is fed up with the hassel of getting flight equipment out of TRW, let Chris know. AMSAT is not as picky about the hardware but the designs are good and the hardware works when put together. Chris also mentioned that the condition of the ham shack in Bldg 65 is deplorable!! A discussion arose as to whose resposibility the condition of the shack is and how we can insure that it remains clean once it is cleaned up. The meeting was adjourned at 7:10pm.

Recently observed bumper sticker:
    This Car Insured by Smith & Wesson

December Swapmeet Notes — Frank Cartier, WA6RAY

Either a lot of people needed extra money to pay for Christmas bills or a lot of people were cleaning out their radio shacks over the holidays because we had one of the largest turnouts of the year for the December Swapmeet held on the 28th. When I arrived at 0600 to make sure we didn't have a false early start like we had in November it was cold, damp and foggy and by the 0700 opening it was so foggy we couldn't see across the seller's lot. The conditions improved somewhat by 0830 but the sun never did come out along the coast, or at least in Manhattan Beach, that day. While talking with some of the early arrivers, I found out that some of them had been there since 0400 or 0430 and a couple had driven 6-1/2 hours from San Jose, 400 miles one way!! That makes the guys from San Diego look like locals. At 0600 there were about 50 vehicles waiting in line. Since everyone must know by now that we don't start until 0700, please don't arrive in the vicinity of the TRW property until 0630 or 0645. We will change our entrance procedure starting next month when we will open a second entrance for the first 15 minutes (0700-0715) and we will get everyone who is there in by 15 minutes, or less, after the starting time so there is NO need to arrive before 0630 and bother the surrounding neighborhood.
Thanks to the December Volunteer Supervisors:

Mike Aust, WB6DJI
Mel Erb, K6GWC

We were short one volunteer supervisor this month so Mike and Mel did an excellent job of covering all the bases. This was Mel's second time in a row as a volunteer supervisor. Thanks Mel!! Special thanks to Norm Wright of TRW Maintenance and TRW Security for their dependable assistance each month.
The volunteer supervisors for January are not lined up as of press time so beware you may get a call from me!
The volunteer supervisors are reminded to be at the sellers lot between 0630 and 0645 and make sure there is no one in the sellers lot before 0700.
As we start 1986 I want to reiterate our Swapmeet regulations:
1) Nobody in the sellers lot before 0700.
2) All items for sale/swap must be Amateur Radio related, no general merchandise.
3) No commercial operations or quantities.
4) Do not arrive in the vicinity of the TRW property until after 0630.
5) Closing time is 1130.
6) Sellers must clean up their area, don't leave anything behind.
A number of undesirable situations continue to occur:
1) Sellers leaving trash behind.
2) Sellers not leaving the sellers lot by 1130.
Let's make sure that the area is cleaned up before leaving and make sure you plan your activities so that you are leaving the lot by 1130.
The winner of the TRW/ARC Swapmeet raffle is ticket number 440086. If you have the winning ticket, present it to Treasurer Dave Stockwell, WA6ATK, for your $10.00 prize to be spent at a future Swapmeet. Any Club member wearing a TRW/ARC Club badge, hat or showing their membership card gets up to three raffle tickets at each Swapmeet.
All TRW/ARC members who attend the Swapmeet are asked to observe that all of the rules are being followed. If you observe a situation which is in violation of the rules, contact one of the volunteer supervisors for the appropriate corrective action. We monitor the output of the Club repeater on 145.320 MHz.
73's and see you on January 25th at 0700!!

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"The deepest principle in human nature is the craving to be appreciated," said philosopher William James.

Obvious as this fact may seem, there are bosses who don't seem to realize that this applies to the people who work for them as well as to themselves.

The Digital Front — Chris Wachs, WA2KDL

This month's column is devoted to answering those frequently asked questions.
1] What TNC (Terminal Node Controller) should I get?
A TNC made by any company licensed to duplicate the design of the Tucson Amateur Packet Radio TNC-2. TAPR sold the design to various companies to make the TNC-2. A few of the companies which bought the design are: AEA, MFJ, GLB and Pac Comm.
2] How do I hook up a TNC to my computer?
Think of your TNC as a fancy modem. The TNC connects to an RS-232 (serial port) connector on your computer. The program will turn your computer into a terminal on which everything you type goes out the RS-232 connector to the TNC. Everything the TNC sends goes to the display of the computer. Some terminal programs allow you to send and receive data with a computer memory disk. That feature is nice for receiving programs and text and saving them.
3] What about the Packrat?
The Packrat, also known as the PK-64, is only for use with the Commodore 64 and 128 computers. It will not work on any other computers. If you do not have a computer, the least expensive alternative is to get a Commodore 64 (about $120) and a PK-64 (about $190) and use your TV as a display.

From the Library — George Lee, W6IOW

What's new in the January issue of:
QST Product Review - Icom IC-735
- Heath GC-1000 "Most Accurate Clock"
Station Design for Traffic Handlers
HR A Frequency and Level Standard
Broadband RF Transformers
Trapping Stubborn Harmonics (Coax Stub Filters)
Designing Yagis with the Commodore 64
CQ Review of the Icom 735
Review of Cushcraft 20-3CD Skywalker 20 M beam
How to build a switched Capacitor bandpass CW filter
73 Try an Inverted Psi Wire (Cap hat top loaded antenna on 80 Meters for DX)
Selcal & State Machines (a technique to squelch unwanted traffic)
A Better Money Maker (Fairchild 78GU1C, a better regulator than the LM317 at high current)
The Perfect RTTY Filter (a tunable shift covering 80 to 1160 Hz)

The Los Angeles Marathon

The Los Angeles Amateur Radio Community has been asked to privide communications on a PRIMARY basis for most of the activities of the first annual Los Angeles Marathon. To date, 15,000 requests for runner registration have been received and new requests are arriving at 400 to 600 per day. It is hoped that a "small" group of 300 hams can be put together to support this marathon. Those interested are asked to sign up as soon as possible. All communications on the ham bands will be purely of a public service nature. Responsibilites that hams have been asked to undertake include: Mile Net, Shadow Net, Medical Net, Logistics Net, Course Walkers - 4 per mile, Downed Runner Net - Packet Radio, Red Cross Spectator First Aid Net, Lead Runner Position Net - Using Commercial Radios. Those interested: hams, packet radio operators, computer wizzes, repeater owners, please contact ASAP:
Scott Fraser, KN6F
1406 East 53rd Street
Long Beach, CA 90805-6116
(213) 423-0770
If you would like a sign-up sheet or more detailed information right now, contact John Keller M/S M5/1470 extension 62303.