

The Ragchewer

MAY 2004



The Monthly
News Letter
of The Lancaster
& Fairfield
County
Amateur Radio
Club

Club Meetings:

1st Thursday of
every month at
7:30 p.m. at the
Club House on State
Route 37 (Granville
Pike) next to Beavers
Field.

Radio Night:

Every Thursday
of every month
(Except 1st Thursday)
at the Clubhouse,
6:30 p.m.
to 8:30 p.m. on State
Route 37 (Granville
Pike) next to Beavers
Field.

Net:

Mondays 9 p.m.
147.030 MHz (+.6)
146.700 MHz (-.6)
Alternate Freq.
443.875 MHz (+5)

Club Packet BBS:

145.53 MHz
K8QIK-1 BBS
K8QIK-2: OHIO53
(Club Node)

The ARRL Letter Vol. 23, No. 19 May 7, 2004

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ARRL asks FCC to put BPL proceeding on hold
Some amateur rule changes go into effect June 1
Thirteen-year-old Tennessee ham aids rescue attempt
Murder conviction costs Texas amateur his license
Compromise antenna bills pass Hawaii State Legislature
Hamvention to hold joint awards presentation, prize drawing
Logbook of the World renews DXCC enthusiasm
Solar Update

IN BRIEF:

This weekend on the radio
ARRL Certification and Continuing Education course registration
ARRL Emergency Communications course registration
Promote ARRL's 90th anniversary, your club and Amateur Radio!
ARRL McGan Award deadline looms
Armed Forces Day ham-military event set for May 8
Historic Westcott House ham radio special event
Kenya simplifies amateur licensing requirements
**PUT BPL PROCEEDING ON ICE FOR FURTHER INTERFERENCE EVALUATION,
ARRL SAYS**

The ARRL has asked the FCC to put its BPL proceeding on hold to allow more thorough research of BPL's interference potential to licensed radio services. Among other things, the ARRL wants to more closely review the lengthy National Telecommunications and Information Administration (NTIA) Part 1 BPL study released April 27. In comments filed May 3 in response to the FCC's February 23 BPL Notice of Proposed Rule Making (NPRM) in ET Docket 03-47, the League also called on the FCC to apply "considerably more conservative radiated emission limits" to BPL than those applying to "normal" Part 15 devices. Five technical exhibits, including an ARRL-commissioned independent study at BPL trial areas and additional research, accompanied the League's comments.

"The Commission cannot be in such a hurry to deploy BPL . . . that it must sweep under the rug the mounting evidence that BPL is a significant source of interference to licensed radio services and is not in the public interest," the ARRL declared.

The League also took the FCC to task for its willingness to balance BPL's presumed benefits against the potential of harmful interference. "The principal obligation of the Commission in permitting unlicensed devices or systems is to establish a radiated emission level that is sufficiently low that by their operation they will predictably not interfere with licensed radio services," the ARRL emphasized.

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The ARRL told the FCC that applying existing radiated emission limits to so-called "access BPL" systems is inappropriate. "Those levels are far too high and were designed to address the interference of point-source radiators," the League said. "It is obvious that access BPL systems are distributive, line-source radiators" and the FCC should apply a limit low enough to prevent interference to mobile stations that might operate in BPL-served neighborhoods. The ARRL suggested that 0 dBuV/m at the antenna measured at 10 meters (approximately 33 feet) from the power line would be an "acceptable" radiated emission level.

The League further proposed amending Part 15 rules (§15.109) to require BPL systems to incorporate adaptive interference resolution techniques adequate to cause them to cease operation within an hour following a report of harmful interference to an FCC licensee's station. The BPL system then couldn't resume operation within one kilometer (approximately 0.62 mile) of the complainant's station "unless and until the harmful interference is resolved." The ARRL also would require BPL systems to supply detailed information on their systems to a public Web-based database.

The FCC's NPRM offers no support for its conclusion that interference to licensed services would be minimal, the ARRL said, and it noted that amateur licensees have filed more than two dozen BPL interference complaints with the FCC.

"Some of these interference problems have persisted, notwithstanding the good faith efforts of some BPL service providers to resolve the problems," the ARRL noted. "In other cases, the complaints are simply ignored. None has been adjudicated by the Commission, as far as the ARRL can tell." Instead, the League said, amateurs' BPL complaints "remain under wraps" in the Office of Engineering and Technology instead of being handled by the FCC's Enforcement Bureau, which typically deals with power line noise complaints from radio amateurs.

"Mere mitigation" of interference is not sufficient, the ARRL said. "It is the absolute obligation of the operator of a Part 15 device or system to prevent interference." The League pointed out that the FCC's NPRM does not require interference resolution. "The interference to fixed amateur stations located in residences in normal geographic proximity to overhead power lines will be devastating and will preclude Amateur Radio communications," the League predicted. It called the FCC's proposed mitigation techniques "too little, too late to avoid widespread interference."

Referring to its main BPL study, the League said measurements at one site within a BPL test system in Emmaus, Pennsylvania, "exceeded FCC Part 15 limits by up to 20 dB or more." At another test site in Whitehall, Pennsylvania, using another technology, the study concluded that the BPL signals--while apparently within Part 15 limits--"would have interfered seriously with reception of Amateur Radio signals."

"This proceeding should be placed on hold for a year in order to work out appropriate interference avoidance and resolution standards," the League concluded.

The League was among more than 1000 individuals and entities commenting in the proceeding by the May 3 deadline. Reply comments are due Tuesday, June 1. On the eve of the comment deadline, the FCC denied several requests--including one from the ARRL--to extend the comment period.

The League's comments are posted on the ARRL Web site

<http://www.arrl.org/announce/regulatory/et04-37/ARRL_04-37_Comments.pdf>.

MINOR FCC AMATEUR RULE CHANGES BECOME EFFECTIVE JUNE 1

The FCC says minor amendments to various Amateur Radio (Part 97) rules become effective June 1. The regulatory changes, which the FCC made on its own motion rather than in reaction to any petitions, appeared May 5 in the Federal Register.

The most extensive and substantive rule change involves §97.307, Emission standards, where the FCC revised the wording of §97.307(d), which defines spurious emissions. The updated language imposes a slightly higher standard on newer transmitters or amplifiers of any power level. Starting June 1, the rule will provide that: * the mean power of any spurious emission from HF transmitters or external RF power amplifiers installed after January 1, 2003, must be at least 43 dB below the mean power of the fundamental emission. the mean power of any spurious emission from HF transmitters or external RF power amplifiers installed on or before January 1, 2003, must not exceed 50 mW and must be at least 40 dB below the mean power of the fundamental emission. If the mean power output of such as transmitter is less than 5 W, the attenuation must be at least 30 dB.

Still exempt from the provisions of §97.307(d) are transmitters built before April 15, 1977, or those first marketed

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The FCC also has redefined what constitutes an Amateur Radio operator. The change reflects the advent in the late 1990s of the Universal Licensing System <<http://wireless.fcc.gov/uls/>> electronic licensee database. Under the amended §97.3(a)(1) an amateur operator is "a person named in an amateur operator/primary license station grant on the ULS consolidated licensee database to be the control operator of an amateur station." The current rule defines an amateur operator as "a person holding a written authorization to be the control operator of an amateur station."

Another change eliminates Technician or Technician with Element 1 credit licensees from the classes of operators permitted to prepare Element 1 (5 WPM Morse) and Element 2 (Technician written) examinations.

The Commission ordered the rule changes and additional wording updates within the context of a larger, wide-ranging Notice of Proposed Rule Making (NPRM) in WT Docket 04-140. That NPRM addresses several Amateur Radio-related petitions and proposes revisions to operating privileges (see "FCC Proposes Wide-Ranging Changes to Amateur Service Rules--Not Restructuring" <<http://www.arrl.org/news/stories/2004/04/15/102/>>). It also denied several petitions.

The FCC continues to seek comments on the various proposals put forth in WT Docket 04-140. Comments are due by Tuesday, June 15, and reply comments by Wednesday, June 30. Among other changes, the FCC has recommended adopting the ARRL's "Novice refarming" plan <http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513084388>.

YOUNG HAM AIDS EFFORT TO RESCUE CLASSMATE

Jordan Webb, KI4AVG, of Knoxville, Tennessee, had a feeling he should take his 2-meter handheld transceiver along on an April 30 field trip. Heading off with his eighth-grade class to remote Abrams Falls in Tennessee's Smoky Mountains, the 13-year-old decided to throw his handheld into his backpack--just in case.

"I didn't think I would have to use my Icom V-8, but I packed it anyway," Webb told ARRL.

As it turned out, while swimming Vine Middle Magnet School classmate Christopher Drinkard was pulled under the water of Cades Cove by strong currents from Abrams Falls. Webb and another classmate, Zach Hubbs, jumped into the water to help Drinkard when Webb remembered the radio in his backpack.

Webb alerted a teacher that he had his radio and hoped that if he could get to high-enough ground, he might be able to call for help. After scrambling up a hill, he was able to contact Jim Bond, K6SPY, in Knoxville. Bond alerted authorities to the situation, and emergency medical personnel were able to respond relatively quickly to the isolated area. If someone had had to hike out, it would have taken considerably longer. Unfortunately, despite rescue workers' quick response, Drinkard did not survive.

Tennessee Assistant Section Manager David Bower, K4PZT, observed that the incident occurred in a part of the Smoky Mountains where cell phones typically don't work. "Ham radio was the means used to request help when this emergency first happened," he said.

A ham for about one year, Webb is a member of the Anderson County Amateur Radio Emergency Service, the Radio Amateur Club of Knoxville and several other ham radio groups in the Knoxville area.

Anderson County ARES Emergency Coordinator Jeff Yawn, KF4UVT, said Webb has spent Kid's Day in his shack, and he called him "a fine, upstanding young man."

"I know he did all he could to help his friend," Yawn added.

FCC REVOKES CONVICTED KILLER'S AMATEUR LICENSE

Roger Thomas Scaggs, W5EBC, will not get to keep his Amateur Radio license while he serves out a lengthy prison term that could keep him behind bars at least for the next decade. The FCC in April adopted an Order of Revocation <http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-04-1068A1.doc> in the case of the Texas amateur licensee, now in prison for killing his wife in 1996. Unless Scaggs challenges the Order, it becomes effective June 2.

"We conclude, based on the evidence of his conviction for murder, that Mr. Scaggs lacks the basic requisite character qualifications to be and remain a Commission licensee," the FCC said in the Order of Revocation, released April 23.

Last November, the FCC issued an Order to Show Cause, giving Scaggs 30 days to provide notice of appearance to present evidence at a hearing on the effect of his felony conviction on his qualifications to remain an FCC licensee and to determine if his license should be revoked.

Scaggs did write David H. Solomon, chief of the FCC's Enforcement Bureau, to argue that his record as a licensee did not warrant license revocation. The presiding judge determined, however, that Scaggs' letter did not constitute a notice of appearance. The judge concluded, instead, that Scaggs had waived his right to a hearing and certified the case to the Commission for disposition. The FCC subsequently decided to revoke Scaggs' amateur license.

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An Advanced class ticket holder, Scaggs has been a radio amateur since 1954, and the FCC says he's got a clean Amateur Service record. Following his murder conviction in 1998, the court sentenced him to 32 years in prison and levied a \$10,000 fine. Scaggs, who turns 65 in June, won't have an opportunity for parole until he's about 75. He reportedly is attempting to appeal his murder conviction in US District Court.

The FCC said it found that Scaggs' conviction "mandates the conclusion" that he does not possess the necessary qualifications to be or remain an FCC licensee. The FCC said it "considers relevant" evidence of any felony conviction as indicative of an applicant's or licensee's likelihood of obeying the law and FCC rules and policies. Originally developed for broadcast applicants and licensees, the FCC subsequently extended its policy to include licensees in the Amateur Service and others.

REWORKED AMATEUR ANTENNA BILLS PASS HAWAII STATE LEGISLATURE

Two Amateur Radio antenna bills have cleared the Hawaii State Legislature and are on their way to the governor for her signature. But both bills emerged from the legislative process with language substantially different from that proposed in the original measures, both sponsored by Rep Ken Hiraki (D-28). Following lengthy negotiations and a House-Senate conference, both bills got unanimous Senate votes and healthy majorities in the House. Because they could affect Hawaiian amateurs living under deed covenants, conditions and restrictions (CC&Rs), the legislation has attracted some attention on the mainland. ARRL Pacific Section Manager Kevin Bogan, AH6QO, says the next step is to encourage Gov Linda Lingle to sign the measures. He says that while they represent only incremental improvement in the antenna situation for Hawaiian amateurs living under CC&Rs, they also provide a basis for future gains.

"We accepted incremental progress to achieve some accommodation for Amateur Radio antennas," Bogan said. "We established a presence and laid positive groundwork." He's calling on Hawaii hams to urge Gov Lingle to sign the two measures into law.

HB 2773 opens the door for amateurs living in condominiums to make arrangements with the homeowners' association board to erect antennas without having to change the CC&Rs--often a more difficult process. HB 2774 applies only to a relatively few amateurs who live in agricultural-zoned property under CC&Rs. "We declined the restrictive terms proposed for the rest of us," Bogan said. Hams "among the fortunate few" who meet the criteria for HB 2774 also can cut a deal with their homeowners' boards to erect antennas--also without having to change the CC&Rs.

Both measures require homeowners' association boards to provide a written explanation if they deny permission to install an amateur antenna.

The two measures faced strong opposition from several condominium associations, which argued that the original bills were too broad, required condo and subdivision associations to approve any antenna installations and would give government the power to override private CC&Rs.

"Testimony by condo associations at both the House and Senate hearings was against any language that would not give the homeowners associations the final authorization in any antenna installation," Bogan said. Eleventh-hour wrangling involved reaching consensus on "a very limited area of compromise" by the ham radio team and condo association representatives on both bills.

The final versions of the two measures represent "a nudge toward reasonable accommodation" by homeowners' association boards, Bogan said. "The bills do not take away board powers, but they give the boards some pro-antenna powers otherwise denied to them by CC&Rs."

Bogan hopes the existence of the new legislation and the necessity to provide reasons for denials in writing will cause homeowners' and condo associations to "be more thoughtful" in their treatment of hams.

Texts of the two bills, HR 2773 <http://www.capitol.hawaii.gov/sessioncurrent/bills/hb2773_cd1_.htm> and HR 2774 <http://www.capitol.hawaii.gov/sessioncurrent/bills/hb2774_cd1_.htm> are available on the Hawaii State Legislature Web site.

HAMVENTION TO COMBINE AWARDS PRESENTATION, PRIZE DRAWINGS

Dayton Hamvention 2004 will cap three days of activities Friday through Sunday, May 14-16, with a combined awards presentation and prize drawing Sunday afternoon as Hamvention draws to a close. This is a change from past years, when awards presentations were held in conjunction with a Saturday evening banquet, now discontinued. The 2004 Hamvention awards ceremony/prize drawing activities will take place in the 7000-plus seat main arena at the Hara Arena complex Sunday at 1 PM.

This year's award winners include ARRL President Emeritus George S. Wilson III, W4OYI, who is the recipient of Hamvention's 2004 Special Achievement Award. Hamvention's awards committee cited Wilson for his decades of service to Amateur Radio through the ARRL, his public service and emergency communications work and his determination to overcome the debilitating effects of a 1995 stroke. Honored with Hamvention 2004's top award--Amateur of the Year--is Dave Kopacz, KY1V/VP5X. An ARRL member, Kopacz created and funded a program that gives young hams an opportunity each year to win an expenses-paid DXpedition trip. Receiving Hamvention's 2004 Technical Excellence Award is Barry Sanderson, KB9VAK, recognized for developing the RDFT multi-channel, multiphase slow-scan television

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Drawings for the winners of remaining unclaimed hourly prizes and the grand prize will follow the awards presentations.

"The world's largest amateur radio gathering and trade show" also has returned to its traditional name of "Dayton Hamvention," the sponsoring Dayton Amateur Radio Association has announced. The "Dayton" was dropped from the Hamvention name a couple of years ago, although many amateurs long have referred to the event simply as "Dayton."

The 53rd Hamvention takes place at Hara Arena in Trotwood, Ohio, a Dayton suburb. The theme of this year's show is "The Year of the Contact." For more information, visit the Hamvention Web site <<http://www.hamvention.org/>>.

LOGBOOK OF THE WORLD DXCC CREDITS SYSTEM RENEWING DXCC ENTHUSIASM

The DXCC credits component of ARRL's Logbook of the World (LoTW) <<http://www.arrl.org/lotw>> secure contact database got off to an enthusiastic and busy start Thursday, May 6--a day later than planned. ARRL Membership Services Manager Wayne Mills, N7NG, says the much-anticipated LoTW DXCC component not only is making it easier for members to apply QSO credits to their DXCC records, it seems to be renewing overall interest in the DXCC program.

"Several hundred users had linked their Logbook accounts to their DXCC accounts in the first 24 hours the DXCC component was on-line," Mills said. "I'm thrilled to see people getting interested in DXCC again."

An ARRL member from Missouri earned the distinction of becoming the first to qualify for an initial DXCC certificate using only LoTW "virtual QSL" records. Another amateur--ARRL Midwest Division Vice Director Bruce Frahm, K0BJ--used LoTW credits to update his DXCC record and now has qualified for the DXCC Challenge.

The Logbook of the World database has grown to be a repository of some 42 million individual contact records submitted by users in the US and abroad. When both QSO participants submit matching contact records to LoTW, the result is a "virtual QSL" now good for DXCC credit. Mills says more than 2.5 million QSO matches already exist in the system.

For more information, contact the Logbook of The World staff <lotw-help@arrl.org> or visit the LoTW Web site <<http://www.arrl.org/lotw>>.

SOLAR UPDATE

Ra the Sun god Tad "Walking on the Sun" Cook, K7RA, Seattle, Washington, reports: Average daily sunspot and solar flux further dropped from last week to this week, with average daily sunspot numbers down by nearly five points. Average sunspot numbers for the past two weeks were 52.7 and 48.1.

For the short term, we can expect quiet geomagnetic conditions--good for HF propagation. Daily solar flux values are expected to stay below 100 until around May 18. Geomagnetic conditions should stay quiet until May 20. Two small sunspots now are facing Earth, and helioseismic holography reveals no substantial sunspots on the sun's far side.

Scant sunspots this weekend will likely make 20 meters the best overall band for worldwide DX, with less long-distance propagation on 15 meters.

Sunspot numbers for April 22 through 28 were 90, 63, 64, 45, 47, 28 and 32, with a mean of 52.7. The 10.7 cm flux was 117.1, 115.3, 111.6, 107.1, 99.6, 95.1 and 89.5, with a mean of 105. Estimated planetary A indices were 4, 20, 11, 12, 7, 5 and 8, with a mean of 9.6. Estimated mid-latitude A indices were 5, 34, 17, 17, 5, 2 and 7, with a mean of 12.4.

Sunspot numbers for April 29 through May 5 were 25, 46, 65, 41, 50, 63 and 47, with a mean of 48.1. The 10.7 cm flux was 88.5, 89.4, 94.2, 97.5, 91.3, 87.4 and 88.5, with a mean of 91. Estimated planetary A indices were 4, 12, 13, 6, 7, 10 and 13, with a mean of 9.3. Estimated mid-latitude A indices were 3, 9, 8, 4, 6, 6 and 12, with a mean of 6.9.

IN BRIEF:

* This weekend on the radio: The Armed Forces Day Radio Activity (see below) is May 8. The Mid-Atlantic, Nevada and Oregon QSO parties, the VOLTA Worldwide RTTY Contest, the CQ-M International DX Contest, the FISTS Spring Sprint, the Internet CW Sprint Contest and the 50-MHz Spring Sprint are the weekend of May 8-9. The RSGB 80-Meter Club Championship (data) is May 12. The US Counties QSO Party (SSB), Portuguese Navy Day HF Contest, Manchester Mineira CW Contest, Anatolian RTTY World Wide Contest, His Majesty the King of Spain Contest (CW) and the ARCI Newcomer's Run are the weekend of May 15-16. The RSGB 80-Meter Club Championship (CW) is May 20. See the ARRL Contest Branch page <<http://www.arrl.org/contests/>> and the WA7BNM Contest Calendar <<http://www.hornucopia.com/contestcal/index.html>> for more info.

Promote ARRL's 90th anniversary, your club and Amateur Radio! The League is calling on affiliated clubs, public information volunteers and others to lend a hand in promoting ARRL's 90th anniversary. "We have created several resources to help promote the 90th, but there are lots of other opportunities gain added public recognition for clubs and for local Amateur Radio activities," said ARRL Media Relations Manager Jennifer Hagy, N1TDY. ARRL--the National Association for Amateur Radio was founded in 1914 by Hiram Percy Maxim, later 1AW, and Clarence Tuska, later 1AY. Visit the ARRL Public Relations Department Web page <<http://www.arrl.org/pio>> for additional information. Certificates will be given to clubs or individuals who put on public Amateur Radio demonstrations or displays through the end of 2004. ARRL invites photos and/or information about your local public relations

The Lancaster
and Fairfield County
Amateur Radio Club

Public Service Communications



Edward Campbell, WD8PGO
Fairfield Co. EC

2002/2003
Officers:

President:
Charles Snoke
N8KZN

Vice President:
Tom Moore
KB8USK

Treasurer:
Ed Campbell Sr.,
WD8PGO

Secretary:
Jon Larabee
KC8RUI

Activities:
Connie Snoke
KC8LPN

Station Engineer:
John Hilliard,
W8OF

Trustee:
Richard A. Schleiffer,
W9ZZX

50-50 Drawing
Kay Hanna
KC8HJW

Flower Fund:
Marie Moore, KB8VOL
653-9092

Editor:
Bob Bickel
N8UTE

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E.M.A. Mock Disaster Drill
Saturday May 22
Meet at the Bremen School
At 8:00 A.M.

May Birthdays

WA8HIO Steven Campbell
KC8HJW Kay Hanna
WA8GFO Ronald Kennedy
KB8JXR Jason Lint
WA8YSC Ivor "Hollywood" Rutan
N8MGN Norman Stout
N8KZN Charles Snoke
Francs "Dee" Whited
Happy Birthday To All



**Drop in and see us on Radio Night,
Thursday evenings at 6:30 PM.**

Check out our Club Web Site at: www.qsl.net/k8qik

CENTRAL OHIO CW LEARNING NET

The CW Learning Net is Every Friday night at 8:00 P.M. on the W8CMH repeater 145.490 (-). Portion of 2 hour net is devoted to letter learning and the balance to QSO designed to promote speed development. Carl, AA8YY is Net Control.

SLOW SCAN TV NET

The COSSTV (Central Ohio Slow Scan TV), <http://www.qsl.net/n8tut/sstv>, Net is the first Sunday of every Month at 7:00 PM. The group meets on the W8CMH repeater 145.490(-). All you need is a 2m radio, a computer with a sound card, and the W95SSTV software. The Software is available on the internet at <http://www.siliconpixels.com/W95SSTV/W95dload.htm>.

UNIVERSAL RADIO TOP 80 ITEMS: Prices & Specials

▶ ALINCO

Order	Model	Regular	Comment	Price	Pg.
#4238	DJ-196T	\$139.95		\$139.95	67
#1596	DJ-596T	219.95		219.95	67
#3610	DJ-X10T	329.95		329.95	21
#2020	DJ-X2000T	769.95		499.95	21
#1980	DR-135T	169.95		169.95	62
#4236	DR-135TP	269.95		269.95	62
#3621	DR-605TQ	339.95		339.95	
#0620	DR-620T	369.95		338.95	62

▶ AOR

AOR promotion ends 06/30/04.

Order	Model	Regular	Comment	Price	Pg.
#3705	AR5000A+3B	\$2499.95	Free SWL book #2984	\$2499.95	22
#0083	AR8200Mk3B	589.95	Free SWL book #2984	589.95	23
#1860	AR8600Mk2B	889.95	Free SWL book #2984	889.95	22

▶ DRAKE

Drake promotion ends 06/30/04.

Order	Model	Regular	Comment	Price	Pg.
#0082	R8B	\$1469.95	Free Cal. & Book	\$1469.95	16

▶ GRUNDIG

Grundig promotion ends 06/30/04.

Order	Model	Regular	Comment	Price	Pg.
#0800	Satellit 800	\$499.95	Free G1000A #1010	\$499.95	6
#3500	S350	99.95	Free SWL book #2984	99.95	6
#0300	YB-300PE	79.95	Free SWL book #2984	79.95	
#0400	YB-400PE	149.95	Free G1000A #1010	149.95	6
#0550	YB-550PE	99.95		99.95	7

▶ ICOM

ICOM promotion ends 05/31/04.

Order	Model	Regular	Comment	Price	Pg.
#0208	208H	\$319.95	Free DT830D DVM	\$319.95	61
#0703	703 Plus-15	729.95	\$40 Coupon+Hat	689.95	58
#2703	703-18	689.97	\$140 Coupon+Hat	549.97	58
#3450	706Mk2-G	769.95	Free RMK706	769.95	58
#0718	718	619.95	Free UT106	619.95	58
#0074	746 Pro	1649.99	\$200 Cpn.+Hat +PS125	1499.99	58
#1756	756 Pro II		\$200 Cpn.+Hat +PS125	2349.99	58
#1910	910H	1199.95	Free Icom Hat	1199.95	61
#2100	2100H-25N	174.98		174.98	61
#0102	2200H	229.95	New! Expected in July.	229.95	61
#0272	2720H	379.95	Free DT830D DVM	379.95	61
#0041	7800	10599.90	Free Jacket & Hat	10599.90	57
#1002	PCR1000-02BON	369.95	Free SWL book #2984	369.95	17
#3333	R 3-26	369.95	Spectrum Chart	369.95	18
#0005	R 5-06	199.95		199.95	18
#3550	R10-05	299.95	Spectrum Chart	299.95	19
#0020	R20-06	499.95	New. Expected 06/15/04	499.95	19
#0175	R75	549.95	Free UT106 + book #2984	549.95	11
#1850	R8500-02	1489.95	Free book #2984 +Hat	1489.95	17
#4429	T2H Sport	99.95	Free Metal Flashlight	99.95	64
#3052	T7H	189.95	Free Metal Flashlight	189.95	64
#0690	T90A	259.95	Free Metal Flashlight	259.95	64
#0088	V8	139.95	Free Metal Flashlight	139.95	64
#4080	V8000	189.95		189.95	61
#0838	W32A	269.95	Free Metal Flashlight	269.95	64

▶ JAPAN RADIO CO.

JRC promotion ends 06/30/04.

Order	Model	Regular	Comment	Price	Pg.
#1545	NRD-545DSP	1799.95	Free JRC ST-3	\$1799.95	12

▶ KENWOOD

Kenwood promotion ends 05/31/04

Order	Model	Regular	Comment	Price	Pg.
#4211	TH-D7Ag	\$349.95	\$25 Coupon	\$324.95	63
#2222	TH-K2AT	149.95	\$20 Coupon	129.95	63
#0066	TH-F6A	329.95	\$20 Coupon	309.95	63
#3699	TH-G71A[H]	239.95	\$20 Coupon	219.95	60
#0271	TM-271A	179.95	\$20 Coupon	159.95	60
#4116	TM-D700A	499.95	\$25 Coupon	474.95	60
#1621	TM-G707A	279.95		279.95	60
#3565	TM-V7A	399.95	\$50 Coupon	349.95	60
#0480	TS-480SAT	1199.95	\$250 Coupon ^	949.95	54
#2480	TS-480HX	1299.95	\$250 Coupon ^	1049.95	54
#0570	TS-570D[G]	964.95	\$50 Coupon +Logbook	914.95	54
#2519	TS-570S[G]	1124.95	\$50 Coupon +Logbook	1074.95	54
#1978	TS-2000	1749.95	\$200 Coupon +Mousepad	1549.95	54
#2797	TS-2000X	2249.95	\$300 Coupon +Mousepad	1949.95	54
#1937	TS-B2000	1549.95	\$200 Coupon +Mousepad	1349.95	54

▶ SANGEAN

Sangean promotion ends 06/30/04.

Order	Model	Regular	Comment	Price	Pg.
#3505	ATS-505P	\$119.95	Free Propo book #0027	\$119.95	8
#1069	ATS-818ACS	199.95	Free SWL book #2984	199.95	8
#1909	ATS-909	239.95	Free SR25V AM/FM/TV	239.95	8
#1080	PT-80	159.95	Free SWL book #2984	159.95	8

▶ TEN-TEC

Ten-Tec promotion ends 06/30/04.

Order	Model	Regular	Comment	Price	Pg.
#0321	RX-320D	\$328.95	Free SWL book #2984	\$328.95	13
#0340	RX-340	3950.00	Free 2004 Passport	3950.00	15
#0350	RX-350	1199.00	Free 2004 Passport	1199.00	14

▶ YAESU

Yaesu promotion ends 05/31/04.

Order	Model	Regular	Comment	Price	Pg.
#2786	FRG-100B	\$599.95	Free SWL book #2984	\$599.95	13
#3070	FT-50RD-41	269.95		269.95	66
#1817	FT-817ND	629.95	New version +RefCard	629.95	56
#2319	FT-840	599.95		599.95	56
#1467	FT-847	1799.95		1799.95	56
#1857	FT-857D	779.95	New version	779.95	56
#1897	FT-897D	889.95	New version	889.95	56
#2360	FT-1000MPv	2089.99	Free Yaesu Hat	2089.99	56
#2633	FT-1000Field	1799.95	Free Yaesu Hat	1799.95	56
#2800	FT-2800M	179.95		179.95	62
#3780	FT-7800R	279.95		279.95	62
#0080	FT-8800R	369.95		369.95	62
#0890	FT-8900R	429.95		429.95	62
#3120	VR-120D	199.95		199.95	20
#0500	VR-500	299.95		299.95	20
#0050	VR-5000	599.95	Free SWL book #2984	599.95	20
#0176	VX-2R	179.95		179.95	66
#1795	VX-5R BLACK	229.99		229.99	66
#4430	VX-5RS SILVER	229.99		229.99	66
#0777	VX-7R SILVER	329.99		329.99	66
#0778	VX-7RB BLACK	328.99		328.99	66
#3187	VX-150/64B	129.99		129.99	65



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