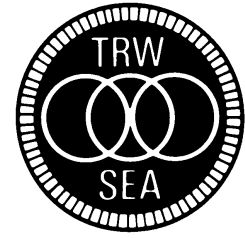




# CROSSTALK

News Bulletin of the TRW Amateur Radio Club



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Volume 100 Number 2

February 2000

## **Editor's Corner:**

Please welcome a new TRW hire, and new ARC member, **Carl Puckett, K7UFO**. Carl has moved here PCS from Vegas. He has been licensed since 1968 and is much interested in the HF station, as well as many other opportunities (FD, DX) our club offers.

**Ron Grassl, WB6MQG**. Also a long time ham now working in D1, and joined in November.

**Let's extend a warm Welcome to the TRW Amateur Radio Club!!**

## **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.

## **Fire destroys HRO Anaheim**

One of the premiere Ham Radio stores in the southland suffered a complete loss. (By the time you read this, the rebuilding process should be well under way.) **See page 9**

*In addition to the details on page 9, Bill, W1HIJ representing HRO also says:*

"A couple of people have asked me about consignment and repair items that were in the store. The records for those items were all paper records. As a result, it is IMPERATIVE that you find and keep your copies of the appropriate paperwork. In a few days we will have a handle on the procedure for taking care of claims."

*Duane Park, WA6EIK Crosstalk Editor*

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## **In This issue:**

- *Contest Corner by Jim Harrison K6OUE – Page 5*
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- *Spread Spectrum Inventor dies – Page 8*
- *HRO to re-build store ASAP – Page 9*

# TRWARC Monthly Calendar of Events

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

## Weekly Events

Every Monday Night (Except the 1st & Holidays)	7:30 pm	<b>Disaster Communication Systems (DCS) Net</b> DCS Members: Check in on 2 Meter Repeater
Every Wednesday	12:00 noon	<b>ECT Net on 2 meter Repeater</b> All Amateurs Welcome
Every Thursday	7:00 pm	<b>Space Hams Net on 2 meter Repeater</b> with N6SHI and W6EKK
Every Mon, Wed, Fri	2:00 pm	<b>TRW Retirees Net</b> 7185 KHz
Every Friday Morning	7:30 am	<b>TRW Amateur Radio Club Breakfast</b> 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: KFWB, KFI, KLOS

February 12 & 13, 2000 (Sat. & Sun.) March 4 & 5, 2000 bldgs. 6 & 7

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

February 26 & 27, 2000 (Sat. & Sun.)

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

Live Broadcasts: KFI, KFWB

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

TOTAL AMOUNT DUE: \$ \_\_\_\_\_

FIRST NAME

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?

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**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:** \_\_\_\_\_

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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

## Results of December ARRL 10 meter Contest by Jim Harrison K6OUE

The 1999 ARRL 10 meter contest was held the weekend of Dec. 11 and 12, 1999. The W6TRW crew operated from the S shack for 20 hours out of the 48 hour contest (a maximum of 36 operating hours is allowed). The results are shown in the table below. We got all of the states except New Mexico and Wyoming, and got 9 of the 13 Canadian provinces. The operators were Jim Harrison K6OUE, Carl Puckett K7UFO, Rod Scott KE6PI, Craig Gullickson N6ED, Elizabeth Kunkee KS4IS, and Dave Kunkee K0DI. Come join us next time! As you can see, we almost made Worked All States on 10m in one weekend. Look for the results to be published in the September 2000 issue of QST.

MODE	QSO	QSO PTS	STATES	COUNTRIES
CW	400	1600	48	21
SSB	437	874	53	29
-----				
Totals	837	2474	101	50 = 373,574

### Countries worked:

SSB	CW
Japan	Australia
Argentina	Russia, Asia
Paraguay	Japan
New Caledonia	Virgin Is.
Russia, Asia	Philippines
Midway Is.	Barbados
Australia	South Korea
New Zealand	W. Malaysia
Palau	Taiwan
St. Kitts	Venezuela
Cayman Is.	Guam
Belgium	Antarctica
Portugal	Hong Kong
France	Uruguay
Madeira Is.	New Zealand
Spain	Thailand
Puerto Rico	Argentina
Peru	Mongolia
Martinique	Russia, Europe
Bonaire	Indonesia
Uruguay	Maritime mobile, ITU region 2
Antigua	
Bahamas	
Maritime mobile, ITU region 2	
Marshall Is.	
Virgin Is.	

## **Amateur Satellite News** *(reprinted from the ARRL Letter Vol. 19 #3)*

### JAWSAT LAUNCH TO BE RESET

The launch of an Air Force rocket carrying several Amateur Radio satellite packages was postponed until late January after a last-minute glitch kept the launcher earthbound January 14. The new US Air Force Minotaur booster was scheduled to lift off then on its maiden flight from the new California Commercial Spaceport at Vandenberg Air Force Base.

The launch was aborted just moments prior to liftoff. According to Eric Lemmon, WB6FLY, the first attempt to launch the Minotaur rocket was aborted around T minus 90 seconds due to a failure in the launch sequencer. At that point, the schedule already had been delayed because of a problem with one of the command-destruct transmitting sites. The sequencer problem was fixed, but a second attempt was halted due to a low battery voltage. "There was insufficient time to recycle before the launch window closed, so the launch was scrubbed," Lemmon explained.

Lemmon says the next launch opportunity would be at least a week away, due to the need to reconfigure the range to accommodate other launches. "It appears that one or more of the batteries aboard the rocket must be removed and serviced before another attempt will be made," he said. "Since there are a number of other satellites hitching a ride on this rocket, there are many issues to be considered."

The Minotaur's primary payload is the US Air Force Academy's Falconsat. JAWSAT--Joint Air Force-Weber State University Satellite. It will serve as a bus for several deployable payloads and for the Plasma Experiment Satellite Test experiment. The telemetry stream from JAWSAT, including data from PEST, will be transmitted on Amateur Radio frequencies.

Deployable payloads aboard JAWSAT are Stanford University's Orbiting Picosat Automatic Launcher--or OPAL; Arizona State University's ASUSat1, and the Air Force Research Lab's Optical Calibration Sphere.

ASUSat will contain amateur packet hardware and a 2-meter/70-cm FM voice repeater. ASUSat1 is an ASU NASA Space Grant project and Arizona State University's first student-designed satellite. Information on ASUSat is available at <http://nasa.asu.edu/asusat/>.

OPAL, in turn, will release three tiny picosats. One of them, StenSat, will have a crossband repeater aboard that will operate much like the popular AO-27 satellite. Hank Heidt, N4AFL, of the StenSat team offers more information at <http://users.erols.com/hheidt/>.

## **Ham radio question makes Millionaire** *(reprinted from the ARRL Letter Vol. 19 #3)*

Eric Hall, K9GY, reports that Amateur Radio has even invaded the popular ABC Television show Who Wants to Be a Millionaire. Hall says one \$100 question asked what Amateur Radio operators are called. The answer, of course, was "hams." Says Hall: "Someone at ABC gave ham radio a little PR." Hall claims that watching the show was his wife's idea.

## **Question Pool Committee Eyes February 1 Release Date**

*(reprinted from the ARRL)*

A revised Amateur Radio question pool that reflects the April 15, 2000, restructuring rules could be out by February 1. Chairman Ray Adams, W4CPA, of the National Conference of Volunteer Examiner Coordinator's Question Pool Committee says the QPC is in "band aid" mode right now and will try to get "something usable into public domain for all three of the new written pools by February 1 or very shortly thereafter."

Adams says that a Technician class syllabus already has been drafted and approved. The various QPC members have been keeping in touch by telephone and e-mail since the FCC announced the restructuring rules December 30.

"We will go back over the newly configured pools, refining them and updating in a methodical manner with the order to be decided by the NCVEC when next in session," Adams said today. "Our recommendation will almost certainly be one pool per year, but we are still trying to decide which pool should be revised first, as all will be in about the same condition, but we must start somewhere."

Adams said that all VECs and publishers he knows about can expect an electronic copy of the new pools when the new pools are ready for release--via e-mail and on disk

"They will follow the established format of having one block of questions for each question that is to be on the test in consideration," he explained. Questions will be numbered according to the current format.

After April 15, 2000, the FCC will only issue Technician, General, and Amateur Extra class licenses. Novice and Advanced licensees will retain current operating privileges and may renew indefinitely. The FCC's new licensing scheme simplifies and shortens the upgrade path from the ground floor through Amateur Extra. Applicants desiring HF privileges will only have to pass a 5 WPM Morse code test, and there are fewer written examinations and total questions.

Current Amateur Radio study materials remain valid at least until the new rules become effective in April.

The new licensing regime has four examination elements: Element 1, the 5 WPM Morse code test; Element 2, a 35-question Technician test; Element 3, a 35-question General test, and Element 4, a 50-question Amateur Extra test.

## **Spread Spectrum Inventor, Actress Hedy Lamarr, Dies**

*(reprinted from the ARRL)*

Hedy Lamarr, the sultry, sexy screen star of the 1930s and 1940s who also conceived the frequency-hopping technique now known as spread spectrum, has died. Lamarr was found dead in her suburban Orlando, Florida, home Wednesday. She was believed to be 86.

Born Hedwig Kiesler in Austria, Lamarr came to the US in 1937 after being signed by MGM. She debuted on the American screen in 1938, co-starring with Charles Boyer in *Algiers*. Among her most successful films was the 1949 *Samson and Delilah*, directed by Cecil B. DeMille.



In her 1992 book *Feminine Ingenuity*, Lamarr describes how she came up with the idea of a radio signaling device for radio-controlled torpedoes that would minimize the danger of detection or jamming by randomly shifting the frequency. She and composer George Antheil developed the concept and received a patent for it in 1942.

The concept never saw fruition during World War II, but when the patent expired, Sylvania developed the idea for use in satellites.

Spread spectrum also has found applications in wireless telephones, military radios, wireless computer links, and Amateur Radio experimentation.

Lamarr lived in an Orlando suburb in recent years and shunned publicity.

A more-detailed version of Lamarr's role in spread spectrum is described in the IEEE book *Spread Spectrum Communications*, published in 1983.--thanks to André Kesteloot, N4ICK and Bill Ricker, N1VUX

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**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)



## **FROM THE MAIL BAG:** *by Rod Scott KE6PI*

During the last month, we received a package from the 6<sup>th</sup> District QSL Bureau with three new QSL cards. The oldest one, dated 19 Nov 98, was from IK1XPK in ASTI ITALY. It was a 10 meter contact. I don't know who made the contact since I couldn't find the log book. (We will set up a better system for the logs.) So if any one recognizes the contact and wants the card it is in the S shack. The other cards are somewhat more interesting. The first one was from Korea and had the call sign D99AFDF. This call was for a special station that was set up at the Korean amateur radio museum located in the Kon Yang University, Seoul. The station operated only from March 15 to June 30, 1999. The card is dated 1 June and the contact was on 15 meters. The final card in the set was from Canada, and was a field day contact. What makes it different is the QSO was a RTTY contact. If you are interested in any of these cards they are in the S shack. Finally, we have already received four QSLs from the ARRL's 10 meter contest.

As for magazines, we received both the Nov/Dec AMSAT Journal and a flyer from the San Diego Repeater Association. It looks like AMSAT Phase 3D will be launched aboard an ARIANE 5. When is unknown but it will be aboard the *first suitable* flight. We also get QST, CQ and others magazines so if you interested in any of these items they are in the S shack. I will try to be there Wednesdays from noon to one.

Rod Scott KE6PI

## **Fire destroys HRO Anaheim store**

Sunday morning, 23 January. Here are the facts:

The store is completely destroyed with essentially nothing salvageable.

The fire started in the dental office which was just to the south of our store. Naturally fire investigators were on-scene, but no conclusions have been drawn as to the cause of the fire.

We have already made arrangements to re-open as soon as possible. The specific schedule is unknown at this time (1530 Sunday), but we expect that reopening will take place sometime in the coming week. Arrangements have already been made for our new location to be in the same block on N.Euclid.

While all the inventory was destroyed, we are grateful that no one was injured and that no collateral damage occurred to any surrounding residential structures.

The key to our ability to operate in a quasi-normal fashion will be the provision of power and telephone service. Specific schedules will not be available until sometime on Monday, 24 January. Rest assured however, that HRO Anaheim will be up and running just as quickly as humanly possible.

Please pass along this information as you see fit and be sure to help quash any rumors that do not mesh with the facts as I've stated them above.

We thank you for your patience for the next few days.

73,

Bill Scholz, W1HIJ  
HRO/ANAHEIM

# 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:

