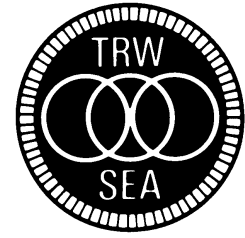




CROSSTALK

News Bulletin of the TRW Amateur Radio Club



Volume 100 Number 1

January 2000

Editor's Corner:

Well, this was supposed to be the last issue of the *Crosstalk* for 1999, but as you can tell, it didn't make it to repro in time. I spent most of Dec. 1999 at Vandenberg Air Force Base supporting a launch of a International Satellite for the South Korean government. This was a joint effort by TRW and South Korea, which was successfully launched on Dec. 20th at 23:11 hrs local time on a Orbital Taurus Launch Vehicle. I apologize for any inconvenience that this may have caused. Anyway, back to the club, many events have happened in 1999, some of the most memorable was the evolution of Tower #2 on Building S and the Swapmeet move. There was a lot of work put into getting Tower #2 on the roof, I had the opportunity to be there one Saturday for just a short time, and what I saw was a enthusiastic group of members that wanted to see a vision become a reality. For a lot of us, it's really easy just to look up on the S roof and say "Yep, that's our new Tower", but a few people spent many hard hours to make this come together, Dave Nelson AB6DU in the beginning, then Craig Gullickson, N6ED who took the initiative to see it through. Sure, there were others, many others who at various times put in their share, but I'm sure if I'd try to list them all, invariably, I'm sure I'd probably leave someone out. If you are one of them and would like to contribute your version, please send me your stories, and I'll be sure to print them.

Also, a big Thanks to the Swapmeet crew for making the move a successful one.

Well, the year 2000 hopefully will bring new exciting events, contests, and new faces to the ARC, let's keep the tradition going, and have a great New Year.

The 33rd Annual Awards Banquet

There was a good turnout to the Banquet this year. Bill Pasternak WA6ITF gave a interesting, sometimes humorous side of his experiences in Amateur Radio, and let's not forget the good food and of course the awards, there were many, last but not least, the prizes.

Amateur Restructuring is Here !!

Yep, it's finally here, see the latest information on page 5.

Membership renewal time

Don't be left out in 2000, renew your dues, it's a good investment. I've included a renewal form in this issue.

Duane Park, WA6EIK Crosstalk Editor

Happy New Year!!



TRWARC Monthly Calendar of Events

First Tuesday of each month	5:30 pm	Executive Board Meeting, R4/2041 (All Club Members are invited)
Second Tuesday of each month	5:30pm	Club Meeting Round Table Pizza, (Redondo Bch. & Hawthorne)
Second Tuesday of each month	12:00 noon	Emergency Communications Team Meeting R3 Emergency Operations Center
Last Saturday of each month	7:00 am	TRW/ARC Swap Meet Marine and Aviation (Northeast Corner)
After the Swapmeet	12:00 noon	T-Hunt Swap Meet Parking Lot - 144.72 MHz

Weekly Events

Every Monday Night (Except the 1st & Holidays)	7:30 pm	Disaster Communication Systems (DCS) Net DCS Members: Check in on 2 Meter Repeater
Every Wednesday	12:00 noon	ECT Net on 2 meter Repeater All Amateurs Welcome
Every Thursday	7:00 pm	Space Hams Net on 2 meter Repeater with N6SHI and W6EKK
Every Mon, Wed, Fri	2:00 pm	TRW Retirees Net 7185 KHz
Every Friday Morning	7:30 am	TRW Amateur Radio Club Breakfast Building S Cafeteria - Everyone is invited Talk-in on 2 Meters

Other Events

Computer Fair Hours: 10:00 to 17:00 (get a \$25.00 annual pass see:

<http://www.lacomputerfair.com/annpass.html>)

POMONA \$6.00 admission

Live Broadcasts: KFI-Jeff Levy "On Computers", KZLA, Y-107FM

January 8 & 9, 2000 (Sat. & Sun.) bldgs. 6 & 7 - January 22 & 23, 2000 (Sat. & Sun.) bldg. 4

Fairplex Exposition Complex Exit Highway 10 at Fairplex Drive.

Go north to McKinley Avenue, turn right. Turn left on White Avenue to Gate 14.

RESEDA \$3.00 admission

January 15, 2000 (Sat.)

Sherman Square Entertainment Center From the 101 Freeway take the Reseda offramp,

go north to Sherman Way and turn right. Go one block to Canby Street. 18430 Sherman Way.

BUENA PARK \$5.00 admission

January 15 & 16, 2000 (Sat. & Sun.) - February 5 & 6, 2000 (Sat. & Sun.)

Sequoia Conference Center Take the Beach Blvd. exit off the 91 Freeway.

Go one block north to 7530 Orangethorpe.

All Shows Open to the Public 10:00 a.m. to 5:00 p.m.

Call for more information (408) 778-5200 or 800-800-5600 Fax# (408) 779-1374

Other Ham Swap meets:

Inland Empire ARC - 2nd Sat. ea. mo. 7:00 to 11:30 AM @ A.B. Miller High School, Walnut & Oleander

in **Fontana** Talk-in 145.480 (-600 pl=77.0hz)

EI Cajon ARC - 1st Sat. ea. mo. 6:00 AM @ Santee Drive-in Theater, Woodside Ave. @ Hwy 67 in **Santee** Talk-in 146.52

NEW: CAL POLY swap meet – 3rd Sat. ea. mo. 7-11am in lots F8,F9 and F10 @ CAL Poly Pomona at 3801 West Temple.

Talk-in TBD (if you know, please email me... ed.)



TRW AMATEUR RADIO CLUB
MEMBERSHIP APPLICATION



COMPLETE BOTH SIDES!

Name: _____ Date: _____

Amateur Call Sign: _____ License: EXT _____ ADV _____ GEN _____
NOV _____ TEC + _____ TEC _____

Student under age 18? _____ ARRL Member? _____

CURRENT TRW SPACE PARK EMPLOYEES ONLY:

Badge Number: _____ CCC: _____ Phone: _____

Mail Station: Building: _____ Room: _____

ALL APPLICANTS:

Home Address: _____

City: _____ State: _____ Zip: _____

Home Phone Number: (____) _____ - _____

Please provide ways to contact you or to send club bulletins, e.g. email address (home and/or work), fax no. cell phone, pager, or other:

FAMILY MEMBERS OF TRW SPACE PARK EMPLOYEES AND RETIREES *

Name: _____ Call: _____ Class: _____

Only family members of TRW Space Park employees are eligible for family memberships on the employee's form. All others should submit separate applications.

DUES

TRW/ARC CLUB BADGE ORDER:

TRW Employee (\$5.00) \$ _____
TRW Retiree (\$6.00) ** \$ _____
Non-TRW (\$10.00) \$ _____
TRW Family Members (\$6.00) \$ _____
Club Badge (\$5.00) \$ _____

CALL
FIRST NAME

TOTAL AMOUNT DUE: \$ _____

PLEASE INDICATE THE CLUB ACTIVITIES YOU WOULD LIKE TO PARTICIPATE IN DURING THE

* Retirees - List TRW Badge No. _____

CONTINUED ON BACK ----->

COMING YEAR:

- | | |
|---|--|
| <input type="checkbox"/> W6TRW Field Day | <input type="checkbox"/> Monthly Club Meetings |
| <input type="checkbox"/> Contest (HF and VHF) | <input type="checkbox"/> Club Breakfasts |
| <input type="checkbox"/> Emergency Communications | <input type="checkbox"/> Using the Club Shack |
| <input type="checkbox"/> Picnics | <input type="checkbox"/> Club Library |
| <input type="checkbox"/> TRW/ARC Swapmeet | <input type="checkbox"/> Antenna Parties |
| <input type="checkbox"/> Technical Challenges | <input type="checkbox"/> Repeaters |
| <input type="checkbox"/> Training | <input type="checkbox"/> Other: _____ |

PLEASE INDICATE YOUR INTERESTS IN AMATEUR RADIO:

- | | |
|------------------------------------|---|
| <input type="checkbox"/> HF | <input type="checkbox"/> SSTV |
| <input type="checkbox"/> VHF | <input type="checkbox"/> AMTOR |
| <input type="checkbox"/> UHF | <input type="checkbox"/> CW |
| <input type="checkbox"/> Microwave | <input type="checkbox"/> DX |
| <input type="checkbox"/> Packet | <input type="checkbox"/> Computers |
| <input type="checkbox"/> OSCAR | <input type="checkbox"/> DCS/RACES/ARES |
| <input type="checkbox"/> RTTY | <input type="checkbox"/> QRP |
| <input type="checkbox"/> ATV | <input type="checkbox"/> Other: _____ |

What do you like best about the TRW ARC?

=====

FULL RELEASE OF ALL CLAIMS

In consideration of my participation in the TRW/SEA Amateur Radio Club and any and all of its events, I, the undersigned, intending to be legally bound, for myself, my heirs, executors and administrators, do hereby fully and finally waive, release and hold harmless the TRW/SEA Amateur Radio Club, TRW Space Park Employees Association, TRW, Inc., and Ohio corporation, and their respective directors, officers, employees, members, agents and assignees from any and all responsibility, liability, claims, causes of action, injuries, judgments or other damages of any nature whatsoever, including, but not limited to, any personal injuries I might suffer, directly or indirectly resulting from my participation in, or travel to and from the aforesaid activity.

I acknowledge that I am engaging in the aforesaid activity, and knowingly executing this Release, at my insistence and request and that I voluntarily do so without any coercion whatsoever.

Signature: _____ **Date:** _____

=====

The membership year runs from February 1st to January 31st. Dues are payable in January and are prorated on a quarterly basis thereafter. Please make checks payable to **TRW AMATEUR RADIO CLUB** and send to:

TRW AMATEUR RADIO CLUB
Membership Chairman, S/1156
One Space Park Drive
Redondo Beach, CA 90278

Field Day Chairman's Epilogue: Field Day 1999

The ARRL contest scores came out. We made second place in category 7A this year. Personally I consider that a remarkable feat for a club that only three months prior to Field Day 1999 was struggling with how to replace losing all of it's CW stations as all of old Friendship Park partners from other companies drifted away.

We, and the entire pack of other 7A stations, were topped by one station that turned in an impressive performance. How should we feel about that? It's different for everyone I suppose but I thought I would share how I feel about it. The theoretical winning score for Category 7A should be between 11,000 and 15,000 points in 7A if one deploys a balanced mix of CW and SSB stations.

To break above 20,000 points in 7A means working CW hard for the full 24 hours. That's where the multipliers make the difference. No amount of better antenna or radio station can bridge that gap. To get maximum multiplication the CW stations need to be highly coordinated. We did not have the DXedition grade 300 QSO's per hour set up with every radio cross linked in a local area network to quickly pass each contact to the next band.

There are other trade offs necessary to break the 20K line. More important ones for the members of W6TRW ARC to ponder. Maximizing multipliers means cutting back on non-CW stations leaving fewer operating opportunities for SSB enthusiasts and other modes. That's a tremendous sacrifice to ask of our membership. Can we do that? Are points worth turning a field day outing into a CW communications encampment? Personally I think not. Here's why I feel that way.

What made Field Day 1999 special for me was helping to bring all the different people and all the different radio disciplines into a circle at Friendship Park to exercise some hard learned skills at emergency operations and more important to enjoy exercising those skills in a spirit that reflected the name of the site we chose to call our base. I cannot see sacrificing the joys of amateur radio to the quest for points as a worthwhile trade off. Not for Field Day. According to the ARRL, it's not the spirit of the exercise.

Being the field day chairman twists one's perspective I think. You see all the problems. All the things that go wrong. Then you see the score and think gee it could have been better if only we had done a few more things. I was sure when I turned it in that we would be sixth or seventh in class. Imagine my surprise when the scores came out. I was elated. You know what I see when I look at the ARRL score sheet? I see W6TRW ARC as the category 7A radio station that won it's class among the "recreational" field day stations.

I do admire any team that has the competitive zeal and concentration to assemble an all out points machine. Bravo for them. I hope they keep the record for a long time. But I also know that's not our team. It is very clear to me that a "recreational" field day station is the only type of operation W6TRW can and should ever mount. It's the inclusive format that appeals best to our large cross section of people. It doesn't mean we're any less proficient. Actually I think our score proves were pretty proficient at what we wanted to do.

As chairman, I also got to witness everyone else enjoying their piece of Field Day in ways as simple score cannot count. Loading the trucks and raising the antennas was as much a part of field day as triggering the transmitter. People enjoyed themselves doing it. Scrounging for last minute hardware or going on food runs was just as important as aiming a satellite antenna array. People enjoyed doing these things too. Assembling operators to create station teams in the weeks leading up the event was part of the event. The proof of that fun for this last one was the jovial discussion that permeated the repeater almost daily in the 60 days prior to field day. And how about the people tinkering with antennas and radios to get them ready. These are the skills we came to prove a group of 100+ people can do when needed.

Let us not forget so soon that we overcame significant challenges just to assemble a 7A deployment. I dare say few other operations could have recovered from losing all their CW stations like we did. It's a tribute to the depth of the W6TRW community. An even greater tribute is that we did not fray too many nerves along the way.

As chairman it was my privilege to see people enjoy themselves this year. Congratulations to us all. We had fun. That is the spirit of field day.

Sincerely,

Dennis Santiago, KQ6KR
1999 Field Day Chairman
W6TRW Amateur Radio Club

Amateur Restructuring is Here: Three License Classes, One Code Speed

NEWINGTON, CT, Dec 30, 1999--Amateur Radio will get a new look in the new millennium. The FCC today issued its long-awaited Report and Order in the 1998 Biennial Regulatory Review of Part 97--more commonly known as "license restructuring." The bottom line is that starting April 15, 2000, there will be three license classes--Technician, General, and Amateur Extra--and a single Morse code requirement--5 WPM.

"We believe that an individual's ability to demonstrate increased Morse code proficiency is not necessarily indicative of that individual's ability to contribute to the advancement of the radio art," the FCC said.

Besides drastically streamlining the Amateur Radio licensing process, the FCC said its actions would "eliminate unnecessary requirements that may discourage or limit individuals from becoming trained operators, technicians, and electronic experts."

Although no new Novice and Advanced licenses will be issued after the effective date of the Report and Order, the FCC does not plan to automatically upgrade any existing license privileges. The ARRL had proposed a one-time across-the-board upgrading of current Novice and Tech Plus licensees to General class, but the FCC declined to adopt the idea. This means that current licensees will retain their current operating privileges, including access to various modes and subbands, and will be able to renew their licenses indefinitely.

Starting April 15, 2000, individuals who qualified for the Technician class license prior to March 21, 1987, will be able to upgrade to General class by providing documentary proof to a Volunteer Examiner Coordinator, paying an application fee, and completing FCC Form 605.

The FCC's decision not to automatically upgrade Novice and Tech Plus licensees means the current Novice/Tech Plus HF subbands will remain and not be "refarmed" to higher class licensees as the ARRL had proposed. The FCC said it did not refarm these subbands because there was "no consensus" within the amateur community as to what to do with them.

As it had proposed earlier, the FCC decided to lump Technician and Tech Plus licensees into a single licensee database, all designated as "Technician" licensees. Those who can document having passed the 5 WPM Morse code examination will continue to have the current Tech Plus HF privileges. "If documentation is needed to verify whether a licensee has passed a telegraphy examination, we may request the documentation from that licensee or the VECs," the FCC said.

In addition to reducing the number of license classes from six to three and eliminating the 20 and 13 WPM code tests, the FCC also will reduce the number of written examination elements from five to three, authorize Advanced Class hams to prepare and administer General class examinations, and eliminate Radio Amateur Civil Emergency Service (RACES) station

licenses. RACES will remain, however. "After review of the record, we conclude that we should eliminate RACES station licenses because RACES station licenses are unnecessary for amateur stations and amateur service licenses to provide emergency communications," the FCC said.

Under the new licensing scheme, there will be four examination elements.

Element 1 will be the 5 WPM Morse code exam. Element 2 will be a 35-question written test to obtain a Technician license; Element 3 will be a 35-question written test to obtain a General license, and Element 4 will be a 50-question written test for the Amateur Extra license. The FCC has left it in the hands of the National Conference of VECs Question Pool Committee to

determine the specific mix and makeup of written examination questions. Current Amateur Radio study materials remain valid at least until the new rules become effective in April.

The FCC's new licensing plan means someone will be able to become a ham by passing a single 35-question written examination. The plan also simplifies and shortens the upgrade path from the ground floor through Amateur Extra--especially since amateurs will only have to pass one Morse code test.

Elimination of the 13 and 20 WPM Morse requirements also means an end to physician certification waivers for applicants claiming an inability to pass the Morse code examination due to physical handicap.

The effective date provides a window of upgrade opportunity for current Advanced licensees. Between now and April 15, current Advanced holders may take the existing Element 4B, a 40-question test, giving them credit for having passed the current Extra written examination. Likewise, holders of a Certificate of Successful Completion of Examination (CSCE) for Elements 3B or 4B dated on or after April 17, 1999, will be able to qualify for General or Amateur Extra respectively when the new rules go into effect on April 15, 2000.

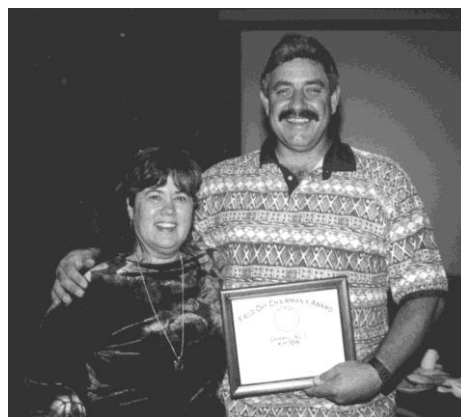
[Amateur Restructuring is Here \(Cont.\)](#)

The FCC disagreed with the League's suggestion that it undertake a restructuring of operating privileges along with licensing restructuring. "We believe that in light of ongoing discussions concerning implementation of new and more modern communications technologies within the amateur service community, we should accord the amateur service community an opportunity to complete such discussions and possibly reach a consensus regarding implementation of new technologies before we undertake a comprehensive restructuring of the amateur service operating privileges and frequencies," the FCC said in its Report and Order.

In its amendments to Part 97, the FCC's Report and Order refers to a "Club Station Call Sign Administrator," something that does not exist under the current rules and which was not explained in the R&O itself. An FCC spokesperson said the Commission plans to issue a Public Notice soon to explain the program and to solicit qualified entities to serve as call sign administrators for club station applications.

A copy of the entire Report and Order (FCC 99-412) is available at <http://www.arrl.org/announce/regulatory/wt98-143ro.pdf> or at http://www.fcc.gov/Daily_Releases/Daily_Business/1999/db991230/fcc99412.txt.

~~~~~  
Rick Lindquist, N1RL  
Senior News Editor  
ARRL HQ  
860-594-0222  
[n1rl@arrl.org](mailto:n1rl@arrl.org)  
Hear Amateur Radio News!  
860-594-0384 or on the Web at  
<http://www.arrl.org/arrlletter/audio/>



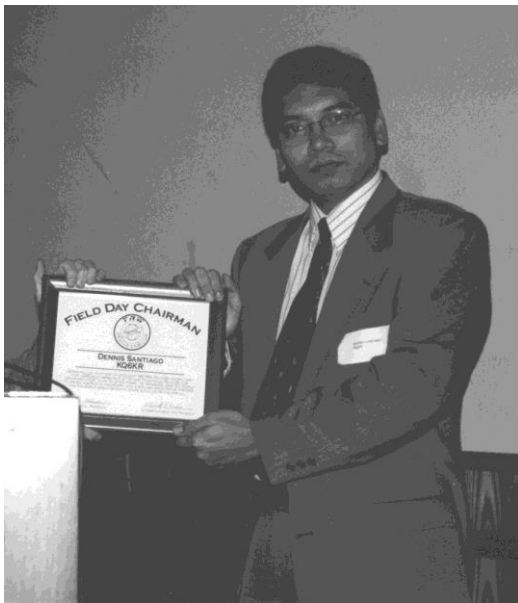
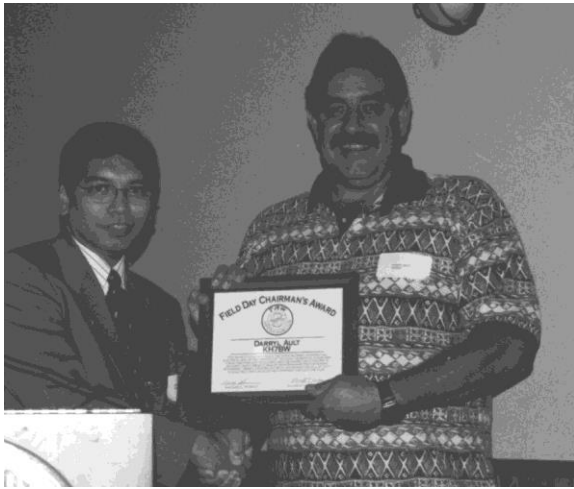
Darryl Ault, KH7BW received the "Field Day Chairman's Award



Grand Prize winner FT-100 Transceiver

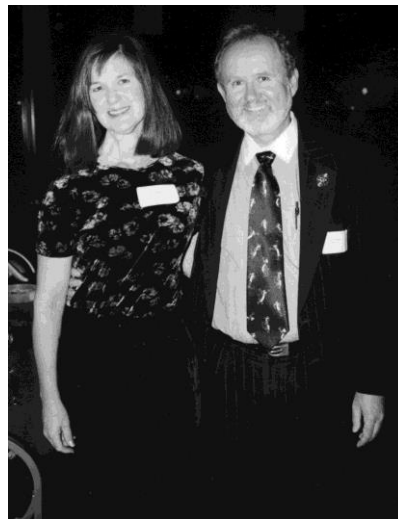


Here, President Greg Shreeve presents our Guest Speaker, Bill Pasternak a Certificate of Appreciation for speaking at 1999 Banquet



1999 Field Day Chairman Dennis Santiago, KQ6KR

**More photos to come, see next month's issue**





## **Last Call for WJ HF Receivers** *(by Jim Harrison K6OUE)*

Watkins-Johnson is a manufacturer of RF equipment and receivers used in industry and for surveillance by the government, including monitoring by the FCC. While talking with a Watkins-Johnson salesman the other day at work, I casually mentioned that I was a member of the TRW Amateur Radio Club, and that their equipment would find many uses in a ham shack if it weren't for the high industrial type prices. He then told me that WJ had a consumer version of their DSP HF receiver which was at a consumer level price. He also said that they were discontinuing it because they made almost no profit on it, and that the last orders would be taken in December 1999. He said that if enough people in the club were interested in purchasing it, he could get us a group discount. As I write this I am still awaiting his price quote, but if anyone is interested in purchasing one, please give me a call (Jim K6OUE x41937).

The Watkins-Johnson HF-1000A receives from 5 KHz to 30 MHz with 1 Hz tuning resolution and 1 Hz display accuracy. It will actually tune down to 0 Hz, but the specs are not guaranteed there. If you are interested in the new LF bands (150 KHz) this would be a great receiver. It demodulates AM, synchronous AM, FM, CW, USB, LSB, and ISB (which is independent information in the two sidebands). All filtering and demodulation is done in a Motorola DSP chip at the IF, and 58 IF bandwidths are selectable all the way down to 56 Hz for CW. There are 100 memories and three different scan modes. It has noise blanking and a notch filter. The signal strength meter is very accurate and is not affected by the settings of the RF preamp or attenuator. If anyone wants a real mil-spec radio receiver this is a great opportunity.

## **Contests**

**ARRL Jan. VHF Sweepstakes January 22-23** (1900 UTC Jan.22 to 0400 UTC Jan. 24)

ARRL International DX Contest CW February 19 – 20 (0000 UTC Saturday; ends 2400 UTC)

ARRL International DX Contest Phone March 4-5, 2000 (0000 UTC Saturday; ends 2400 UTC)

---

**For Sale:** Microtek X6 color flatbed scanner with optional LightLid<sup>®</sup> accessory for transparencies. 8 mos old, still under factory warranty. EPP parallel interface. All cables, books, & software. Absolute perfect condition. \$180.00 new. Sell for \$75.00  
John Cheatham KE6OJM 310-813-5903 R9-2477 [john.cheatham@trw.com](mailto:john.cheatham@trw.com)

# TRW AMATEUR RADIO CLUB

## ELECTED OFFICERS

|                |                  |        |            |                |
|----------------|------------------|--------|------------|----------------|
| President      | Greg Shreve      | KE6YEX | 201A/3009  | (310) 812-2079 |
| Vice President | Elizabeth Kunkee | KS4IS  | D1 / 1024  | (310) 813-0524 |
| Secretary      | Craig Gullickson | N6ED   | R6 / 2529F | (310) 812-5389 |
| Treasurer      | Steve Lambert    | KQ6ZC  | R6 / 2529  | (310) 812-5019 |

## APPOINTED STAFF

|                            |                  |        |                   |                       |
|----------------------------|------------------|--------|-------------------|-----------------------|
| 447 Repeater Autopatch     | Duane Park       | WA6EIK | M2N / 1384b       | (310) 813-4219        |
| Activities Chairman        | Greg Martens     | N6RRY  | M1 / 1275         | (310) 813-4049        |
| Crosstalk Editor           | Duane Park       | WA6EIK | M2N / 1384b       | (310) 813-4219        |
| Emer. Comm. Coordinator    | Wendell Young    | KE6ASC | R5 / 1060B        | (310) 813-7691        |
| Librarian                  | Steve Papa       | KO6VF  | O2 / 1715         | (310) 812-5305        |
| Membership Chairperson     | Dave Nelson      | AB6DU  | <b>DH4 / 2461</b> | <b>(310) 764-3496</b> |
| Past President             | Elizabeth Kunkee | KS4IS  | D1 / 1024         | (310) 813-0524        |
| Publicity Chairperson      | Dave Nelson      | AB6DU  | R8 / 2144         | (310) 813-9775        |
| QSL Manager                | Bryan DeAro      | KN6OW  | 120 / 1020B       | (310) 812-4789        |
| S.P. Packet/Internet Sysop | Chris Wachs      | WA2KDL | M4 / 2375         | (310) 813-1506        |
| SEA Representative         | Nina Whiddon     | KN6FL  | 01 / 2020         | (310) 813-9351        |
| Swap Meet Manager          | Greg Martens     | N6RRY  | M1 / 1275         | (310) 813-4049        |
| Technical Chairperson      | John Cheatham    | KE6QJM | R9 / 2477         | (310) 813-5903        |
| Training Chairperson       | Bryan DeAro      | KN6OW  | 120 / 1020B       | (310) 812-4789        |
| Trustee of W6TRW License   | Elizabeth Kunkee | KS4IS  | D1 / 1024         | (310) 813-0524        |

|                                                                |                                                                                 |
|----------------------------------------------------------------|---------------------------------------------------------------------------------|
| TRW ARC Hotline (Club Answering Machine)                       | (310) 813-8569                                                                  |
| W6TRW 2 Meter Repeater (Open Repeater)                         | 145.32 (-600) PL 114.8Hz                                                        |
| W6TRW UHF Repeater (Open Repeater / Closed Autopatch)          | 447.00 (-5 MHz) PL 100 Hz                                                       |
| W6TRW-3 Packet Radio Internet Gateway and BBS (1200 Baud Port) | 146.745 (-600)                                                                  |
| W6TRW Internet Home Page                                       | <a href="http://www.w6trw.ampr.org/w6trw/">http://www.w6trw.ampr.org/w6trw/</a> |

TRW Amateur Radio Club  
 S/1156  
 One Space Park  
 Redondo Beach, CA 90278

## FIRST CLASS

Deliver To:

