# CROSSTALK
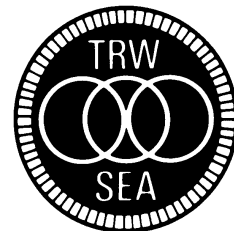
## News Bulletin of the TRW Amateur Radio Club

## Editor's Notes:

This issue is a "transitional" issue, I'm trying to get caught up, so that the delivery to you is at the beginning of the month, instead of the current "end" of the month.

## Electron is 100, transistor is 50:

Scientists recently marked the 100th anniversary of the 1897 presentation before the British Royal Academy of Sciences of a paper by physicist J. J. Thompson that first recognized the existence of the electron. In his presentation, Thompson described how he discovered, experimentally, that cathode rays were negatively charged particles which he dubbed electrons. The transistor turns 50 years old this year. It was invented by Bell Labs (now Lucent Technologies) in December, 1947. It costs one million times less to make a transistor today than it did 30 years ago. --Wired News/Jim Fitton, W1FMR

# Field Day 1997

There is a lot of activity going on for this year's Field Day, if you want to participate, please contact the "Field Day Captains", it's a lot of fun, and if you're new to the hobby, it will help you in getting your feet wet and just getting on the air and making some contacts, even if you don't want to operate, there is always other things that you can help out with, and for those of you who aren't familiar with Field Day, it is one of the biggest events for the club, here is some information that may be helpful;

1) Eligibility: Field Day is open competitively to all amateurs in the ARRL/RAC Field Organization (plus Yukon and NWT). Foreign stations may be contacted for credit, but are not eligible to compete.

2) Object: To work as many stations as possible on any or all amateur bands (except 10, 18 and 24-MHz bands) and, in doing so, 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.

3) Dates: **June 28-29, 1997.**

4) Field Day Period: From 1800 UTC Saturday until 2100 UTC Sunday. Class A and Class B (see below) stations who do not begin setting up until 1800 UTC Saturday may operate the entire Field Day period of 27 hours. Others must begin their setup no earlier than 1800 UTC Friday, and may operate no more than 24 consecutive hours; ie, once on-the-air Field Day operation has started, it must end 24 hours from that point.

5) Entry Categories: Field Day entries are classified according to the maximum number of simultaneous transmitted signals, followed by the designation of the nature of the individual or group participation. Below 30 MHz, once a transmitter is used for a contact on a band, it must remain on that band for at least 15 minutes. During this 15-minute period, the transmitter is considered to be transmitting a signal, whether it is or not, for purpose of determining transmitter class. Switching devices prohibited.

**Further infomation can be obtained from the Field Day Captains, or the ARRL** *(http://arrl.org)*

# 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)** |
| Last Friday of each month | 12:00 noon | **Technical Chairman's Meeting** Building S Hamshack |
| 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 |

## 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** |
| Every Thursday Night | 6:30 pm | **TRW Amateur Radio Club Net** 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
April 19 & 20 (Sat. & Sun.)  May 17 & 18 (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
April 5 (Sat.) May 3 (Sat.) May 31 (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
April 6 (Sun.) May 4 (Sun.) June 1 (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
**Don't forget: ACP Super Sale (ACP Computer Swapmeet) May 18th**

*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)
**CMRA** - 3rd Sat. ea. mo. @ DeVry Institute, 901 Corporate Center Dr. **Pomona** - Talk-in 146.175 (+600)
**El Cajon ARC** - 1st Sat. ea. mo. @ Santee Drive-in Theater, Woodside Ave. @ Hwy 67 in **Santee**

# Newsline

by Gordon West

March 28,

## "NEW 'ARK ' FOR <u>WB6NOA</u>"

After 20 years of faithful emergency communications service, the Gordon West black station wagon will retire and <u>"NOA's ARC" Amateur Radio Communications vehicle will take over.</u> Gordo indicates the new ARC unit will be used for both classroom demonstrations as well as VHF/UHF/microwave DXpeditions.

"This new unit will be added to our water-grid arsenal, now allowing us the capabilities of attending regional ham shows, and have all of our microwave equipment onboard," comments Gordon West, WB6NOA.

<u>"It will also serve as an emergency communications vehicle</u> for our local American Red Cross chapter, plus emergency communications to the City of Costa Mesa," adds West.

West's new communications vehicle is built around a Chevrolet **22'** G30, 1-ton, extended van chassis with a 7.4 liter 454 CID EFI V8 gas engine. There will be a 4.5 KW generator installed beneath the rear radio operating area to provide plenty of power for all amateur radio equipment onboard.

The upper portion of the vehicle is built by Home & Park Motorhomes in Ontario, Canada, called "Roadtrek". The roof is all fiberglass, but will contain <u>built-in copper screening</u> for good RF shielding between the antennas and the passenger compartment.

<u>"All of the antennas will feature lip-mount and gutter-mount technology from the leading antenna manufacturers like Diamond and Comet. We will also have a motorized antenna lay-down mount</u> from Maldol," comments West.

His idea of "no holes" was to specifically test the new generation of antenna mounts that secure firmly to almost any ridge, lip, or metal edge. "We will even run a full-length, <u>high-frequency whip off of the rear door tire mount,</u> and again, we will go only with off-the-shelf antenna mounts available at all ham radio stores," adds West.

Built into the screen area separating the metal sides of the vehicle and the fiberglass roof will be an automatic high-frequency antenna coupler with a long-wire attachment. "This could allow us to string up a long wire, using the screen as well as the chassis sides of the vehicle for a great ground plane system," adds West.

"This would allow us to put a strong signal on 75 meters, the coordination band for weak signal tropo and meteor scatter work," comments West.

Long-boom Yagi antennas will be carried on the inside of the vehicle. The booms would be separated so as not to exceed the length of the vehicle. The Yagis would operate either fixed direction or, for now, via "Armstrong" rotor system.

When it comes to the amateur radio equipment on the inside, West claims that every manufacturer of amateur radio equipment will be represented.

"We will have 160 meters through 10,000 MHz, and each and every manufacturer will have at least one operating unit in this communications vehicle," comments West. "This will allow students to enjoy 'hands on' exposure to every brand sold through dealers or direct, and this way our mobile classroom will support everyone in the industry equally," adds West.

Plans also call for large magnetic signs, indicating AMATEUR RADIO ON THE AIR so that the vehicle may also travel as an amateur radio information center. "We plan to make this unit very visible during amateur radio operating events like Field Day and Simulated Emergency Test. We will also carry amateur radio information packages, including amateur radio magazines, ARRL information sheets, ham publications, along with manufacturer frequency charts and 'Welcome to Ham Radio' guides," finalizes West.

There will be 3 operating positions inside the vehicle--the front for high-frequency, mid-section for VHF and UHF, and the rear area that will carry satellite and data equipment.

"I look forward to working many stations on the air from NOA's ARC," smiles West.

Plans call for a West Coast "shakedown", and then looking into other engagements throughout the rest of the country. Gordon West's wife, Suzy West, N6GLF, looks forward to driving while "Gordo" scurries around inside keeping everything on the air "ARC Mobile".

The Inland Empire Council of Amateur Radio Organizations Presents The

# ARRL SOUTHWESTERN DIVISION CONVENTION

This year's theme, *Hi Tech - Hi Touch*   explores Ham Radio's role in the exploding technologies involved in the information revolution.

# HAMCON '97
## THE WEEKEND OF SEPTEMBER 12, 13, & 14, 1997

**GRAND BANQUET SPEAKER:** Astronaut **Dr. Ron Sega**, KC5ETH, Colonel in the United States Air Force Reserves. Dr. Sega left NASA on July 1, 1996 to become Dean of the College of Engineering and Applied Science at the University of Colorado at Colorado Springs, Co.

Colonel Sega was a Mission Specialist on shuttle mission STS-60, launched on February 3, 1994, the first joint U.S./Russian Space Shuttle Mission. From November 1994 to March 1995 he was the NASA Director of Operations, at the Gagarian Cosmonaut Training Center in Star City, Russia. He was also a Mission Specialist on Atlantis shuttle mission STS-76, launched on March 22, 1996, the third docking mission to the Russian space station Mir. Among other things, this shuttle mission included transporting the first U.S. woman astronaut to spend time on board the Mir, Dr. Shannon Lucid. KC5ETH was the Payload Commander for this mission and lead astronaut on Biorack, a small multipurpose laboratory located in the space lab module used for technology development, fundamental research into plant and animal cellular function, and environment characterization.

**DX BREAKFAST:** Dr. Vince Thompson, M.D., K5VT, will host the DX breakfast on Sunday morning. K5VT is well known for his DX activities in the ham radio community. He put on a fascinating program at last year's ARRL Convention held in Arizona covering his DXpedition to Benin, TY5A.

**ADDITIONAL HIGHLIGHTS:** Dave Bell, W6AQ, as Master of Ceremonies at the Grand Banquet ~ Featured Speakers ~ ARRL Conferences ~ Ladies Programs ~ **VE TESTING** ~ Prizes Galore ~ YOUTH ACTIVITIES ~ Swap Meet and T-Hunt on Sunday ~ **WOUFF HONG** ~ **EXHIBITS**, all of the major manufacturers and distributors ~ and much, much more.

For details and information contact Joe Magaditsch, KO6XB, Sect - Treas, IECARO at:
TELEPHONE:   909-685-7441   OR WRITE:   IECARO
FAX:       909-360-3484             9244 Big Meadow Rd.
                                    Pedley, Ca. 92509-4972
E-Mail       http://www.ham-radio.com/hamcon/

**TALK- IN FREQUENCIES:** Two Meters, 146.880 (-) PL 146.2    (Local)
                                     146.850 (-)         (Wide area)
1.25 Meters, 224.340 (-) PL 156.7 and UHF 448.075 (-) PL 156.7    (Wide area)

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# HAMCON '97
# ARRL SOUTHWESTERN
# DIVISION CONVENTION

THE **RIVERSIDE CONVENTION CENTER AND HOLIDAY INN**, ONE BLOCK NORTH OF THE HISTORIC MISSION INN, 5TH STREET BETWEEN MARKET AND ORANGE, DOWNTOWN RIVERSIDE ~ SEPTEMBER, 12, 13, 14, 1997

**HOTEL INFORMATION:** (Prices do not include state tax or Riverside city room/bed taxes.)
Be sure to make your reservations as early as possible (space is limited), and mention you are with the American Radio Relay League to get the special convention rates.

**HOLIDAY INN**          3400 Market Street, Riverside, California 92501
                         $ 62.00  Single / Double, $ 72.00 Triple / Quadruple Occupancy
For reservations call:  (909) 784-8000

**MISSION INN**          3649 Seventh Street, Riverside, California 92501
                         $ 69.00 Single / Double Occupancy.  $ 15.00 for additional except
                         children under 18 years stay free with adults.
For reservations call:  (800) 843-7755 or  (909) 784-0300 ext. 850

**COURTYARD**            1510 University Ave., Riverside, California 92507
**MARRIOTT**             $ 59.00 Single / Double, $ 69.00 Triple / Quadruple Occupancy
For reservations call:  (800) 321-2211 or  (909) 276-1200

**HAMPTON INN**          1590 University Ave., Riverside, California 92501
                         $ 57.00 Single / Double Occupancy
For reservations call:  (800) 426 7866 or  (909) 683-6000

**RANCHO JURUPA**        4600 Crestmore Road, Riverside, California 92519  (CENTRALLY LOCATED)
**R.V. PARK**            $ 16.00 per day for two people, $ 1.00 each additional up to six per site.
For reservations call:  (800) 234-PARK or  (909) 684-7032 for more information.

Return the form below to:  Joe Magaditsch, KO6XB ~ 9244 Big Meadow Road
Pedley, California 92509-4972 ~ FREE  LOGO PIN WITH EARLY REGISTRATION!

-------------------------------------------Fill in, Cut off and return this form -----------------------------------------------

Name _____ Call _____

Mailing Address_____

City _____ State _____ Zip _____

Additional Guest _____ Call _____

|  | QUANTITY | | TOTAL |
|---|---|---|---|
| EARLY BIRD REGISTRATION  [by May31, 1997] | _____ | @ $ 10.00 | $ _____ |
| PRE-REGISTRATION   (from 5-31 to 8-31, 1997) | _____ | @ $ 12.00 | $ _____ |
| GENERAL REGISTRATION  (after 8-31-97, 1997) | _____ | @ $  15.00 | $ _____ |
| BANQUET  ( Limit 500 ) | _____ | @ $  25.00 | $ _____ |
| LADIES LUNCHEON | _____ | @ $ 15.00 | $ _____ |
| SUNDAY DX BREAKFAST | _____ | @ $ 15.00 | $ _____ |

Make checks payable to IECARO, and please do not put more than two people on one form.  TOTAL    $ _____

## HAMS ABOARD SHUTTLE FLIGHT; KB5UAC TO BE ACTIVE FROM MIR

Ham-astronaut Mike Foale, KB5UAC, took off on the space shuttle Atlantis Thursday, May 15, to swap places with colleague Jerry Linenger, KB5HBR, aboard the Russian Mir space station. The mission is the sixth docking with the Mir space station. During the STS-84 pre-flight press conference, Foale talked about ham radio and his stay aboard Mir. Foale is scheduled to remain aboard Mir until September.

Other hams on the STS-84 crew include Commander Charles Precourt, KB5YSQ, and Mission Specialists Edward Lu, KC5WKJ, Carlos Noriega, KC5WKK, and Jean-Francois Clervoy, KC5WKG. The Atlantis is carrying badly needed replacement equipment for the Mir space station, including a new oxygen-generation unit.

Foale said he took his ham radio exam in preparation for the STS-56 shuttle mission. "My commander then [Ken Cameron, KB5AWP] was a pretty serious radio ham, and he encouraged the whole crew to do it," Foale said. "Since then, I've enjoyed taking part in those activities, and I do look forward very much to using the ham radio on the Mir throughout my stay there to talk to anybody who can speak to me in either English, American, or Russian."

Foale said he's open to talk about anything and with anybody. "I really enjoy having slightly longer contacts than just the brief collections of QSOs we do on shuttle. As a long-duration crew member, I'm hoping that [hams] will allow me to talk longer with them, so I can have some contact with them and their countries and understand the people's conditions where they live as I fly over them."

Meanwhile, NASA says its Shuttle Web will provide continuous audio and video coverage of the STS-84 shuttle-Mir mission in a second test of the latest technology for streaming video over the Internet. Working with Technology Interface Inc. and other commercial Internet service and content providers, NASA will use a Dutch-manufactured product called "WebCam" to stream NASA Television programming over the Web. In addition to "cybercasting" the launch and landing, NASA will transmit live video of the activities of the combined Atlantis-Mir crew, all mission briefings and the daily Mission Update program. Links to the video stream through American and European reflectors are available on the NASA Shuttle Web, http://shuttle.nasa.gov. -- Thanks to Philip Chien, KC4YER and to NASA

# TRW AMATEUR RADIO CLUB

**ELECTED OFFICERS**

| | | | | |
|---|---|---|---|---|
| President | Bob Briggs | KD6WYQ | R8 / 2188 | (310) 813-2622 |
| Vice President | Pat Anderson | KB6YPI | R7A /1265 | (310) 813-6874 |
| Secretary | Nina Whiddon | KN6FL | O1 / 2070 | (310) 813-9351 |
| Treasurer | Jan Parker | KD6AKD | R4 / 2058 | (310) 812-1081 |

**APPOINTED STAFF**

| | | | | |
|---|---|---|---|---|
| Activities Chairperson | Greg Martens | N6RRY | M1 / 1275 | (310) 813-4049 |
| Crosstalk Editor | Duane Park | WA6EIK | M3 / 2261BO | (310) 813-4219 |
| Emergency Coordinator | Duane Park | WA6EIK | M3 / 2261BO | (310) 813-4219 |
| Librarian/Asst. Postmaster | Steve Papa | KO6VF | M5 / 1263 | (310) 812-5305 |
| Membership Chairperson | Jerry Dean | WA6GVO | R2 / 1036 | (310) 812-0770 |
| Past President | Frank Cartier | W6FC | O1 / 1210 | (310) 812-2292 |
| QSL Manager | Bryan DeAro | KN6OW | 120 / 1020B | (310) 812-4789 |
| 447 Repeater Autopatch | Pat Anderson | KB6YPI | R7A /1265 | (310) 813-6874 |
| SEA Representative | Elizabeth Twyford | KS4IS | D1 / 1024 | (310) 813-0524 |
| Swap Meet Manager | Rich Sauer | N6CIZ | R9 / 2849 | (310) 813-5869 |
| SYSOP (Telephone BBS) | Ron Hoffman | KE6OJD | M4 / 2031C | (310) 814-9126 |
| Technical Chairperson | John Cheatham | KE6OJM | R9 / 2838 | (310) 813-5903 |
| S.P. Packet/Internet Sysop | Chris Wachs | WA2KDL | R7A / 2100 | (310) 813-1506 |
| Training Chairperson | Bryan DeAro | KN6OW | 120 / 1020B | (310) 812-4789 |
| Trustee of W6TRW License | Frank Cartier | W6FC | O1 /1210 | (310) 812-2292 |

TRW/ARC Telephone Computer BBS (24 hrs, 300-14,400 Baud, 8-N-1)  (310) 768-3399
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  http://w6trw.sp.trw.com/w6trw/

TRW Amateur Radio Club
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