RF

ORANGE COUNTY AMATEUR RADIO CLUB, INC.

VOL. XLIV NO. 7 P.O. BOX 3454, TUSTIN, CA 92861-3454 July 2003

The Prez Sez:

Field Day for 2003 is over, the bands were not very good but everyone enjoyed themselves. (see PIX below) With the pre-planning of Larry K6VDP, Ken W6HHC, Bob KD6BWH, Elmer WA6PFA and Bob AF6C the operations went like clock work. A big thanks to Bruce KC6DLA, Bob KD6XO and Rich KE6WWK for the use of their Motor Homes. Don Hughes thankfully made time from his busy schedule to ensure that we were fed. Old friend Chris Breller, KJ6ZH, made the long trip down from the Bay Area to do some satellite work and Chris KE6LEX finished up his night school and was a welcome sight with his solar power set up. To the rest of the members a great big hand for helping set up and tear down all the towers and antennas. We had several HAMS that were giving us a hand, who were not club members and they made our Field Day even more successful. Thank you and the door is always open to you. We also had a nice visit from ARRL Vice President Fried Heyn WA6WZO, SW Director Art Goddard W6XD and Assistant Director Tuck Miller NZ6T.

July Meeting

Don't forget that the meeting will start one-half hour early at 7:00 PM, due to Red Cross new security rules.

The presentation by Joe Moell KØOV this meeting will be:

"Radio Direction Finding"

Hams and their families are having fun with radio direction finding. You can learn about mobile T-hunting, radio-orienteering, ARDF and ROCAs.

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

The next general meeting will be:

Friday, July 18th
@ 7:00 PM

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

In This Issue: **Page**

THE ORANGE COUNTY AMATEUR RADIO CLUB, INC.
P.O. Box 3454, Tustin, CA 92781

2003 Board of Directors:

President:
Lowell Burnett, KQ6JD
(714) 997-0999
LBur729028@aol.com

Vice President:
Steve Brody, KB1GZ
(714) 974-0338
stevebrody@sbcglobal.net

Secretary:
David Mofford, W7KTS
(714) 285-0693
davidmofford@hotmail.com

Treasurer:
Phil Andersen, N7PA
(949) 492-1900
n7pa@arrl.net

Membership:
Bob Buss, KD6BWH
(714) 534-2995
kd6bwh@aol.com

Activities:
Matt McKenzie, K6LNX
(714) 546-2228
k6lnx@arrl.net

Publicity:
Larry Hoffman, K6LDC
(714) 636-4345
k6ldc@earthlink.net

Technical:
Bob Eckweiler, AF6C
(714) 639-5074
af6c@arrl.net

Members At Large:
Cory Terando, AE6GW
(714) 894-3817
corymuzk@yahoo.com

Frank Smith, WA6VKZ
(714) 356-4695
wa6vkz@msn.com

2003 Club Appointments:

W6ZE Club License Trustee:
Bob Eckweiler, AF6C
(714) 639-5074
af6c@arrl.net

Club Historian:
Bob Evans, WB6IXN
(714) 543-9111
bobev@netzero.net

RF Editor:
Ken Konechy, W6HHC
(714) 744-0217
kkonechy@pacbell.net

WEB Master:
Ken Konechy, W6HHC
(714) 744-0217
kkonechy@pacbell.net

ARRL Assistant Director:
Ken Konechy, W6HHC
(714) 744-0217
kkonechy@pacbell.net

ARRL Awards Appointee:
Larry Beilin, K6VDP
(714) 557-7217
k6vdp@aol.com

OCCARO Delegate:
Bob Buss, KD6BWH
(714) 534-2995
kd6bwh@aol.com

Monthly Events:

General Meeting:
Third Friday of the month
at 7:00 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):
7.115 ± MHz CW OCWN
Sun- 9:00 AM – 10 AM
Rick KF6UEB, Net Control

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

146.55 MHz Simplex FM
Wed- 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 #31

The Antenna Tuner

By Bob Eckweiler – AF6C

(This is part four in a series to explore RF impedance, from the antenna…down the feed line…and eventually reach the antenna tuner and transmitter.)

Last month we saw how the impedance present on a feedline changes as it is measured at different points along that feedline from the antenna to the transmitter. Only when the antenna terminal and the coax impedance are the same, is the impedance constant along the feedline; this is the ideal condition, but is difficult to meet and is lost as soon as the frequency is varied. In practice, one must expect some mismatch and deal with it. A mismatch, when properly handled, won't result in a significant degradation of your signal. This month we'll look at the interface between the radio and the feedline. An antenna tuner is often used here to match the feedline impedance to the transmitter (and cancel out any reactance from the antenna). While the antenna tuner is normally located in the shack, some hams claim that it should be placed at the antenna instead for much superior performance. Later in the article we'll look at the pros and cons of doing this. Please read it before you haul your Johnson Matchbox to the top of your tower!

A Bit of History:

Older tube transmitters and amplifiers usually had a pi-network output tuning stage that was able to compensate for mismatches that resulted in SWRs up to about 3:1. The pi-network could easily handle the mismatch that occurred across the band on 10, 15 or 20 meters or much of 40 meters when using a properly designed resonant antenna (triband beam, dipole, multiband vertical, etc.) The antenna tuner was only found in shacks where non-resonant antennas (longwires, etc.) or resonant antennas on 80 and 160 meters were used. Why do resonant antennas require an antenna tuner on 160 and 80 meters and not on the higher bands? It's a simple question of antenna bandwidth. Let's say a particular design of an antenna has an SWR of 1.2:1 at its resonant point and remains below 2:1 as you move in frequency ± 1% from the resonant point. On 15 meters the whole 450 KHz segment of the band is only about 2% of the frequency, so if the antenna is cut somewhere near the middle it should be usable with an SWR never much greater than 2:1 across the band. However, on 80 meters that 2% is only about 70 KHz of the 500 KHz width of the band. Therefore only a small part of the band can be used with an SWR below 2:1. As long as you stay within that 70 KHz area no antenna tuner is required. But hams like to use their available spectrum!

Today's solid-state transmitters commonly use broadband output. When they were first introduced there was a lot of hype about "no tuning needed". While that was true for load impedances very close to the 50 + j0 ohm design impedance, larger mismatches often resulted in damage to the expensive final transistors. Protective circuits were quickly developed that lower the power output when a significant SWR is detected to prevent transistor damage. Hams found their power dropping off as they moved around the band away from the antenna resonant point with their new solid state radios. The solution was to add an external antenna tuner to bring the impedance back in line and allow the radio to develop full power. Of course the tuner needed to be tuned so the benefit of "no tuning needed" vanished. Manufacturers quickly compensated by adding "automatic" antenna tuners that could tune at the touch of a switch. These tuners work well but are limited due to size and have matching capabilities on par with the range pi-networks could tune. (It's a credit to the manufacturers design skill that they are able to make them as small as they have!) The Kenwood TS-440SAT antenna tuner is specified to match between 20 and 150 ohms, an SWR of around 3:1. Solid state transmitter have resulted in internal or external antenna tuners once again becoming popular in ham shacks.

A Look at Power Transfer:

The antenna tuner helps in the process of getting power from the radio to the antenna where it can be radiated. So, what is the most efficient way to transfer power from one point to another along a wire?

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

TechTalk -- cont'd from page 3

Forget RF, forget even AC, we'll do this in as simple a way as we can by using DC - just volts, ohms and amperes! Figure 1 shows a simple DC circuit.

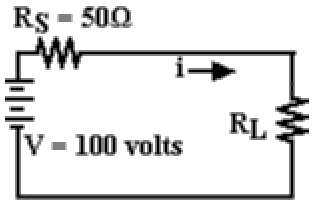

Figure 1

The battery produces 100 volts. R_S is the source resistance and represents the internal resistance of the battery and the wire. R_L is the load. This is the resistor we want to absorb the most wattage. With the battery voltage set at 100 volts and R_S set at 50 ohms, the question is: What is the resistance of R_L that will allow it to absorb the most power from the battery? This can easily be solved using calculus, but let's keep it simple and use algebra. R_L is a load resistance. I is the current flowing through R_L and is determined by dividing the voltage by the sum of R_S and R_L (Ohms Law!):

$$I = \frac{E}{(R_S + R_L)} = \frac{100}{(50 + R_L)}$$

The power dissipated by R_L is then calculated by:

$$W_L = I^2 R_L$$

Look at Table 1. It solves the preceding equations for various values of R_L. I've left two rows blank for you to do as an exercise; if you email me with the correct missing values I'll draw a name from the correct answers for a special prize. Answers must be received the day prior to the July meeting. From Table 1, it's evident that the most power is transferred when R_L = R_S. But even more interesting is how the power transfer falls off away from this point. When the resistance changes by ± 25% the power drops by only about 2%. As long as we're in the vicinity of the 50 ohm resistance the loss will be minimal.

We can now expand our model above to consider AC and include reactances. Remember that a true reactance doesn't dissipate any power. Instead, it cause a phase shift between the voltage and current flowing in the feedline. Maximum power can only be delivered when the voltage and current are in phase. Thus to get the maximun power transfer the source and load reactances must be equal in magnitude but have opposite signs. If the source has 10 ohms inductive reactance (+ j10?) then the load must have 10 ohms capacitive reactance to (– j10 ohms) to cancel and bring the phase shift back to zero. Remember here we are talking about short lead lengths.

E	Rs	RL	I	WLoad
Volts	Ohms	Ohms	Amps	Watts
100	50	0.0	2.00	0.00
100	50	5.0	1.82	16.53
100	50	10.0	1.67	27.78
100	50	20.0	1.43	40.82
100	50	35.0	1.18	48.44
100	50	37.6	?.??	??.??
100	50	40.0	1.11	49.38
100	50	45.0	1.05	49.86
100	50	48.0	1.02	49.98
100	50	50.0	1.00	50.00
100	50	52.0	0.98	49.98
100	50	55.0	0.95	49.89
100	50	60.0	0.91	49.59
100	50	65.0	0.87	49.15
100	50	66.5	?.??	??.??
100	50	100.0	0.67	44.44
100	50	200.0	0.40	32.00

Table 1– Watts into LOAD as Rload Varies

The Antenna Tuner:

Let's assume at the transmitter end of the feedline the impedance is 40 - j42.5 ohms (an SWR of 2.5:1.) Your solid state rig probably won't handle this load efficiently. By placing a properly adjusted antenna tuner between the rig and the feedline a more efficient match may be obtained. What the antenna tuner must do is present an impedance to the transmitter of 50 + 0j ohms and an impedance to the feedline of 40 + 42.5j

-- See **TechTalk** cont'd on page 8 –


PORTOLA PARK
OCARC Field Day
2003

"RF" **ORANGE COUNTY AMATEUR RADIO CLUB** **JULY 2003**

FIELD DAY SUMMARY
FOR
THE ORANGE COUNTY AMATEUR RADIO CLUB - W6ZE

by: Ken / W6HHC & Bob / AF6C

YEAR	160M SSB	80M CW	75M SSB	40M CW	40M SSB	20M CW	20M SSB	17M SSB	15M CW	15M SSB	12M SSB	10M CW	10M SSB	6M PHN	2M CW	2M PHN	2M PKT	220 PHN	440 PHN	ATV	SAT-ELLITE	GOTA	- - - - TOTAL - - - - QSO's	/	(POINTS)
2003	0	0	85	52	127	27	295	0	0	191	0	0	41	52	0	64	0	1	13	0	0	0	948	/	2,054
2002	0	26	69	192	279	76	229	0	0	485	0	0	18	62	0	68	2	6	10	3	0	3	1,528	/	3,648
2001	0	0	25	101	251	0	432	0	0	675	0	0	109	48	0	28	0	1	0	0	3	-	1,673	/	3,548
2000	0	19	20	88	91	0	625	0	0	794	0	0	121	36	0	72	0	7	15	0	1	-	1,889	/	3,992
1999	0	13	20	15	237	0	996	0	0	724	0	0	22	5	0	2	0	0	0	0	0	-	2,034	/	4,124
1998	0	24	75	65	136	100	250	0	0	624	0	0	82	0	0	46	7	17	12	0	1	-	1,439	/	3,270
1997	5	81	131	83	306	150	853	0	14	275	0	0	106	32	0	79	32	4	0	0	1	-	2,152	/	5,024
1996	-	146	228	104	125	283	673	0	40	605	0	0	217	121	0	32	13	0	40	0	1	-	2,628	/	6,428
1995	-	145	272	203	94	443	572	0	51	451	0	0	131	66	0	93	33	29	8	0	6	-	2,597	/	6,944
1994	-	114	114	208	45	486	748	0	85	761	0	13	312	58	0	94	31	33	0	0	0	-	3,102	/	8,078
1993	-	150	100	159	81	530	700	30	131	812	0	0	179	40	0	86	35	12	16	0	0	-	3,061	/	8,132
1992	-	0	294	200	110	541	555	0	0	840	0	0	232	13	0	74	41	0	1	2	80	-	2,983	/	7,530
1991	-	105	308	182	182	400	623	23	9	463	0	0	104	4	0	141	48	23	11	0	0	-	2,626	/	6,740
1990	-	0	0	70	144	0	370	-	0	747	0	0	131	39	0	114	2	14	26	0	-	-	1,657	/	3,454
1989	-	30	0	98	5	0	906	-	21	172	0	0	238	3	0	121	18	24	9	1	-	-	1,646	/	3,590
1988	-	127	0	93	75	2	359	-	0	570	0	144	81	0	0	32	14	0	-	-	-	-	1,497	/	3,726
1987	-	22	0	0	39	0	708	-	0	18	1	117	0	1	0	51	5	0	-	-	-	-	962	/	2,202
1986	-	0	46	219	78	0	488	-	0	45	10	0	0	0	0	82	0	0	-	-	-	-	968	/	2,374
1985	-	85	0	315	91	35	662	-	78	0	-	0	0	0	0	22	-	0	-	-	-	-	1,288	/	3,602
1984	-	18	0	313	0	32	196	-	32	350	-	0	0	0	0	0	-	0	-	-	-	-	941	/	2,672
1983	-	3	93	200	0	0	776	-	0	995	-	0	43	18	0	16	-	1	-	-	-	-	2,145	/	4,696
1982	-	0	105	59	238	40	352	-	19	515	-	0	72	0	0	155	-	27	-	-	-	-	1,582	/	3,400
1981	-	0	167	200	265	60	699	-	77	717	-	0	105	0	0	197	-	0	-	-	-	-	2,487	/	5,648
1980	-	20	149	205	235	471	318	-	52	1,025	-	0	226	12	0	100	-	36	-	-	-	-	2,849	/	7,194
1979	-	0	195	198	92	42	773	-	0	737	-	0	95	0	2	124	-	8	-	-	-	-	2,266	/	5,016
1978	-	16	196	246	170	30	981	-	57	558	-	13	145	0	1	164	-	23	-	-	-	-	2,600	/	5,926
1977	-	25	243	182	199	0	843	-	81	486	-	4	309	0	4	234	-	0	-	-	-	-	2,610	/	5,812
1976	-	99	254	152	487	21	600	-	64	210	-	2	54	0	0	2	-	0	-	-	-	-	1,945	/	4,566
1975	-	80	120	154	274	40	863	-	140	259	-	0	123	0	0	0	-	0	-	-	-	-	2,053	/	4,934
1974	-	6	161	6	333	0	630	-	12	342	-	0	110	0	0	0	-	0	-	-	-	-	1,600	/	3,248
1973	-	90	226	0	452	0	932	-	0	273	-	0	0	0	0	46	-	0	-	-	-	-	2,019	/	4,218
1972	-	0	50	0	350	0	521	-	0	530	-	0	0	0	0	94	-	0	-	-	-	-	1,545	/	3,090
1971	-	0	274	0	106	0	530	-	0	136	-	0	0	0	0	0	-	0	-	-	-	-	1,046	/	2,092
1970	-	0	272	0	0	0	531	-	0	426	-	0	0	0	0	0	-	0	-	-	-	-	1,229	/	2,458
1969	-	0	98	0	50	0	375	-	0	301	-	0	0	0	0	169	-	0	-	-	-	-	993	/	1,986
1968	-	10	224	62	396	93	328	-	24	430	-	0	68	0	0	145	-	0	-	-	-	-	1,780	/	3,938

Note: These are raw contacts taken directly from the log sheets. Adjustments have not been made for duplicate contacts,and bonus points have not been added yet. Final scores appear in QST.

OCARC General Meeting Minutes

June 20, 2003

June General meeting OCARC was held 6/20/03 at the American Red Cross East Building. The meeting called to order at 7:00pm by President Lowell KQ6JD. There were a total of 25 members and visitors present. The following guests were recognized: Carl WA6BSV (ex-KG6KYJ), Jack N6UC a Past President of OCARC, & Steve KG6QVY.
Welcome to all--Please come often.

Roll Call showed the following officers absent: Phil N7PA; Matt K7LNX; Cory AE6GW and Frank WA6VKZ, a quorum being present.

Wouff Hong: OCARC has been asked to do the Wouff Hong ceremony at the SW Division Convention 9/99/03. After a brief discussion the matter was tabled until the 7/5/03 board meeting.

Treasurers Report: $2507.35 in the bank.

OC Fair: OCARC will man the booth Wednesday July 16. Bob KD6BWH passed around the sign up sheet
Motion: W7KTS moved that OCARC give $50.00 to OCCARO to help cover the cost of the booth. Ken K6HHC seconded. Discussion followed and motion passed.

Program: Ken K6HHC was introduced and gave a slide presentation of past OCARC Field Days and explained the purpose of Field Day. He also reviewed the FD set-up schedule for Saturday and fielded planning questions.

The meeting adjourned at 8:45 pm.

Respectfully Submitted,
David Mofford W7KTS - Secretary

OCARC BOARD MINUTES

July 05, 2003

The OCARC Board Meeting held July 5, 2003 at Cowgirls Cafe, Too. Called to order at 8:30AM by Pres.Lowell KQ6JD. There were a total of 13 members and visitors present. Roll Call indicated 6 directors were present; a quorum being available.

V.P. - The program for July will be Joe Moell, KØOV, speaking on T-Hunts

Secretary -Nothing to report

Treas: $2436.12 in the account. Phil N7PA announced he is stepping down as Treasurer due to the demands on his schedule. The club needs a new Treasurer!!!

Membership: 48 members

Activities: Nothing to report

Old Business:
Bylaws: Phil N7PA steps down as Chair and Frank WA6VKZ resigned as a member. Pres. Lowell accepted the committees work and terminated the committee's existence. Pres. Lowell thanked Phil N7PA for his work and service to the club and in particular the time, effort and availability he has shown to Frank WA6VKZ.

Field Day: Ken W6HHC gave an accounting of Field Day contacts:

BAND	QSOs	BAND	QSOs
440	13	20SSB	295
220	1	20CW	27
2m	64	40SSB	127
6m	52	40CW	52
10SSB	41	75SSB	85
15SSB	191		

Plus 2 new Members

Wouff Hong: Needed: 1 person to head up ceremony practices and to secure costumes. Tabled until July Regular Meeting.

New Business:
Motion by David W7KTS, seconded by Steve KB1GZ to cancel September Board meeting due to SW Division Convention. Passed.

Meeting Adjourned 8:55AM.

Respectfully Submitted,
David Mofford W7KTS - Secretary

TechTalk -- cont'd from page 4

ohms. The plus sign is not a typo! We want to match the resistive component of the impedance but instead of matching the reactive component we want an equal but opposite reactance. In mathematics a number such as 40 - j42.5 is called a "complex number"; and every complex number has a "conjugate" which is identical except the sign of the "j" (reactive) term is reversed. The conjugate of 40 - j42.5 is 40 + j42.5.

Why is the opposite reactance required? Remember last month we discussed how impedance varies along a transmission line. At the antenna, the transformed conjugate reactive part of the impedance is equal but opposite to the reactive component at the antenna terminals. Since these reactance add, the reactive component becomes zero. Is this tuning the antenna? Well, the SWR along the coaxial line is still the same, but the antenna is operating efficiently because the reactance is canceled. I'll leave the debate as to whether an antenna tuner really tunes the antenna to others, but what is tuned is the whole antenna system (antenna, feedline and the antenna tuner in combination.) The antenna tuner, when properly adjusted, transforms the complex impedance of the antenna and feedline to the 50 ohms resistive that the transmitter needs to put out its maximum energy. It also provides a conjugate component that allows the antenna to operate efficiently.

Real Antenna Tuners:

There is one caveat; an improperly adjusted antenna tuner can result is a large loss of power to the antenna. Two or more different sets of adjustments can result in a proper match, but with significantly different efficiencies. The loss will take on the form of heat or arcing in the antenna tuner and can result in damaged coils, capacitors, and switch contacts. It is best to follow the recommendations of the antenna tuner manufacturer to obtain the most efficient match. Unfortunately, the versatility of an antenna tuner that can match a wide range of impedances also increases the possibilities of misadjustment. For further information you might want to read part one of W8ZR's

-- See **TechTalk** cont'd on page 9 –

OCARC Needs New Treasurer

As reported in the Board Minutes this month, Phil N7PA has resigned as club Treasurer because of demands on his time. (As Phil said…"I can't make the meetings!")

We need someone who willing to fill-in during the last 6 months of this year. Please give our president, Lowell, a call at (714) 997-0999 if you are willing to help out.

…….de Lowell KQ6JD "El Presidente"

Local OC Ham wins "Young Ham of the Year" Award

Rich Thompson WA6NOL, a frequent check-in to our OCARC Nets announced that his 17-year-old son Jay W6JAY had been chosen for the "2003 Young Ham of the Year" award.

Jay is very active and well-known in ARDF contests on a world-wide basis, he is a MARS operator, involved in the HDSCS emergency group, and is the youngest ARRL Official Observer (OO) in history. Jay just graduated from High School and plans to go to UCI for Computer Science and earn two concurrent degrees at the same time!

In the 20 years of the "Young Ham of the Year" awards, this is the first time that a "West Coast" Ham has won the award. Jay with his proud father will receive the award at the Huntsville Ham Convention on August 15.

Congratulations, Jay Thompson W6JAY!!

TechTalk -- cont'd from page 8

The EZ-Tuner in the April 2002 issue of QST (pages 40 through 44.) The author does a good job of discussing the trade-offs of the modern antenna tuner as well as giving some interesting history.

Antenna Tuners at the Antenna:

Some amateurs advocate putting the antenna tuner at the other end of the feedline, so it is located right at the antenna. This does have an advantage and also lots of disadvantages. The advantage is that when the tuner is properly adjusted, the impedance along the feedline will be match the feedline impedance and the SWR will be the ideal 1:1. This means that the additional loss in the feedline due to SWR will be eliminated. Unless the SWR is very large (in which case you should think about using a twin lead type of feedline) this loss is small. For example if your feedline has a nominal loss of 1.0 dB the added loss due to an SWR of 5:1 would be only about another 1 dB.

The disadvantages are obvious. Weatherproofing, remote control or automatic adjusting systems, remote indicators, electrical power to the tuner all have to be coped with. The "Law of Vanishing Returns" should be studied carefully before considering placing the antenna tuner at the antenna. There are some remote tuners that are available commercially that can do the job. I've had a good experience with an SGC unit, but read the specifications carefully before you buy.

The antenna matching circuit, often used right at the feedpoint on an antenna, is a form of antenna tuner! The idea of the antenna matching circuit is to convert the impedance of an antenna to an impedance that is close to that desired to match the feedline. Of course, these devices are usually impracticable to adjust once the antenna is installed; but they do present a better impedance to the feedline to lower the SWR and make the antenna tuner's job easier.

Next month TechTalk will take a look at baluns and RF Chokes and, space permitting, we'll begin discussion of SWR and its more professional equivalent: Reflection Coefficient.

73, de AF6C

BPL Interference is Threat to HAMs

Broadband-over-Power-Line ("Access BPL") is a technology being promoted by utility companies to feed broadband signals onto power lines using high frequency RF from 2-to-80 MHz.

The benefit is that fast Internet access (just like DSL) arrives to your house right on the electrical power lines. …and power lines are everywhere!!

The bad news is that the broadband signals from the power lines will be radiating right on top of 80M, 20M and every popular ham band all the way up to 6M. And it is not just the ham bands, shortwave listeners are at risk too. These BPL signals could transform HF from a quiet haven that hams enjoy into a noisy industry wasteland …..and power lines are everywhere!!!

The ARRL Spectrum Defense Fund is sending the message**…"No! You will not make our frequencies useless!"**

Go to www.ARRL.org to learn more about BPL issue and what you can do.

Keep Morse Code Requirement??

Prior to July 5, 2003, ITU member countries were required to administer a Morse Code test to applicants seeking Amateur Radio HF privileges. On July 5, 2003, that international requirement changed so that each individual administration now may decide for itself whether on not to require a Morse Code test.

What is your view on this issue? Should the FCC keep some sort of Morse Code test/demonstration as a part of future General and Extra class license exams?

Art Goddard W6XD says the ARRL wants to know the OCARC's club viewpoint. (Note: the ARRL will also accept views from individual hams …but the ARRL wants views from HAM Clubs.)

QUOTES from FIELD DAY 2003

"I think that everybody at Field Day worked well together as a team. I got several compliments by visitors on just how well everybody chipped in helping on the set up and tear down. Looking forward to next year." ….de Lowell KQ6JD
(PS: May the Band Gods be better next year)

"VHF and UHF were great. I only operated USB to get my contacts. It feels more like a contest to use USB, but a point is a point….so I was ready to use FM if needed. With HF, there are always new stations to work as propagation moves around the world. On VHF (unless 6m opens) the area of propagation never changes, and you can only hear the same stations. That was just fine since there was much local activity. Thanks to all of the IC706 and FT100 and all of the other all mode VHF capable rigs out there, there was enough activity above 50MHz."….de Chris KE6LEX

"The fifteen meter band conditions were the worst I've seen in 43 years of Field Days. Fried, Sandy and the ARRL gang showed perfect timing showing up for the W6NGO annual toast and remembrance! The Club web page resulted in visitors showing up to join our operation, including Bill N4WRC visiting from Pell City, AL." ….de Bob AF6C

"What a great year for Field Day interaction with the public and with our club members. I was the 20 meter band captain in name only. Other than helping put on a lunch for the team, along with Ken and his team for 15 meters, I really had a back seat job. This year 20 meters was actually run by John-WB6AJE and Howard-WB6TKK. They had a super 20 meter station set up in no time. That left me time to visit with guests that stopped by to see what in the heck we were doing, plus fill in some time on an empty 80 meter station late at nite. Too bad the band conditions weren't great; we were all set to rack up the contacts!"….de Bob KD6BWH

"40M band was extremely noisy. A local ham stopped by and confirmed that local noise has been a problem. 80 meters was dead during the day, but came alive at night. Both 40M & 80M antennas worked well and were easy to erect. FD teardown went very well and in record time."….de Larry K6VDP

"I had a really great time in Southern CA at Field Day. I was exposed to a lot of new types of radio communication. So far, I have just been phone on 2 meter and 70 cm. The ATV and slow scan TV has really got my attention. I really learned a lot at Field Day. Thanks for your hospitality and letting me participate in the events."…..de Bill N4RWC, visitor from Alabama

"I had a great time at FD. Terrific turn out!! Probably had 45 members and visitors. Things ran smoothly. Worst 15M and 10M propagation conditions that I can remember…but my friend Art Goddard W6XD explained that the ARRL is working on a "5-year plan" to improve propagation…I bet it will work!!"…de Ken W6HHC

"I for one had an absolutely wonderful time, and thanks to everyone who made it so!"….de Steve KB1GZ

ORANGE COUNTY AMATEUR RADIO CLUB, INC
P.O. BOX 3454
TUSTIN, CA 92781-3454

First Class Mail

Time Dated Material.
Please Expedite!!