



# RF



## ORANGE COUNTY AMATEUR RADIO CLUB, INC.

VOL. XLIV NO. 2

P.O. BOX 3454, TUSTIN, CA 92861-3454

Feb. 2003

### The Prez Sez:

One month has passed so far and what have we accomplished? We have a top notch committee in place, to update our by-laws and to get our business in order.

Phil N7PA has begun an inventory of club assets and the location of the assets. If any of you have any knowledge of club assets and have not done so, please contact Phil soon as you can.

It has come to my attention that Jim Talcott N6JSV, a long time club member and former President is now an SK. On behalf of the club, pass our condolence, to his family.

A VOLUNTEER is needed to help coordinate and organize our Field Day. Any takers?

See you at the meeting,  
73's----**Lowell-KQ6JD**

### Hams help with Columbia recovery

#### FBI, local police turn to amateur radio operators

by Gary Krakowis W2GSK.  
of MSNBC

(excerpts from MSNBC.com)

The Columbia space shuttle breaks up upon re-entry. Debris lands over hundreds of square miles — often rugged and rural territory where cell phones are out of the question and even police radios are often out-of-range and useless. In this case, as during weather disasters and other calamities year in and year out — officials turned to ham radio operators for help.

According to the national membership association for amateur radio, the American Radio Relay League (ARRL), ham radio volunteers are currently assisting federal, state and local officials and relief organizations in Texas in their search for shuttle Columbia debris and the remains of the crew members. Amateur radio operators must pass rigorous tests to receive a license and a call sign from the Federal Communications Commission — clearing them to broadcast radio, TV or data signals on frequencies set aside for their use.

-- See **Columbia** cont'd on page 4 --

### February Meeting

The guest program speaker will be **Art Sutorus, KQ6HF**, the ARRL Technical Coordinator for the Orange Section. Art will provide a presentation entitled:

#### "Electromagnetic Environment Awareness for Antenna Site Safety"

Although Amateur Radio is basically a safe activity, in recent years there has been considerable discussion and concern about the possible hazards of EMR, including both RF energy and power frequency (50-60 Hz) electromagnetic fields. Learn about RF safety considerations that Hams need to be aware of.

Don't miss it. All members and visitors are welcome.

The next general meeting will be:

**Friday, Feb 21st**  
**@ 7:30 PM**

We will be meeting in Anaheim Room in the east **Red Cross** Bldg.

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**THE ORANGE COUNTY  
AMATEUR RADIO CLUB,  
INC.**

P.O. Box 3454, Tustin, CA 92781



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**2003 Club Appointments:**

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**Monthly Events:**

**General Meeting:**

Third Friday of the month  
at 7:30 PM  
American Red Cross  
(near Tustin Ave & 4th St)  
Santa Ana, CA

**Club Breakfast:**

First Saturday of the  
month at 8:00 AM  
CowGirl's Cafe, Too  
2610 S. Harbor Blvd  
(just south of Warner)  
Santa Ana, CA

**Club Nets (Listen for W6ZE):**

Wednesday Evenings

28.375± MHz SSB  
7:30 PM - 8:30 PM  
Bob AF6C, Net Control

146.55 MHz Simplex FM  
8:30 PM - 9:30 PM  
Bob, WB6IXN, Net Control

**VISIT OUR WEB SITE**

<http://www.w6ze.org>

for up-to-the-minute club information, the latest membership rosters, special activities, back issues of RF, links to ham-related sites, vendors and manufacturers, pictures of club events and much much more.

**Club Dues:**

Regular Members ...\$20  
Family Members\* ...\$10  
Teenage Members ..\$10  
Club Badge\*\* .....\$3

Dues run from January thru Dec and are prorated for new members.

\*Additional members in the family of a regular member pay the family rate up to \$30 per family.

\*\*There is a \$1 charge if you'd like to have your badge mailed to you.

## Tech Talk #26

### So You Want To Be A Builder, Huh.....

By Doug Hendricks - KI6DS

(This month, the Tech Talk is the last of 5-part series on building kits....specifically building QRP related kits. The author is Doug Hendricks – KI6DS who graciously permitted the OCARC to reprint his series.)

If you have been following this series you know that I promised that we would be building a full fledged transceiver in this installment. The kit that I recommend for this section is the Small Wonder Labs SW40+, designed and sold by Dave Benson, K1SWL. Dave is a wonderful designer, and his rigs work great. You will be building a quality transceiver capable of providing many, many hours of QSO's. In fact, if I were limited on funds, and only had a few bucks to spend on this hobby, this would be the rig of choice.

Why 40 meters? Well, 40 is open pretty much around the clock to somewhere. QRP is a fun hobby, but you do want to make contacts when you operate. The SWL40+ puts out about 2 Watts, it has a very stable VFO that covers 40 KHz of the band (and you get to select which part of the band you want to cover), the receiver is very good, has a sensitivity of -130dB or more, and is easy to build. The manual is excellent. The cost? \$55 for the board and parts. You supply the connectors and controls and the case, but all of these can be bought at Radio Shack, or you can order them from Mouser. Typically it will cost about \$15 for a case, connectors and controls.

The SWL40+ was also the series of postings on QRP-L where several experts took the rest of us through building the radio stage by stage, had us test it as we went, and explained exactly what was happening almost part by part. This series was the subject of an entire issue of QRPP, Fall 1998. Reprints of this issue are available from me for \$20 (you get all 4 issues in the bound set, plus the Winter issue is dedicated to building the

2N2222/40 by Jim Kortge, another great project.). I'll give you details on ordering the back issues at the end of this.

There are lots of single band kits out there. Why did I pick the SW40+? Well, first of all is the cost and what you get. This is a transceiver that is a superhet receiver, VFO controlled, and puts out 2 Watts. The board is well laid out, and every part fits. No bending of capacitor leads, Dave does it right. Most other single band kits come complete with a case and connectors, but they drive up the cost a bunch. Dave's method of selling you just the board and parts, and letting you get your own controls, connectors and case is sometimes a lot cheaper, especially if you get a deal at a swapmeet or hamfest.

Another reason is the Elmer 101 course. I think that it is a wonderful resource, and is even probably on the net somewhere. You get all of these guys who know what they are talking about guiding you as you build. It doesn't get any better than that. But the biggest reason I picked the SW40+ is that when you get it built, you will be able to use it and make contacts. Now we have a VFO controlled rig. What a huge step up in convenience and fun that is. Plus, with this kit, you determine what portion of the band you are going to use it on. And, we have a fantastic receiver here. This is a superhet, and that means single signal reception, and selectivity. You won't hear the whole band when you listen.

Here is a summary of the kit's features:

- Single-board transceiver, 2.8x4.0" (7x10.1 cm)
- Commercial-quality board, masked and silk-screened
- True VFO: 35-40 KHz coverage
- Superheterodyne design, with crystal filtering
- Quiet solid-state T-R switching (QSK)
- Output Power Adjustable- 2.5W max.
- Power supply reverse-polarity diode
- 5 toroids to wind.
- 3 Crystal filter for improved skirt selectivity.

-- See TechTalk cont'd on page 4 --

## TechTalk -- cont'd from page 3

A grounding point for the crystal cases is also provided to reduce filter 'blow-by'.

The PA is a T0-220 device, capable of more output power than the original. Should you wish to modify the design slightly for more power, there's now space for a TO-220 heatsink.

All in all, I think the SWL40+ is the very best bargain, dollar for dollar, in ham radio today. If you were to build your own case and scrounge for controls and connectors, you could be on the air for \$60 with a VFO controlled transceiver that has a superhet receiver. Unbelievable 10 years ago.

Here's the information on how to order your SWL40+ kit:

SW+ Series Board Kit Price: The SW+ series is currently available for 80M, 40M, 30M or 20M. The SW+ series is \$55 (postpaid) to US and Canada.

Send your orders to:

Small Wonder Labs  
32 Mountain Road  
Colchester, CT 06415  
USA

Specify that you are ordering the SWLXX+ and replace the XX with the band, i.e. SWL40+ for the 40 meter version.

Or, if you wish go to the following URL and order your kit via PayPal or credit card.

[http://smallwonderlabs.com/orderform\\_US.htm](http://smallwonderlabs.com/orderform_US.htm)

You will need to scroll down to the SWL40+ section. Also be sure to check the enclosure, connector and control kits on the same page.

Hope you enjoyed this installment. The next one will deal with building a project from a schematic!! Exciting stuff.

72, Doug, KI6DS

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## HAMs Help Columbia Effort -- cont'd from page 1

ARRL officials say local efforts following the Columbia disaster have been a great success.

"Ham radio has proven to be the only reliable communications options during the recovery effort," according to Tim Lewallen (call sign KD5ING) of the Nacogdoches, Texas, Amateur Radio Club. "The communications systems used by other federal and state organizations cannot penetrate 'The Pine Curtain' as we know it in East Texas," he said. "The dense forests and hilly terrain just swallow up most radio traffic, and even county sheriff and county fire department radio systems have serious blind spots." According to Lewallen, federal authorities have requested that every survey team have at least one amateur radio operator along to help keep the recovery efforts coordinated and organized.

In South Texas, there are requests for hams that are still needed to assist in the search effort — with an urgent need for operators in the San Augustine County, where substantial debris remains to be recovered. Local coordinators say two-to-four dozen operators are needed each day and they expect the need to continue for the next three weeks.

Hams are using local amateur radio clubs' repeaters — which are receiver-transmitter combinations, usually installed on top of tall buildings that take low power radio signals and re-broadcast them at elevated power to a large area. Dallas County volunteers are being told they should use high-powered radios in the recovery effort because handheld "walkie-talkies" don't have the necessary range. It's also recommended they bring four-wheel drive vehicles, portable GPS (global positioning systems) and even laptop computers with mapping programs if they're not familiar with the area. Area residents with VHF scanners can listen in on the recovery effort.

Three of the Columbia astronauts were licensed amateur radio operators: Mission Specialists Kalpana Chawla, KD5ESI; David Brown, KC5ZTC; and Laurel Clark, KC5ZSU.

They aren't alone — many people associated with the space program have been active in amateur radio, including businessmen Dennis Tito, KG6FZX, and the three astronauts still circling the earth in the International Space Station — Commander Ken Bowersox, KD5JBP, Don Pettit, KD5MDT and Nikolai Budarin, RV3FB. Even astronaut hopeful Lance Bass of 'N Sync is a ham — KG4UYY.

Use of NA1SS from the ISS has been temporarily curtailed. But, according to the ISS governing group, space station contacts are expected to resume later this month.

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## GENERAL MEETING MINUTES

January 17, 2003

7:30PM- Meeting held at Red Cross East Bldg opened by Pres. Lowell KQ6JD-Salute to flag. 27 members & visitors were present

Membership: 2 visitors were introduced

Pres. Lowell KQ6JD presented ID badges to new officers.

VP. Steve KB1GZ introduced Dave Buhler WB6ZGF who gave a very interesting and informative presentation on planning for ham communications in the Tournament of Roses Parade.

8:40PM- Business Meeting Commences with Roll call. All present except Larry K6LDC and Cory AE6GW.

VP-Working on several future club programs

Secretary-Nothing to report

Treasurer-As of 1-16-03 the club has \$2,113.97 of which \$2,000 is in a savings account.

Membership-Dues are due for 2003-Please fill in a membership form to submit with dues so records can be updated.

Activities-Nothing to report

Publicity-Nothing to report

Technical-Nothing to report

Members at Large-Nothing to report

### New Business:

\* Bylaws: Pres. Lowell KQ6JD led discussion on rewriting club bylaws. Committee appointed: Phil N7PA; Bob AF6C; Ken W6HHC; Frank WA6VKZ. Suggested committee write job description for each board position along with the bylaws. Put forth to put Bylaws and job descriptions on web site posted sepa-

rately. Pres. Lowell asked committee to report back by May or June 2003.

\* April Meet: Pres. Lowell KQ6JD said we will meet on regular meeting date of 3rd. Friday even though it is Good Friday.

\* Not-So-DXpedition: Phil N7PA will organize the first N-S-DX campout of 2003. Tentative date is May 15.

\* Field Day: Pres. Lowell is looking for someone to be in charge of FD. Ken W6HHC will assist in locating a spot for FD at Portola Park in Santa Ana @ no charge. Pres Lowell will work with Ken. Phil N7PA indicated it might be a good time to approach the city of Tustin about getting back on the former Marine Corps base if not this year at least for the future.

\*Board Meeting Minutes 1/4/03: Reviewed by Pres. Lowell. Correction: Audit Report Bal. \$2,120.68 by Phil N7PA. Also change Larry's call from K6LNC to K6LDC

### \*Inventory of Club Equip'm't and who has item:

- 5KW Honda Gen-12/00-\$1217.-Chris W6KFW
- 4KW B7S Gen-1988-Ida Yamachika
- FD Power Cables-Ken W6HHC
- FD Guy ropes and Stakes(Donated) Bob KD6BWH
- Laminating Machine-1/02-\$54.-Bob AF6C
- 4 ea 10-ft Rohn Towers-1998-(Donated) Bob KD6BWH
- 1 ea 3-ele Hygain 20m Beam(Donated) Ken W6HHC
- 1 ea 5 ele Hygain 15m Beam(Donated) Ken W6HHC
- 1 ea 3 ele 10m Beam (Donated) Bud WA6VPP
- ~~-Tower Oct 91-\$105-SOLD~~
- ARRL Flag- Lowell KQ6JD
- OCARC Club Banner - Lowell KQ6JD
- Coffee Pot; 60 cup
- Coffee Pot; 100 cup
- PA System (Donated)Cindy KC6OPI
- Wooden Pres. Podium (Donated) Bob KD6BWH

### Good of the Club:

Baker-to-Vegas race-April 11- Looking for someone to head up this event. Need at least 12 hams. Orange and GG will have teams. Meeting: first Tues in Feb @ Orange PD at 1900 HRS.

-- See Meeting Minutes cont'd on page 8 --

# OCARC Board Meeting

Feb 1, 2003

OCARC Board mtg held at Cowgirls Café too. Called to order 8:30am by Pres Lowell KQ6JD.

A total of 14 members and visitors attended. All Board members were present except Bob KD68WH, Matt K6LNX, and Cory AE6GW – A Quorum was present.

Minutes from 1/4/03 Board meeting w/ corrections were read – Steve KB1GZ – moved to approve – second Bob AF6C - Approved

## New Business:

Bob AF6C – discussed possibility of creating a visitor's badge & speaker badge. VP to monitor badge use. These duties to be included in membership Committee job description.

Larry K6LDC – Field Day Publicity – is planning newspaper & TV coverage – asked for input from all involved in Field Day @ Portola Park Site in Santa Ana.

Ken W6HHC – discussed way to make visitors feel welcome at club meetings – some ideas brought up were: MR RF; poster at HRO, mailing to new Hams & provide OCARC Handouts at Gordo's classes. No action.

Steve KB1GZ – discussed membership problems that some local clubs are having. Suggested giving people from these clubs a free membership, or charge \$5 for membership for first year. No action.

Phil N7PA – brought up idea of consolidating clubs. No action.

Motion – Larry K6LDC – moved that new members automatically get a free badge & Steve KB1GZ seconded – Approved

Motion – Phil N7PA – moved that members who upgrade & change call sign get a free badge.

Frank WA6VKZ seconded – Approved

Frank WA6VKZ – suggested that members form a reception line to greet guests at club meetings.

David W7KTS – brought up OC Fair July 11-Aug3. The club w/take 1 day – prefer Wed– (because of club nets) David w/check it out.

Treasurer – Phil N7PA – reported Club has \$2,411.97 (\$2000 in savings). Phil also filed Statement of Information with state on 1/22/03. This tells state who we are.

Programs - Steve KB1GZ – discussed the program questionnaire handed out earlier. It was brought up that the programs he had in progress were good and the questionnaire was not needed.

## Old Business:

Phil N7PA – Pd. \$20 – to file statement of info w/ state and Pd. \$1 for a copy of an Articles of Incorporation.

Phil brought up the scope of the Bylaw rewrite Committee. Did the Board want the Committee to review the bylaws & Job description or encompass a wider scope.

Bob AF6C – said the scope of committee was:

- 1) Write job Descriptions and place out of the bylaws.
- 2) The payment of dues out of the bylaws.
- 3) Update bylaws to respond to technology.

Steve KB6GZ – suggested combining both wider & narrow scope in Committee. Phil N7PA – discussed 1963 Constitution – suggesting this later amendment might be invalid – Quorum under 1960 Constitution was 2/3 of the Quorum present. (Editors note...this suggestion has since been dismissed by the committee.)

-- See **Board Minutes** - cont'd on page 7 --

## Board Minutes -- cont'd from page 6

Discussed implication of wider scope – legal requirements were discussed – club operations. Phil said he would like committee to have a broader scope.

Motion: Phil N7PA – moved to instruct the Committee to investigate the operations & Bylaws of the club & make recommendations to the Board. Second by Larry K6LDC

Discussion –

Question called – Roll call vote requested.

Lowell KQ6JD – Yes  
Steve KB6GZ -Abstain  
David W7KTS – Yes  
Phil N7PA – Yes  
Larry K6LDC – Yes  
BobAF6C – Abstain  
Frank WA6VKZ – Yes

The motion passed. Phil N7PA was appointed chair of Bylaws Committee by Pres Lowell KQ6JD

9:40AM meeting adjourned

Respectfully submitted:

David Mofford W7KTS - Secretary

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**Bob Eckweiler - AF6C at his shack in the City of Orange**

## WHOis....the Technical Chairman?

by  
**Ken - W6HHC**

(This is the eleventh in a series of articles to inform you about the background of the officers and leaders of the OCARC.)

The Technical Chairman in 2003 is Bob Eckweiler - AF6C. Bob got interested in SWL when his father Howard - 2CXX (note: there was no suffix in the early days) bought him a National NC-88 receiver in 1956. A little while later a friend got Bob to visit W2CYJ who turned into a personal "Elmer". While Bob was in Manhasset Jr. HS he got his Novice I-license as WV2GUQ. His rig was a Heathkit DX-40. Within a year he had earned his General License and his call became WA2GUQ. His equipment moved up to a Heath Apache transmitter. Going to college at Penn State caused ham radio to go into the inactive mode until Bob moved to Orange in 1967 and obtained the call WB6QNU. He bought a Heath SB-301 and SB-401 in 1968. He first became active with the OCARC at the 1969 FD.

He obtained his Extra Class in 1977 and became AF6C. Bob has served President of OCARC in 1973, 1985, and 1996. He has also served as an editor of the RF Newsletter many times in the past. Bob currently serves as the trustee of the club W6ZE call and is net control operator on the weekly 10M net.

Bob lives in the City of Orange. His low-band base station is a Kenwood TS-440AT and a Heathkit SB-220 amplifier feeding a "vintage" Hygain 4-ele tri-band beam. (The SB-301/SB-401 units still are the back-up station...see PIX on this page). For high-bands there is a Yaesu FT-8100R for 144/440 MHz and a Yaesu FT-227RA for 144 MHz feeding a Mosley Diplomat 2M 5/8 on the roof. For portable and mobile operations, Bob uses a "tiny" Yaesu VX-1R handheld for transmitting 144 - 440 MHz and receiving from AM-to-1 GHz. Bob's shack also has a classic Collins Model 51J4 receiver, built in the 1950's.

Bob's favorite HAM radio activities include Field Day, studying technology - including being ass't WebMaster on the club web site, designing circuits, building equipment, and rag chewing on OCARC nets.

Bob was born in Manhattan and was raised in nearby Long Island in the town of Manhasset. He moved to Calif in 1965 and spent 35 years working at Douglas Aircraft - which became Boeing. He has managed the Antenna Lab, Lightning Lab, and the Flight Test mountaintop microwave communications systems.

Bob's favorite non-HAM activities include computers (especially the MAC), reading books (especially Sherlock Holmes and Harry Potter), and sports cars.

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**Gen'l Meeting Minutes** -- cont'd from page 5

Rick: Item for sale-QRP 1/2W CW 40M Transmitter Kit 6 hrs to build. \$25.

Bob AF6C: The club needs for signs into meeting room. Cindy KC6OPI will inquire as to Red Cross OK. Bob will make up signs.

Frank WA6VKZ: The club needs a workshop to teach building projects after board meetings. Discussion followed. Pres. Lowell expressed importance of "Elmer-ing" and asked to table until Feb. Board Meeting. Interest expressed by several in such a class. Cindy KC6OPI-can we use Red Cross parking lot? She will inquire.

Phil N7PA brought up donation cup to cover cost of refreshments. No action taken.

Meeting adjourned at 9:47 PM

David Mofford W7KTS  
Secretary.

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**Club Nets**

December check-ins for Wednesday evening 10M and 2M nets and Sunday morning 40M OCWN CW net:

<b>KD6BWH</b>	<b>W6KFW</b>
<b>AF6C</b>	<b>KG6KYJ</b>
<b>K6CCD</b>	<b>KD7KUN</b>
<b>KS6CW</b>	<b>K6LDC</b>
<b>W7ESD</b>	<b>KD6NOT</b>
<b>K6GVG</b>	<b>W6NT</b>
<b>KB1GZ</b>	<b>KE6OIO</b>
<b>W6HHC</b>	<b>WA6RND</b>
<b>K3IMW</b>	<b>KB6TWA</b>
<b>WB6IXN</b>	<b>KF6UEB</b>
<b>KQ6JD</b>	<b>K6VDP</b>
<b>K3JIL</b>	<b>WA6VKZ</b>

Check **WB6IXN's** NetNews  
monthly reports on  
**WWW.W6ZE.ORG**

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