

June 1998

Volume 98 Number 6

## Editor's Corner:

Hello everyone, I am your temporary Crosstalk editor for two months while Duane Park is in Korea working on the KOMPSAT satellite. Unfortunately Duane won't be doing any amateur radio while he is there, South Korea does not have a reciprocal operating agreement with the US. But I am sure he will have some interesting stories to tell when he gets back. Duane has been doing a great job of getting the Crosstalk to everyone at the beginning of the month, so I hope I can continue his excellent record. If you have any material or information that you would like to put in the newsletter give me a call (814-1937), e-mail me (jim.harrison@trw.com), or send to the club address shown on the back page. See you at Field Day! *Jim Harrison K60UE* 

# **FIELD DAY** June 27, 28

From the Field Day Chairman, John Shepherd, KO6MZ

Field Day is just a couple of weeks away (June 27 and 28) and things are going well. Most band captains are signed up, the location (Friendship Park) is confirmed, food is being planned, and we have a new 30 foot aluminum tower. We still need a UHF/VHF captain. There have been some changes to the FD rules this year. UHF/VHF is not a "bonus band." We will probably be operating Class 7A as we have in the last several years. We were second in class 7A last year. The Raleigh Amateur Radio Club in North Carolina beat us out last year but we plan to be number one in '98.

Most of the arrangements are the same as last year. We will be loading the equipment and antennas about 10 AM Friday instead of waiting until noon. We need all the help we can get out at the Conex Box west of Building O3 - come on out if you can. This should give us a little longer to get the antennas up and maybe Ray can get an extra few hours of sleep on Friday night! We will get on the air at 11AM on Saturday and operate until 11AM on Sunday. We also need help for tear down - please give us some help - just show up at noon on Sunday if you can help. We need some good CW ops and a "real novice" if we can find one. The list of band captains is attached. If you would like to operate, set up, tear down, or just enjoy Field Day with the club give a band captain a call and come on out.

Friendship Park is on the Palos Verdes Peninsula overlooking the LA Harbor. It is off of Western Ave. above the city of San Pedro. Dave Kunkee, K0DI has promised to bring his blimp so we can get some real antenna height!

# **TRWARC** Monthly Calendar of Events

First Tuesday of each month	5:30 pm	Executive Board Meeting (All Club Members are invited)		
Second Tuesday of each month	5:30 pm	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	<b>T-Hunt</b> Swap Meet Parking Lot - 144.72 MHz		

## **Reoccurring 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 Night (Schedule permitting)	6:30 pm	<b>TRW Amateur Radio Club Net</b> The Bob and ? Show - Check In on 2 Meter Repeater
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 (previously The Computer Marketplace Computer Shows) Hours: 10:00 to 17:00

**POMONA** \$8 admission

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

May 9 & 10 (Sat. & Sun.)

May 30 & 31 (Sat. & Sun.) 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 admission

May 2 (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 admission

May 3 (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. @ A.B. Miller High School, Walnut & Olenander in Fontana Talk-in 145.480 (-600 pl=77.0hz)

El Cajon ARC - 1st Sat. ea. mo. @ Santee Drive-in Theater, Woodside Ave. @ Hwy 67 in Santee

## Field Day, contd.

#### What is Field Day?

The purpose of Field Day is to learn to operate in abnormal situations under less-than-optimum conditions. A premium is placed on skills and equipment developed to meet the challenge of emergency preparedness and to acquaint the public with the capabilities of Amateur Radio. For more information and the complete rules see the ARRL's web site at http://www.arrl.org/contests/announcements/98/rules-fd.html

#### The rules:

The goal is to contact as many stations as possible on any or all amateur bands (excluding the 30, 17, and 12m bands). This year the rules are a little different than in past years. A station may be contacted three times on each band, using voice, CW, and digital. Each voice contact counts one point, each CW contact counts two points and each digital contact counts two points. This puts a lot of emphasis on digital modes (RTTY, packet, etc.). There are numerous bonus points for things like running on full emergency power, solar power, public relations, and making at least one satellite QSO.

The class that a station competes in is determined by the number of transmitters that are operating simultaneously. W6TRW usually operates 7A (seven transmitters, club operating portable). However we can also operate one additional VHF/UHF station, and one novice/technician-plus station without increasing our class number.

Field Day Chairman		John Shepherd KO6MZ x38386			
	and Captains: 160m CW and SSB 80m CW and SSB 40m CW 40m SSB 20m CW 20m SSB 15m CW 15m SSB 10m CW 10m SSB 6m CW and SSB HF digital modes VHF/UHF	John Shepherd KO6MZ x38386 - Doug Tice KK6OU Doug Tice KK6OU Mike Worshum WB6K (310) 679-4354 George Eldridge Dave Lee WA6MPF x47013 Doug Tice KK6OU Nina Whiddon KN6FL x39351 - Elizabeth Kunkee KS4IS x30524 Elizabeth Kunkee KS4IS x30524 -			
• • • • • • • • • • • • • • • • • • • •	Novice/Tech+ station Bonus Points Food Set-up Take-down Power Friday Security	- Wendy Crawford KQ6CG (310) 354-1320, 374-0795 Marilyn Oltmans John and Ray - Wayne Hogencamp KI6GM (310) 329-7457 Robert KF6EXC			

If (heaven forbid!) you can't participate in Field Day, you can at least get on the air and hand out some points. We get points for contacting any amateur station, whether they are taking part in Field Day or not. So the operators will be very appreciative of anyone who answers their CQ, especially on Sunday when they have already contacted every other Field Day site and they are scouring the bands in search of any call sign that they haven't heard before. And don't be put off by the strange numbers and letters that they are sending back and forth. The official exchange for Field Day stations is their operating class and the ARRL section that they are operating from. For example, if you contact W6TRW they will say that they are 7A LAX, which means class 7A operating from the LA County section. If you are at home just say that you are 1D (one transmitter, home station), if you are in your car you are 1C (one transmitter, mobile). If you are anywhere in LA County you are in section LAX, if you are in Orange, Riverside, or San Bernardino Counties you are in section ORG. So even if you can only get on the air for a few minutes, you now have no excuse. All contacts must be point-to-point, no contacts thru repeaters, digipeaters, etc. FM voice simplex frequencies used are 146.55, 446.00, and 1294.5 MHz.

## **<u>June VHF QSO Party</u>** Saturday June 13 and Sunday June 14

The weekend of June 13 and 14 is the 1998 ARRL June VHF QSO party. It starts at 1800Z Saturday and ends 0300Z Monday, which is 11AM Saturday to 8PM Sunday Pacific Daylight time. This contest is for all bands from 6m up, so it is really a VHF and UHF contest.

Since this contest is just two weeks before Field Day, I am sure we are all going to be pretty busy. So I am suggesting that we operate this contest from the Building S shack, so that we don't have to do any complicated set-up or field operation. We have rigs in the shack for all bands up to 23cm so we can be pretty competitive. There has been a suggestion to get the Field Day 6m antenna and set it up temporarily on the roof of building S for the 6m station. As mentioned later in the newsletter, there have been some good 6m openings lately.

For all technician class licensees this is a fun way to get some experience with DXing and SSB operation. It is also a good way to get some practice for Field Day. Contacts on FM count also, but no contacts are allowed thru repeaters, all contacts must be simplex. Standard simplex frequencies are 146.55, 446.00, and 1294.5 MHz.

For scoring, each 6m or 2m contact counts one point, each 222 or 440 contact counts 2 points, each 902 or 1200 MHz contact counts 3 points, and each 2.3 GHz or higher QSO counts 4 points. In the shack we have 6m, 2m, 220, 440, and 1200 so we have most of the bands. Since 1200 is not very populated, I think a good strategy would be to have a couple people in the club who have 1.2 GHz rigs operate as rovers and drive around to different grid squares. We could really increase our score this way, since every new grid square on each band multiplies times all of the points from <u>all</u> bands. In other words, each grid square worked on 1200 MHz adds one to the total number of grid squares which is then multiplied times all of the QSO points from all bands.

Anyone interested in working this contest, contact Jim Harrison, K6OUE at (310) 814-1937 (x41937).

And if you are not competing in the contest, you can still get on the air and hand out some points! Competing stations get points for every QSO with an amateur station, whether that station in competing or not. So believe me, the contesters will be appreciative of any contact, especially towards the end of the contest period when they have already worked every other contester and they are desperately listening for a call sign they haven't heard before. I know what intimidated me at first was hearing the contesters exchanging strange numbers and letters, so I didn't call because I didn't know what to say. Every contest has an exchange that must be made for the QSO to count for contest points. In this contest the exchange is just call sign and grid square, a signal report is not even required. Grid squares are a locating method used for VHF/UHF DXing, the entire Earth is divided into grid squares that are 1 degree of latitude by 2 degrees of longitude and every grid square is given a designator. For more information on grid squares see http://www.arrl.org/locate/gridinfo.html. If you are in the South Bay or Long Beach your grid square is DM03, Orange County east of Beach Blvd. is DM13, Santa Monica, downtown LA and Pasadena are in DM04, and West Covina and parts to the north and east are in DM14. That should cover just about everybody who is in the club and if you are in doubt, just tell the contester what city you are in and they can figure out the grid square. So even if you can only turn on your radio for a few minutes that weekend, tune it to the SSB or FM simplex frequency and give out a few points, it's a fun way to make some new contacts.

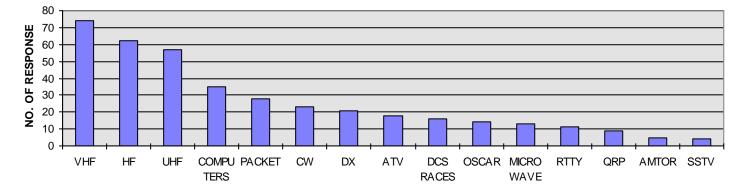
## **Dayton Hamvention**

As I write this, the Dayton Hamvention is in full swing. Greg Shreve, KE6YEX is in Ohio visiting his parents and is taking advantage of the opportunity to attend the convention. He will have a full report in the next issue of Crosstalk.

## Notes from the Executive Board Meeting

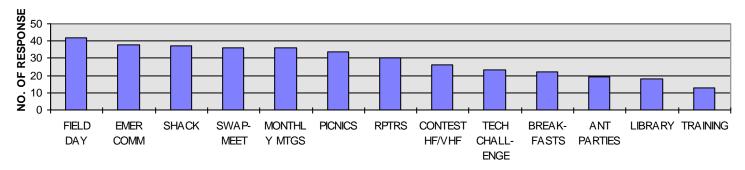
The monthly TRW Amateur Radio Club Executive Board Meeting was held on May 5, 1998 at 5:30PM. Following are some notes from the meeting.

- Publicity Elizabeth Kunkee wrote a blurb about the club which will go in the Jun/Jul SEA Magazine.
- SEA Representative There will be an SEA Membership drive on Wed. July 15.
- Swap Meet had a near record turnout. ICOM brought their motor home filled with new radios.
- Librarian Steve Papa got a set of QSTs going back to 1960 and 175' of 75 ohm hardline donated by Herb Gleed. Steve will use the magazines to complete our collection and throw the rest away. The hardline will be kept for any future club VHF/UHF use. Ray Enriquez says he knows a lab that can put the connectors on for no cost.
- Shack Dave Nelson is still working on creative ways to acquire an Alpha HF legal limit power amp and save the club some money.
- ECT Van Diamond plate has been installed on roof. Have strobe lights, will install. Ray Enriquez having Motorola give demo of a clip-on mini cam and video transmitter. Ray is also getting a new Motorola radio for the van at no charge.
- ECT Bad news: will lose the room in R3 for the ECT shack. Good news: Rick Ervin is getting us space in the Emergency Operations Center downstairs in R3. This is within the earthquake proof vault with emergency power and right next to where the action would be in an emergency. Rick will get a wall put up so we will have a separate room with our own access door from the hallway, but we can open a door into the EOC when necessary also. Rick has also made provisions for running our cables to the roof for antennas.
- New Business approved a request from Craig Gullickson to subscribe to the Southern California DX Packet Cluster at \$25 per year.
- Membership Chairman The membership report for April 1998 shows the breakdown of member licenses, operating interests and club activities. There is no surprise that things like Field Day, VHF, HF, club shack are high interest items. Well, now we know how many people care about what.



#### **OPERATING PREFERENCES**

#### **ACTIVITY PREFERENCES**



## A Report from the International DX Convention (by Craig Gullickson N6ED)

(Craig attended the International DX Convention in Visalia, CA on May 1 thru 3. For more information see http://www.primenet.com/~scdxc/dxconv98.html)

The DX convention in Visalia is a great place to meet many of the active DXers from California and the Western states. Sprinkled among the crowd at the Visalia Holiday Inn, are Hams from around the world as well coming from as far as Europe, Japan, and Central America. Many of the year's great DXpeditions are also represented by the brave people who chose to go out and "be DX". Slide shows and movies of their trips are typically on the slate of events to follow. If you are more into the hardware side of DXing, there is plenty there as well with merchants showing off the latest and greatest stuff for the "big guns" to salivate over. If competition is in your blood, there are CW copying contests and trivia challenges as well. The organizers have made the convention a place for all people to go and have fun.

Personally, I enjoyed seeing the presentations from the expeditions most this year since I had worked them all from the S-shack. Seeing the pictures and listening to the stories of hardship and triumphs made my QSO's all the more memorable. I even had the great opportunity of sitting at the head banquet table next to Neville, G3NUG who was team leader of the Spratly Island DXpedition 9M0C. I worked them 17 times on every possible mode (CW, SSB, RTTY) from 10-80 meters, only missing them on 160! (How about that 1/4 wave vertical on 160 Dave?) I had plenty of time to visit with all my buddies from the USA as well between other activities. Many war stories were traded and new strategies were planned for the future. "Where do we go next?" was asked by many. I say P5 North Korea!

There is a huge raffle held hourly Saturday with grand prizes at the banquet Saturday night and during brunch on Sunday morning. I picked up an Alinco 440 HT and Eznec, the software for yagi design and optimization. Grand prizes included a Kenwood TS950SDX, Yaesu FT1000MP, Icom 706 MKII, Henry 2k Classic HF Amp, Towers (2), various antennas, and an Alpha Amp gift certificate.

This year's convention was a real blast for everybody. I look forward to returning next year.

### **DX News**

If anyone has had some interesting QSO's either from the club station or home, let us know!

#### - HF-

Craig Gullickson, N6ED gets the DX of the month award for both distance and an unusual country. From the Building S club shack he contacted 3B7RF, a DXpedition to the St. Brandon Archipelago in the Indian Ocean somewhere east of Madagascar. This is just about the opposite side of the Earth from us, so is about as far from TRW as you can possibly get. He contacted them on 17m and 40m SSB via long path. For some interesting information DXpedition on the see their web site at http://www.3B7-Brandon.ch/Information/Default.htm

#### -VHF-

Six meters has also been having some openings. On the evening of May 5, Craig contacted a station in Vail, Colorado and one in Denver. He also heard a station in Montana. Also, on May 16 during the 6m Spring Sprint, Jim Harrison, K6OUE contacted stations in Midland, Texas and Tacoma, Washington. And this is with only the 6/10m vertical antenna on building S. Just think what we could do with a 6m beam!

#### -UHF-

On April 17, Jim K6OUE, Don Heflinger WA6FEL, and Greg Shreve KE6YEX checked into the weekly 1296 MHz SSB net sponsored by the Western States Weak Signal Society. K6LGL is the net control in Santa Monica. During the net we had a QSO with N6XQ who is on Point Loma in San Diego, a distance of about 105 miles from TRW. I thought that was a pretty impressive distance for 1296 MHz until I got the next issue of QST and saw that N6XQ holds the North American distance record for 1296 MHz: 4142 Km from Baja California to KH6HME in Hawaii. He also holds the distance records for 903 MHz, 432 MHz, and 222 MHz.

### **Contest Corral**

Let's hear about member's contest experiences, either with the club, on their own, or with other groups!

#### The ARRL Spring Sprints, by Jim Harrison K6OUE

The ARRL Spring Sprints were held in April and May. This is a series of short contests on the VHF and UHF bands which are held every year. Apparently they were originally meant to be temporary just to try out the concept of holding VHF/UHF contests, but they have remained popular enough that the ARRL has continued to sponsor them. They are a great way to get your feet wet if you haven't contested before, or to just warm up for the big contests coming up in the summer. Each sprint covers a single band and is only 4 or 5 hours long, so it doesn't require a marathon effort.

The 2m sprint is held on a Monday from 7PM to 11PM local time. The 222 MHz sprint is the following Tuesday evening, 432 MHz the next Wednesday evening, then the 902, 1296, and 2304 sprints are run at the same time on the following Saturday morning, then the 6m sprint is the next Saturday afternoon.

Since I had recently completed my ATV installation at home, I have a 440 MHz yagi on a rotator and a 100W 440 MHz power amp, so I thought it would be fun to try the 440 MHz sprint from home. The serious contesters operate mostly SSB so that they can get more distance and pick up more grid squares. The only transmitters I have at home are an ATV transmitter and a dual band handheld which of course has only FM capability. But my 6 element yagi is mounted vertically which is correct for FM and I have the 100 watt amplifier, so I thought maybe I could be competitive. Well, lets just say it was a learning experience. If I had been on the top of a mountain I would have probably done pretty well, but the flatlands of Orange County just don't hack it. I could hear the guys that had driven up to mountain tops 5/9, but I couldn't even hear the people they were talking to most of the time. I ended up making 19 contacts over the four hours, and only got 3 grid squares. So, I discovered that at UHF power just can't make up for altitude.

Well, I had learned my lesson, so for the 1296 MHz sprint I borrowed the 1200 MHz 10W all-mode transceiver from the S shack and took it up to Greg Shreve's (KE6YEX) house early Saturday morning (this sprint runs from 8AM to 1PM). Greg's house is in San Pedro but is part way up the PV hills overlooking LA Harbor. In fact, he is just below Friendship Park. Greg has a lot of ATV antennas, including a very impressive 1200 MHz 34 element loop yagi which must be about 10 feet long. We switched it from vertical to horizontal polarization for SSB, and set up a 14 element loop yagi that Greg has for portable ATV, vertically polarized for FM. I think this was a good location, but the 23cm band is just not very active and a lot of the band regulars did not seem to be on the air that morning. I made 4 SSB contacts in 2 grid squares and 3 FM contacts. Two of the FM contacts were with Frank Bartel KC6ABS who just happened to be listening to the FM simplex frequency while he was nice enough to drive over to the other grid square to give me another contact. From our location the FM simplex contacts were very good, so I think a good strategy for future 23cm efforts would be to get a bunch of people with 1.2GHz FM rigs to drive around to all the local grid squares and then contact them. For the last hour of the contest we drove over to the other side of PV to try to get coverage to the North and up the coast, but no new contacts were made.

The six meter sprint was on Saturday May 16 from 4PM to 8PM. I didn't have time to do anything ambitious, so I just went in to the Bldg. S shack to see how I could do from there. We have a combined 10m/6m rig which

puts out 100W, but the only 6m antenna we have is a 6m/10m vertical. The SWR meter in the rig said the VSWR was worse than 2:1, but Dave Nelson has measured it with an HP analyzer and says it is better than that, so maybe the meter in the rig is not accurate. And for SSB work a horizontally polarized antenna would be much better. Anyway, at first all I could hear were local stations, but about 45 minutes into the contest I hear an N5 call pretty clearly. At first I figure that he must be transmitting locally, but then I hear him giving others a grid square of DM91! I thought I wouldn't have a chance of getting him thru the pileup, but I tried anyway and he acknowledged me! He said he was in Midland, Texas, and he was mobile! Then after a few minutes he faded away into the noise again. There were a couple of other openings during the contest that just lasted a few minutes. In the very last minute of the contest I was tuning around to odd frequencies and I heard KB7WVY in CN87! I quickly called him and managed to get him right as the clock ticked over to end the contest. He was in Tacoma, Washington running 150W. Many people stayed on the band after the contest because there was definitely a good opening. I heard stations in Oklahoma and Montana, but I was not able to raise them.

## A Threat to the 70cm Band

QST de W1AW ARRL Bulletin 30 ARLB030 From ARRL Headquarters Newington CT May 7, 1998 To all radio amateurs

SB QST ARL ARLB030 ARLB030 LMCC petition opposed

The ARRL is organizing opposition to a new threat to the 70-cm Amateur Radio band. The Land Mobile Communications Council (LMCC) has asked the FCC to immediately reallocate 420 to 430 MHz and 440 to 450 MHz from the federal government to the Private Mobile Radio Service (PMRS) on a primary basis. Amateur Radio now enjoys the use of 420 to 450 MHz on a secondary basis, and the 430 to 440 MHz segment is an international allocation. The 70-cm band is the second most popular of the hobby's VHF/UHF allocations, with substantial FM repeater and other operation in the 440 to 450 MHz segment and a variety of uses in the 420 to 430 MHz segment.

The LMCC request, based on "additional spectrum needs of the PMRS community," acknowledges Amateur Radio's use of 420 to 430 and 440 to 450 MHz, and suggests that ham radio applications can remain secondary to PMRS in those segments, but offers no explanation of how sharing could be accomplished. The LMCC says it believes the 430 to 440 MHz subband "is more important to the amateurs for use in emerging technologies such as links with spacecraft and amateur television applications."

The petition also suggests that equipment availability and technology resulting from an expanded PMRS presence on 70 cm would benefit hams "pursuing such applications as compressed video television in the 430-440 MHz band." The LMCC concedes, however, that its "most urgent need" for PMRS is voice and low-speed data applications, not advanced technologies which might come later on.

The petition also notes that PMRS already uses 420 to 430 MHz in three Canadian border cities (Buffalo, Cleveland and Detroit) and a "reduction in military use of this band is foreseen."

The LMCC also seeks allocations at 1390 to 1400 MHz, 1427-1432 MHz, and 1670 to 1675 MHz as well as 85 MHz at 960 to 1215 MHz by 2010.

Comments are due on the LMCC's Petition for Rulemaking, RM-9267, by June 1. Reply comments are due by June 15.

For more information go to the ARRL's web site at http://www.arrl.org/news/bandthreat/RM-9267/

#### And a Potential Threat to the 23cm Band reprinted from QST June 1998, Volume 82, Number 6

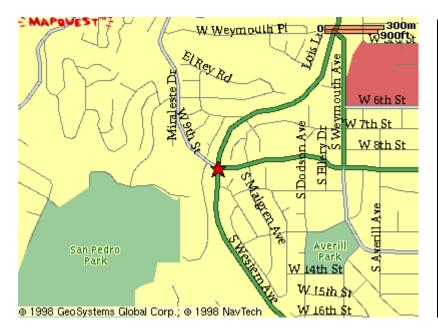
A third civilian frequency for the global positioning system (GPS) could wind up within Amateur Radio's secondary allocation at 1.2 GHz. A decision on whether the new frequency will be 1205 or 1250 MHz is expected to be made by early fall. An assignment at 1250 MHz could mean eventual loss of, or new restrictions for, amateur operations in the band 1240 to 1260 MHz. The Amateur Radio 23cm band runs from 1240 to 1300 MHz.

The Interagency Global Positioning System Executive Board (IGEB) announce in late March a decision to expand the civil capabilities of future GPS satellites by adding a new civil signal to the current military GPS L2 signal at 1227.6 MHz. This second civil signal will allow receivers to measure the time of arrival for two signals that have passed through Earth's atmosphere and correct for the distortion introduced by passage from space to Earth. But the IGEB said it also recognized that civil GPS users could benefit from the implementation of a third coded signal as well. The Defense Department says the addition of the new coded frequencies "will greatly enhance the accuracy, reliability, and robustness of the civilian GPS service."

For more information, see http://www.fas.org/spp/military/program/nav/gps.htm

## Field Day Directions to Friendship Park





Take Western Ave. south from Pacific Coast Highway. Turn right on 9<sup>th</sup> St. Turn left on Friendship Park Drive.

Or, take Harbor Freeway south to Gaffey Street in San Pedro. Turn right on 9<sup>th</sup> St. Cross Western Ave. and turn left on Friendship Park Drive.

Drive around thru the parking lot to another gate which then leads up to the part of the park where our Field Day site is located. If the gate is locked, call on the TRW 2m repeater. The park can also be reached from the RPV side.

NOTE: This map incorrectly labels Friendship Park as San Pedro Park.

## For Sale

YAESU FT-101ZD HF Radio with external VFO. \$400. Got all the manuals in case anyone wants to kn6ow. Bryan DeAro KN6OW (310) 812-4789

KENWOOD SMC-33 Speaker Mike, fits most Kenwood HT's. Has 3 programmable buttons to control radio. Like new. \$65.95 new, will sell for \$45. Jim Harrison K6OUE (310) 814-1937

## **TRW AMATEUR RADIO CLUB**

#### **ELECTED OFFICERS**

President	Rich Sauer	N6CIZ	R9 / 2873	(310) 813-5869
Vice President	Elizabeth Kunkee	KS4IS	D1 / 1024	(310) 813-0524
Secretary	Pat Anderson	KB6YPI	R7A /1265	(310) 813-6874
Treasurer	Steve Lambert	KF6KIC	R6 / 2529	(310) 812-5019
APPOINTED STAFF				
447 Repeater Autopatch	Pat Anderson	KB6YPI	R7A /1265	$      \begin{array}{l} (310) & 813-6874 \\ (310) & 813-4049 \\ (310) & 813-4219 \\ (310) & 812-2039 \\ (310) & 812-5305 \\ (310) & 813-9775 \\ (310) & 813-9775 \\ (310) & 813-9775 \\ (310) & 813-9775 \\ (310) & 813-9756 \\ (310) & 813-9751 \\ (310) & 813-1506 \\ (310) & 813-5869 \\ (310) & 813-5903 \\ (310) & 813-5903 \\ (310) & 813-0524 \\ \end{array} $
Activities Chair/Asst Swapmt	Greg Martens	N6RRY	M1 / 1275	
Crosstalk Editor	Duane Park	WA6EIK	M2N / 1368B	
Emer. Comm. Coordinator	Rick Ervin	KD6OZD	R3 / 1098	
Librarian/Asst. Postmaster	Steve Papa	KO6VF	O2 / 1715	
Membership Chairperson	Dave Nelson	AB6DU	R8 / 2144	
Past President	Bob Briggs	KD6WYQ	M7 / 2939	
Publicity Chairperson	Dave Nelson	AB6DU	R8 / 2144	
QSL Manager	Bryan DeAro	KN6OW	120 / 1020B	
S.P. Packet/Internet Sysop	Chris Wachs	WA2KDL	R7A / 2100	
SEA Representative	Nina Whiddon	KN6FL	O1 / 2020	
Swap Meet Manager	Rich Sauer	N6CIZ	R9 / 2873	
Technical Chairperson	John Cheatham	KE6OJM	R9 / 2477	
Training Chairperson	Bryan DeAro	KN6OW	120 / 1020B	
Trustee of W6TRW License	Elizabeth Kunkee	KS4IS	D1 / 1024	

TRW/ARC Hotline (Club Answering Machine)(310) 813-8569W6TRW 2 Meter Repeater (Open Repeater)145.32 (-600)W6TRW UHF Repeater (Open Repeater / Closed Autopatch)447.00 (-5 MHz) PL 100 HzW6TRW-3 Packet Radio Internet Gateway and BBS (1200 Baud Port)146.745 (-600)W6TRW Internet Home Pagehttp://w6trw.sp.trw.com/w6trw/

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

## **FIRST CLASS**

Deliver To:

