

# SOLID COPY

**November 1999**

**RADIOACTIVITY**

## **NOVEMBER MEETING**

Friday, November 19, at 8:00 PM, Welborne United Methodist Church, Maybeury Drive at Patterson Avenue. The program for this meeting will be a fox hunt. This event is for experience levels from beginner to seasoned participants. Instructions will be provided at the meeting prior to the hunt. Charge up your H-T and bring it along. See feature article on page 3 and Internet InSites column.

## **COMING EVENTS**

Our Christmas Social will be held in place of our regular December meeting, December 17 at 7:00 p.m. The club will furnish chicken, rolls and drinks. Members are asked to bring a side dish or dessert. Last year we had lots of yummy food and a good time. Mark your calendar now and plan to join us.

FrostFest 2000 will be held on January 16 from 8:30 AM until 3:30 PM at The Showplace. Volunteers are needed for everything from setup (on Saturday) to closing. Security, ticket sales, talk-in and food service are some of the areas where help is needed. Jim Clark, N3JJF will chair the event again this year. Contact any Board member (see back) or Jim Clark, N3JJF to volunteer. Let's make FrostFest 2000 the biggest and best ever!

## **VE EXAMS**

Monday, December 6, 1999 at 7:30 PM at the C. E. Curtiss Elementary School, 3600 W. Hundred Road (Route 10), Chester, VA. Pre-register with TONY AMATO, KR4UQ, at 717-5237. Tony's web page for test information is: [http://www.kr4uq.org/Pages/ve\\_exams.htm](http://www.kr4uq.org/Pages/ve_exams.htm)

Saturday, December 11, 1999 9:00 AM at J. S. Reynolds Community College, 1651 East Parham Road, Building B, Room 201. Pre-register with PAT WILSON, W4PW at 932-9424 or email at [w4pw@arrl.net](mailto:w4pw@arrl.net) . Pat's test information web page is: <http://www.mcws.net/pat/hamtests.htm>

## **RULES & REGS**

News from the ARRL and FCC

## **TWO NEW BUREAUS CREATED AT FCC**

The FCC will add two new bureaus-- the Enforcement Bureau and the Consumer Information Bureau--effective November 8. Chairman William Kennard announced their creation during testimony on the FCC's Five-Year Strategic Plan before the House Telecommunications Subcommittee.

"This reorganization is the first step in a larger effort to streamline and modernize the FCC," remarked Kennard. Establishing these bureaus "signals the enormous importance of these functions in our transition from an industry regulator to a market facilitator."

David H. Solomon, FCC Deputy General Counsel since 1994, will head the Enforcement Bureau. It will consolidate enforcement functions-- including amateur--and personnel from the Commission's existing Common Carrier, Mass Media, Wireless Telecommunications and Compliance and Information Bureaus.

Current FCC Legal Adviser for Enforcement Riley Hollingsworth, K4ZDH, will get a new title as part of the reorganization: Special Counsel for Amateur Radio Enforcement. He hopes the reorganization will allow him to devote more time to amateur radio enforcement.

Lorraine C. Miller is Kennard's choice to be Bureau Chief of the new Consumer Information Bureau. Currently Miller heads the Office of Congressional Relations at the Federal Trade Commission. The new CIB will consolidate the FCC's Gettysburg Call Center (to be renamed the Consumer Center) as well as staff from various bureaus who handle consumer complaints and public information requests.

Richard Lee, now Compliance and Information Bureau Chief has been appointed Senior Director of Licensing Analysis in the Chairman's office. He will advise the FCC on consolidating licensing functions across the agency.

Tnx ARRL Letter Online, October 29, 1999

## **ITS GETS 75 MHz**

The FCC has allocated 75 MHz of the spectrum around 5.9 GHz for use by the "Intelligent Transportation System". The System provides services for improving highway safety. This co-primary allocation for Dedicated Short Range Communications systems at 5.850 to 5.925 GHz includes the upper portion of a secondary Amateur Service allocation. Hams share 5.650 to 5.925 GHz with government radars and non government fixed satellite service uplinks. The FCC already has allocated 5.725-5.825 GHz for UNII devices to provide short-range, high-speed wireless digital communication under Part 15. Uses will include traffic light control, traffic monitoring, travelers' alerts, automatic toll collection and traffic congestion detection. Other proposed uses of ITS would include electronic inspection of moving trucks and emergency vehicle traffic signal preemption.

In September 1998, the ARRL expressed concern regarding the assignment of the spectrum at 5.9 GHz. The League asked the FCC to compensate the Amateur Service by raising the remaining Amateur and Amateur Satellite allocations at 5.650 to 5.725 and 5.825 to 5.850

GHz to non government primary "to insure against future preemption by non government services with higher allocation status."

The FCC expressed sympathy with the Leagues concerns but said that hams have 275 MHz in the band, mostly used for point-to-point networks. Given amateur radio's inherent frequency agility, the FCC said it believes "spectrum sharing between the amateur service point-to-point links and DSRC operations is viable."

Tnx ARRL Letter Online, October 29, 1999

## **WORLD AMATEUR RADIO CORNER**

### **VY0: NEW MULTIPLIER**

Beginning January 1, 2000, Nunavut Territory. VY0 will count as a new multiplier for contests that use political delineation including the International DX Contest, the RTTY Round-Up and the 10 Meter Contest. In contests that use ARRL/RAC sections for scoring--including November Sweepstakes and the ARRL 160 Meter Contest--Nunavut counts for Northwest Territories/Yukon and is not a new multiplier. Field Day and the IARU HF World Championship also are not affected.

Nunavut Territory, was created in April 1999 from territories formerly part of the Northwest Territories. Within Canada, it remains a territory, not a new province.

Tnx ARRL Letter Online, October 29, 1999

### **DITS 'N DAHS**

A column about miscellaneous topics

### **WIAW RECEIVES BEQUEST**

A generous bequest from an Ohio ham will enable the Maxim Memorial Station W1AW to plan upgrades and improvements to station equipment and facilities. The W1AW Fund was made possible with funds from the estate of the late Harold A. Jones, WB8AMI. The bequest will provide funding for support of day-to-day operations, ongoing maintenance and future improvements at W1AW.

Tnx ARRL Letter Online, October 29, 1999

### **CELL PHONE DANGERS TO BE STUDIED**

The Center for the Study of Wireless Electromagnetic Compatibility at the University of Oklahoma plans to conduct a scientific investigation of possible dangers of cell phone use at gas stations and aboard airplanes. Some gasoline retailers have banned cell phone use, fearing that they could cause fires and explosions. The aircraft study will look at current and future navigational systems. For more information on the Center, visit <http://www.ou.edu/engineering/emc> .--The Center for the Study of Wireless Electromagnetic Compatibility

Tnx ARRL Letter Online, October 22, 1999

### **RICKY RESCUES FELLOW HAM**

Ricky Rothbart, KF6VSH, of San Rafael, California is 10 years old and received his Technician ticket in April. Ricky and his father, George Rothbart, KF6VSG, were in the family car headed home. Ricky was in the back seat monitoring his favorite frequencies on his H-T. "At about 6:10 PM, he suddenly said, 'Hey Dad, there's a guy on the radio who is bleeding all over the place and needs help!'," relates his dad.

The other ham was mobile in a remote area and his cell phone was not working. He had sliced his arm on plate glass and was bleeding profusely, asking for help on the air.

Ricky identified himself and asked for the man's location and further details. Father George used his cell phone to contact a family member of the injured man as requested, and then dialed 911. The Rothbarts were able to give the 911 dispatcher all the necessary information.

While studying for their licenses, George Rothbart told his son that someday he might be able to use this new skill to save property or life. Although a bit skeptical at first, he is now convinced. "I found that ham radio still works great, and through ham radio a 10-year old can make a difference."

Tnx ARRL Letter Online, October 8, 1999

### **FOXHUNTING 101**

T-hunts, bunny chasing, fox hunts, RDF or ARDF--these are terms for radio direction finding. RDF is used to locate sources of interference to various forms of communications, to track stolen cars or missing pets, migrating animals, persons in distress, downed airplanes. It is also used by amateurs for fun.

The sport of T-hunting is practiced all over the globe. Procedures vary from one locale to another. As a hide-and-seek activity, amateurs try to locate hidden transmitters either on foot or in vehicles. using various types of equipment.

"Foxhunting" or ARDF usually refers to a kind of contest where participants walk through woods and parks with a map and compass, seeking the whereabouts of a half-dozen hidden transmitters over a period of several hours.

T-hunting refers to hunts where hams drive vehicles with RDF-equipped vehicles. If several persons travel together in one vehicle, one can concentrate on driving while another monitors signals from the radio and moves the antenna, while another notes positions on a map. Mobile T-hunters can win by being the first one to locate the transmitter or having the lowest mileage.

Someone takes a transmitter, antenna, and audio source to a selected spot, and then makes continuous or intermittent transmissions. For beginner hunts, the "fox" may make brief transmissions, encouraging the hunters to come find them. They may give clues to guide participants. The transmitter is usually stationary, but some prefer mobile "bunnies." Sometimes more than one transmitter is used. With the combination of location and antenna, the transmitter signal can be made to appear as if it is coming from some other location. This makes it difficult for hunters to get reliable bearings. Various obstacles and road obstructions can make the hunter's job even more difficult.

Hunters work individually or as teams to locate the hidden station(s) using their portable or mobile gear.

Equipment used can be an H-T, a shielded H-T (enclosing it in a box), attenuators, and antennas. A popular quad antenna has three to five elements usually built as diamonds. PVC pipe or wood forms the boom and thin wire strung on fiberglass spreaders forms the elements. "Stiff wire" versions are a variation which is more tree-resistant (mashed elements can be reshaped compared with "strung wire" quads which are likely to break.) Yagis are also popular and work well provided that the mast is attached to a good balance point. Whatever antenna is chosen, the ability to change polarization quickly is important. Hidden transmitters can work on any polarization. Using the wrong polarization can attenuate the direct signal while enhancing reflected and scattered signals (from buildings and terrain features.)

A homing or dual-antenna RDF has a pair of vertical antennas, a switching circuit, and a direction sensor with a left-right indicator. One type of dual antenna popular with hams is the phase-front detector or Time-Difference-of-Arrival (TDOA) set. Doppler type devices take directional readings hundreds of times per second, continuing to indicate the bearing after the signal is gone.

The information presented here is from the Homing In web site, <http://members.aol.com/homingin/index.html> by Joe Moell, K0OV. Mr. Moell also writes a monthly Homing In column in 73 Amateur Radio Today magazine and is the author of several publications.

### **INTERNET InSITEs**

Amateur Radio, Electronics and Technology Related Websites

#### **UALR SHUTS DOWN CALLSIGN LOOKUP**

The University of Arkansas at Little Rock (UALR) has shut down its Amateur Radio Callsign Lookup Page "for an indeterminate time" and probably for good. The primary reason given was the FCC's new database format and location--necessitated by the switch to the Universal Licensing System. Begun four years ago, the UALR site was among the first--if not the first Web-based call sign servers.

Up-to-date FCC amateur licensee and call sign information now is available from the ARRL at <http://www.arrl.org/fcc/fcclook.php3> .

## **VANITY CALL INFORMATION**

Amateur Vanity Call Sign Headquarters <http://www.carroll-usa.com/vanity/>

Michael E. Carroll, AA4BP. of Huntsville, Alabama is the web master of a new web site devoted to vanity call signs. Users can find out if a call sign has been submitted to the FCC, a soon-to-be-available call sign list, and a list of "creative" call signs, plus other things. --thanks to J. D. Delancy, K1ZAT

TNX ARRL Letter Online, October 22, 1999

## **HOMING IN - RADIO DIRECTION FINDING**

<http://members.aol.com/homingin/index.html>

Check out the Article Index, the Let's Go T-Hunting, International-Style Foxhunting..., Equipment Ideas..., and Foxhunting for Scouts links.

BMG Engineering, Radio Direction Finding, RDF, T-hunt, Fox hunt,... <http://members.aol.com/BmgEngInc/> Home Brew Articles -- Tutorials -- Jammers and Other "Problem" Signals, Safety, Triangulation, Multipath and more Amateur Radio Direction Finding Web Ring <http://www.webring.org/cgi-bin/webring?ring=foxhunt:list> list of sites belonging to this web ring

## **CODE PRACTICE AND NETS**

Wednesdays 8:00 p.m. 28.210 MHz -- Code Practice with Becky, KS4RX Announcement on 146.88 RATS repeater about 7:55 p.m. announcing the text to be sent if no QSO.

Thursdays 7:00 p.m. 146.88 MHz -- Information Net -- Net controls Bill, K4WMA, or Pat, W4PW

Thursdays 7:30 p.m. 146.88 MHz -- Trader's Net -- Net controls Bill, K4WMA, or Pat, W4PW Buy, sell or trade amateur -related equipment

Mondays & Wednesdays 7:30 - 8:30 PM 146.565 MHz Simplex Code Practice by Lin KT4JT

Mondays 8:30 PM Freddie AD4NB and Wednesdays 8:30 PM Lin, KT4JT -- "Tomato Net" 146.565 MHz Simplex

If you know of other nets or code practice please let me know. Tnx, Marie

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