Praz Sez...
By Jim Roberts, N6XTJ
Well it's the first part of September and the ARRL SW
convention is in the past. When I first set down to do
this I was able to talk about how that was coming up,
then the hard drive on my computer died and that is now
past history.

It was an interesting weekend and I saw many of you
there. I hope others made it to the convention and I am
sorry that I didn't see you there. For those that didn't
make it there were some interesting talks and some that
weren't I'm sure. There were many new toys on display.

Just a quick rundown on what I thought were the high
lights in the displays. For those of you that feel a real
radio should glow in the dark, it is back! But this time
the glow is your computer screen and the whole
transceiver is on a board in the computer. Only 100 mW
out but the transmitter kit comes with a 50 watt amp. that
sits outside the computer. And it costs about the same
as the tiny little Icom 706 or Kenwood TS-50S. The
knobs and buttons are only pictures on the screen for
your mouse to click on. It is a really neat idea and well
done from what I saw. I wonder if it will be the same as
having the dial in your hand and the buttons under your
fingers. Maybe just a little impersonal in the way it felt to
me. The times they are a changing, and the change is
DSP, Digital Signal Processing. Not just a little box that
removes noise by magic, it is the heart of that transceiver
in a computer board. N1R was showing DSP filters that
have to be heard to be believed. No sound at all then a
nice clear voice on side band but a filter that costs as
much as a handheld is still hard to jump at. The Icom
706 is so new that they only had a picture to show, but it
has 100 watts on HF and 5M and 10 watts on 2M. It is
an all mode mobile the size a 2M FM mobile was 10
years ago. The big thing in packet was GPS compatible
very small sizes and 9600 baud. Compatibility with the
latter was also a selling point for FM mobile rigs. That
just the peaks I saw, other club members there

probably saw things that to them were much more
important than these. All of this came with a prominant
price tag, but you get what you pay for and you are
getting a lot. So many toys, so little money!

One club member who was at his first ARRL convention
commented on how much fun he was having and would
plan to attend future conferences. Maybe that is
because he won a door prize but maybe it was the
people he got to see for the first time after talking to
them on the air. Plan to attend about this time next year,
you'll enjoy it.

As to club business, we still need one more non-member
for the nominating committee by the end of this month's
club meeting, please contact me if you can help with this
most important club function. The club's Christmas party
is in the planning stages, contact Jane if you have some
ideas. Also start to clean your shack now. The auction
is only about a month away. You need to decide now
what must go to the auction to make room for the
treasures you will be buying at it.

de N6XTJ

September Program
Jon Wetterholm, KD6BPE
Trip to Africa
Minutes of General Meeting - August 18, 1995

Meeting called to order by President, Jim, N6XTJ. Board Members present: President, N6XTJ, Treasurer, WA6VKZ, Secretary, KC6ONZ, Public Relations, KC6TAM, Activities, KE6NAH, Membership, WA6VPP, Tech Committee, WA6PFA, Member at Large, KJ6ZH.

Minutes for July meeting were read. Motion to accept minutes as read. Motion accepted.

Treasurer reports there is a little less than last month.

Membership reports 64 paid members. 1 guest present at meeting.

Activities - No new business.

Report from the floor of the Orange County Register still listing the wrong place of our meetings.

Public Relations - Nothing to report.

Tech Committee - Nothing to report.

OLD BUSINESS
World Radio - They would like us to pay $60.00 to have our club information listed in their magazine. Motion made, seconded and passed.

Field Day - Bob, KD6BWH was awarded the N6UC award for his part at field day.

NEW BUSINESS -
Nominating Committee - Committee needs to be formed. Jim would like to see regular club members on the committee.

Good of the Club Award - Contact Board Member.

Christmas Dinner - still looking for a location for Christmas Dinner.

Trailer - Need to get a hold of Skipper, KC6WJJ, about axel.

Meeting adjourned 9:05 pm.

Respectfully submitted,
Don Hughes, KC6ONZ
Secretary

1995 Board of Directors

President ....... Jim Roberts ... N6XTJ ... 310 986-0121
Vice President .. Cindy Hughes ... KC6OPI ... 971-3448
Secretary ....... Don Hughes ... KC6ONZ ... 971-3448
Treasurer ........ Frank Smith ... WA6VPP ... 838-3180
Activities ..... Steve Raunussen KE6NAH ... 330-3305
Membership ... Bud Burkhouse .. WA6VPP ... 774-2354
Public Relations Jane Brelser .. KC6TAM ... 310 866-2077
Tech Committee Tom Thomas .. WA6PFA ... 771-2017
Member At Large Chris Brelser .. KJ6ZH ... 310 866-2077
Member At Large Bob Ewes ... KD6BWH ... 534-2295

Club Appointments

Club Historian ... Bob Evans ... WB6XN ... 543-8111
WSZE Trustee ... Bob Eweles ... AF6C ... 639-5074
RF Editor ......... Cindy Hughes ... KC6OPI ... 971-3448

Dues

Regular Membership .... $12.00
Teenage Members .......... 6.00
Additional Family Members $5.00 each
Optional Club Badges ...... 5.00

Dues for new members are prorated quarterly. From January of each year, Family members must reside at the address of a Regular member. One RF is sent per household.
8/2 2m phone net - W6ZE/IJN checks in VFC, EMQ, NG7D, VDP, BPX, AF6C, ZH & TAM, RE, BWH, TWA, QW, & OPI. AF6C 'flies in & flies out! ' Wid no 15m net tone, we surmise Bob is still working on ant. repairs on the low freq. station! BPX will test for bloodclots in his leg, before impending surgery on the bad knee. Wyatt will try to be at Club Bfast on Sat. VFC takes the grandharmonic swimming each day during the hot WX, and Dennis gets 3 grid squares on 6m yesterday: Oregon CN78, Canada DM49, & Nebraska DN72, plus working KS on the side. EMQ interrupts homework on formulas long enuf to check in. And NG7D has been bed-ridden for a couple of days wid severe headache & vomiting. John will get one up on the 'bugs' when he visits the Doc on Fri. And John wrestles wid the intricacies of getting his Micronta printer to work properly on the old Commodore computer! NG7D queries VDP if there might be interest in submitting 6m homebrew ideas to Hambrew mag. Larry says most items can be bought more cheaply than built! VDP sites the TenTec 20/6m transverter in the $100 price range as an example. VDP will work at RE's QTH this Fri. And to date, Larry has 204 grid squares on 6m! ZH tells NG7D that he built a 6m beam for abt $20. TAM is still a little 'under the WX' as Docs work on 'body mysteries'! And Chris garners QSL cards from BS7H, Scarboro Reef, & ASI, Bhutan. Chris now has 304 countries worked wid 301 confirmed! And what's this! ARLR might do away wid DXCC, replacing it wid a new 'DXCC 2000' award? RE says the R7 & the dipole work equally well in receiving ARLR bulletins during bad band condx! And Alex reads ARLR bulletins. Help! Help! Any volunteers to take over collecting ARLR bulletins for the net & Club meetings?! Contact Alex, W6RE, if interested! IXN forgets to call BWN & tell him the audio is low on Newsline. We all increase audio at our rigs & enjoy another interesting Newsline, especially the OP who sees a major bank! OPs complain becuze FCC has become lax on enforcement issues, but remember guys, we all want a leaner government and we must suffer the consequences, or, DO THE WORK OURSELVES! TWA is re-arranging the QTH! The XYL has decided to re-carpet! And Charles says they are re-vamping the golf course in the SA River bed! QW moves the business to smaller quarters, scaling down operations, plus being entertained, and entertaining the XYL's daughter & husband frm Spokane. Wid the Well in, and a gravel road paved to the building site, plans move forward for Rolf to re-locate to Spokane in the near future! GW gets 7 QSLs on 6m yesterday, 2 frm Mexico today, and grid square DM86 in TX. OPI gets home frm a committee meeting, and Cindy watches the New Orleans situation carefully as hurricane Erin enters the Gulf of Mexico, And FZE finishes summer school in 2 days.

8/9 15m phone net - W6ZE/AF6C checks in NGO, RE, HHN, & IJN. NGO asks HHN how many trout he caught on the recent High Sierra backpacking trip. But Ken 5 or 6 inch trout don't interest Ken! RE, wid an intermittent audio problem, tells OPs that VDP helps him catch up on maintenance chores around the QTH! IXN says comet Hale-Bopp just might be a naked-eye comet come January, 1996! AF6C gets the tower up...Now to borrow RE's climbing belt for more serious antenna work! ZE asks IXN to be sure to announce upcoming Horse/Carriage event at Palos Verdes this weekend, and notify interested OPs to be there at 8:00 am to begin events at 9:00 am.

8/9 2m phone net - W6ZE/IJN checks in BPX, NG7D, PFA, TAM & ZH, VFC, VDP, TWA, RE, AF6C, QW, UCH, BWN, & HHN. XQ's XYL phones AF6C & PFA to remind all OPs abt the Horse/Carriage event this weekend. IXN warns OPs abt rattile snake sightings near the foothills! BPX has tests fer bloodclots in his legs in preparation for knee joint replacement. NG7D recovered frm his intestinal virus, gets another contact on the RS-12, and purchases a 3 amp-hr lead acid gel cell fer the camcorder! PFA announces the OC RACES repeater freq. of 146.895 fer talk-in fer the Horse/Carriage event this weekend. ZH & TAM charge batters fer the Event! And ZH works for another DXCC endorsement...Chris has 98 QSLs in hand on 80m! Wid plenty of snow, and rivers still running high near Visalia, HHN & harmonic enjoy cool temps 10,000 ft. above us during a recent backpacking trip in the High Sierra! ZH makes changes at the ends of the 80m sloper to make it more broadband. And VDP says that VFC, acting NC on the So. CA, 6m Club net, checks in 17 out-of-state contacts! (IXN forgot to record the date!) And Larry still has a bias problem in the VHF rig. BWN catches up on news of the Horse/Carriage event this weekend. And Bob airs Newsline, wid clear, crisp audio tone! TWA, wid new rug now laid in the QTH, has to connect up all the gear once agin. So Charles checked in on the HT tone, telling OPs that he slipped & fell on the rug, garnering a beautiful black eye frm the incident! RE still looks fer the audio gremlin in the VHF rig. And VDP will try to sell some of Alex' gear at the Swap Meet. RE will discuss R7 purchase wid QW via landline. And RE reminds us that 3 of the LA Communications Dept. supervisors recently killed were Hans: W6KCN, N6BZ, and K6GBB. QW can't find anything since his recent Business move, but Rolf gets the "A Number one" most important job completed...He got the coffee pot up and running! Rolf says OPs will enjoy the Home & Garden Show at the Anaheim Convention Center Aug 19-27, and, in passing, QW says V7E7's were 'pipelining' into So. CA, on 6m yesterday! UCH 'flies in & flies out!' AF6C & PFA says, 'Don't forget the
Horse/Carriage event at Palos Verdes this weekend!

8/16 15m net - W6ZE/AF6C, operating at HHCC's QTH, checks in NGO, HHCC, TWA, COJ, RE, & IXN. NGO, enjoying the cool temps, asks AF6C if he plans "ant. raising" ceremonies this weekend. "Not yet", says Bob, as he plans to take a day off to finish up preparations for the event! COJ, AF6C & HHCC talk abt past Club Christmas Party sites, and HHCC & Dianne are off for a short vacation to Carmel. RE tells OPs abt the hurricane emergency net operating on 14.325 MHz on the East Coast, and Alex informs OPs of FCC intentions to privatize RFI problems, sending them to community electronics repair shops for resolution. And AF6C experiences "timing problems" with the 240Z. Bob thinks he has a "retarded" timing light! But after performing sum "voodoo mechanics", Bob resolves the problem!

8/16 2m net - W6ZE/IXN checks in BPX, NG7D, RE, VFC, MQ, HHCC, AF6C, VDP, BWH, ZH & TAM, PZF, ESD, & TWA. BPX, enjoying the last 3 days of cool WX, must check w/ a vascular surgeon before he has knee surgery. Wyatt will keep us informed! BWH, wind traffic for the national net, airs Newsline early for OPs. Movie critic NG7D takes in Kevin Koster's "Water World", and was not overly impressed! And John tells us that NOAA will drop its present WX satellite xmissions, which will affect OPs receiving WX maps on their home computers! RE is vy happy w/ 'VDP labors' on the QTH! And Alex tells OPs that the R7 ant. is doing a gud job! WHO WILL VOLUNTEER!?!...Alex needs an OP to assume Official Bulletin duties for the Club!! Call Alex at 544-1974! VFC & MQ garner a new grid square on 6m; CN74! And Dennis says there were 17 DX check-ins on the 6m net last week! VFC, VDP & ESD will all be going to the DeVry Swap Meet this weekend. MQ expresses surprise over NOAA dropping WX satellite xmissions, and Rolf "works till he drops" trying to get the new shop in order! HHCC tells IXN that he was backpaking in the Mineral Springs region of the High Sierra. And keeping one eye on Ken's harmonic, Tony, at a critical point in a computer game, HHCC tells us that XO, HHCC, ZH & TAM, PFA, WLO, AF6C, & DLA, all participated in the Horse Carriage event near Pacific Palisades last weekend! Nice turnout, OPs! VDP has 210 QSLs in on 6m! And Larry tells us that WSFF has Worked All Grid Squares in North America! And his XYL, KSFF, was the 1st person to work DXCC on 6m! ZH & TAM, w/d the CA. Classic Carriage event behind them, work on 6m QSL card preparation. And TAM bakes brownies for Club meeting Fri. eve! OPI is off to N. Carolina as Red Cross prepares for hurricane Felix to strike the East Coast! PZF has an enjoyable trip thru Wyoming, Montana, Idaho, and Washington...Now bx to the "old grind", John! ESD enjoys the cooler WX, even getting out yesterday for a round of golf! And Bob will try to pick up the Heard Is. DXpedition in Nov.! TWA, wid rug-laying ceremonies over, is stil moving too much equipment bk into the shack! However, TWA does plant sum winter tomatoes. Now we'll see if Charles has tomatoes by Christmas!

8/23 2m phone net - W6ZE/IXN checks in VFC, NG7D, PZF, RE, VDP, MQ, BWH, ZH & TAM, TWA, & OPI. VFC & MQ says 6m has been dead! So it's off to the gym for morning workouts the past week for Dennis! IXN tells OPs that Hayes Acton, W6NIK, is a Silent Key! NG7D calls earlier for the 15m crew, but nobody is heard! And John asks MQ to look up ABSYG for an ad on the computer. PZF is 180 degrees off wid IXN! John doesn't like the hot, humid, uncomfortable WX! But PZF does enjoy 2 gud days at Disneyland wid the XYL's sister & niece frn Albuquerque! RE, experimenting wid the R7 ant., gets feedback on 10m! VDP suggests that Alex check fdr a resonant gnd lead, and, try connecting the rig directly to the feedline minus the ant. tuner! And VDP gets 2 more grid squares confirmed today, bringing his total arnd 210! OH, OH!...Larry just discovers part of his log still on scrap paper! MQ visited the Home & Garden show at the Anaheim Conv. Center, & Rolf gets 5 more QSL cards today! Meantime, MQ puts sum Opera frrn PBS on tape. BWH, wid no NTS tonite, airs a 'loaded wid info.' Newsline later in the net! OPI gets bk home after 5 days w/d the RC on the East Coast...Seems that Cindy just 'blew' Felix right bk out to sea! TAM spends her time wid the new pup, Andy, wid dog, Charlie, who was in the vet hosp. w/d a virus. ZH garners a QSL frrn ZK3NW, Tokelau Is. Wid 98 QSOs confirmed on 80m, Chris needs 2 frrn the 5 band DXCC! TWA plants more winter tomatoes! Now come January, we'll check on Charles' tomato production!

8/30 15m net - W6ZE/HHCC checks in NG7D, NGO, IXN, & RE. On this vy warm day, HHCC reminds all OPs of Club Bfast Sat. NG7D said it was nearly 100 deg. at the QTH today! And John asked IXN abt a blackout last nite. IXN says no power outage at the QTH! And IXN tells OPs abt a 4.3 EQ at Ridgecrest this morning. Also HHCC & IXN compare notes on Carmel, CA. RE & IXN notes drift in ZE's s/s. And Alex tries to cool the QTH wid two small window air condxs! NGO beats the heat by cutting the grass early! And Kei, wid help frn a nephew & helper, replaces the water line to the QTH yesterday. And NGO has the plumber in to repair an errant drain! RE wonders how one tells the polarity of sunspots as he reports on a possible beginning of solar cycle #23!

8/30 2m phone net - W6ZE/IXN checks in BPX, ZH & TAM, NG7D, PZF, RE, VFC, W5ARY, VDP, KSSTF, MQ, & BWH. ARY 'files in & files out!' BPX has a 'toe pressure test' coming up at St. Joes Hosp. to see if he can hve knee
Test Your Knowledge!

How much do you know about repeaters and packet radio?

By H. Ward Silver, N0AX
22916 107th Ave SW
Vashon, WA 98070

Repeater

1. What is kerchunking?
   a. dropping a hand-held transceiver into water
   b. spurious interference that overrides your signal
   c. glitches in an automatic repeater ID system
   d. momentary transmissions that activate a repeater

2. What does a squelch squelch?
   a. tone-tone pulses
   b. transmitter output
   c. receive audio
   d. mobile flutter

3. Subaudible tones are too ____________ to be heard in a repeater's output audio.
   a. quiet
   b. low in frequency
   c. quick
   d. infrequent

4. What is the lowest amateur frequency band on which repeater operation is permitted?
   a. 10 meters
   b. 160 meters
   c. 20 meters
   d. 2 meters

5. A crossband repeater operates on two different ____________
   a. amateur bands
   b. modes
   c. FM exciter designs
   d. portions of the same amateur band

6. Repeaters are allowed on which frequencies in the 2-meter band?
   a. 144.3 to 145.5 MHz
   b. 146 to 148 MHz
   c. both (a) and (b)
   d. all frequencies

7. If you're thinking about building a new repeater, which of the following frequencies is most likely to be available?

8. From the user's perspective, a repeater supports ____________ operation.
   a. simplex
   b. duplex
   c. backchannel
   d. self-activated

9. Unwanted signals at a repeater input resulting from the mixing of strong local signals are called:
   a. whistlers
   b. intermodulation
   c. birdies
   d. LO injection

10. Full quieting implies that what is minimized?
    a. multipath interference
    b. ignition noise
    c. receiver noise
    d. hum

Packet

11. TNC stands for:
    a. Terminal Node Controller
    b. Tucson Networking Club
    c. Terminate Network Communications
    d. Transmit Numeric Constant

12. Which specifies the rate at which a packet signal changes states (shifts tones) while sending data?
    a. checksum
    b. baud
    c. packet length
    d. retry count

13. Relaying digital signals through another station is called:
    a. full-duplex
    b. traffic handling
    c. on-line
    d. digipeating

14. Which of the following protocols are used in packet radio?
    a. AX.25
    b. TCP/IP
    c. Both (a) and (b)
16. A host station to which multiple connections are made is called a:
   a. node  c. DTE
   b. home  d. QTH

17. 1200-baud digital data transmissions are limited to the amateur frequencies above:
   a. 1.4 MHz   c. 1.44 MHz
   b. 2.8 MHz   d. 1.2 GHz

18. Sending data by shifting the frequency of an audio tone is abbreviated:
   a. MCW   c. AFSK
   b. FEC   d. PSK

19. Establishing contact with another packet station is termed:
   a. connecting   c. accessing
   b. routing      d. hosting

20. To send a message to a packet station that is not in contact with you, you must know...
   a. the receiving terminal type
   b. the destination address
   c. the receiving TNC manufacturer
   d. the destination station’s receiving frequency
TWO SPEAKERS HELP BEAT HEARING LOSS

As an aging ham, I suffer from partial hearing loss—a condition that seems to be worse at the higher audio frequencies. Increasingly, I had to ask for phonetic repeats on call signs, etc.

Not liking earphones, I tried various external speaker arrangements without success until arriving at the plan described here.

I mounted two 4-inch speakers in cigar-box baffles filled with glass wool, and placed them atop my transceiver, facing me. (The speaker cones must be in phase as determined by cone movement when dc—safely current limited—is applied.) Then I adjusted the speakers' angle so that their axes cross at my position. This arrangement allows me some lateral movement, as long as I'm located on one of the speaker's axes. At dead center, I benefit from both speakers.

This arrangement works well for me, and now I only rarely ask for repeats or phonetics. I would like to hear from others who try this suggestion.—Tom Freedom, W3HVE, Harrisburg, Pennsylvania

FCC SETS FEES FOR VANITY CALL SIGNS

The Federal Communications Commission has adopted a fee for amateur vanity call signs of $3 per year, to be collected for the entire 10-year term at the time of application.

The beginning date for these fees is September 18, 1995. The fees are the result of a mandate from Congress that the FCC collect fees to recover some of its regulatory costs.

The FCC said that the revenue requirement for amateur vanity call signs is $840,000, and estimates that it will process 28,000 applications for them.

No start date for applications for vanity call signs has yet been announced, and the necessary FCC Forms 610-V have not yet been released. These fees apply only to vanity call sign applications, not to any other amateur license transaction.
Club Nets

<table>
<thead>
<tr>
<th>Band</th>
<th>Mode</th>
<th>Day</th>
<th>Local Time</th>
<th>Freq. MHz</th>
<th>Net Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 Meters</td>
<td>SSB</td>
<td>Wednesday</td>
<td>8:00 PM</td>
<td>21.375*</td>
<td>AF6C</td>
</tr>
<tr>
<td>2 Meters</td>
<td>FM</td>
<td>Wednesday</td>
<td>8:30 PM</td>
<td>146.550 Simplex</td>
<td>WB6IXN</td>
</tr>
<tr>
<td>40 Meters</td>
<td>CW</td>
<td>Thursday</td>
<td>7:30 PM</td>
<td>7.135*</td>
<td>WA6RND</td>
</tr>
</tbody>
</table>

(Listen for W6ZE, Net Control)

*Plus or Minue QRM

General Meeting

- September 15
- October 20
- November 17

General Meeting is the 3rd Friday of each month at 7:30 PM.
American Red Cross
601 N. Golden Circle Drive, Santa Ana, CA
Talk in Frequency 146.550 simplex
Major Cross Streets: Fourth St. & Tustin Ave.

Board Breakfast

- October 7
- November 4
- December 2

Board Meeting is the 1st Saturday of each month at 8:00 AM.
The Wildflower Restaurant--Members & Visitors are welcome.
Grand Ave., Santa Ana, CA
Exit the 5 freeway at 17th Street, go east to Grand Ave. Go north on Grand; or exit the 22 freeway at Grand/Glasell...Go South to restaurant.

Orange County Amateur Radio Club, Inc.
P.O. Box 3454
Tustin, CA 92681

First Class Mail

Time Dated Material.
Please Rush!