

PCsat

NEWINGTON, CT, Feb 1, 2002--Walk outdoors with a packet-equipped H-T and send a message while PCsat is flying overhead, and it will get to anyone, anywhere in the world within seconds! So says Bob Bruninga, WB4APR, about the PCsat Amateur Radio satellite. This functionality comes from a "bird" that was constructed on the cheap using commonly available components--including a tape measure from Home Depot for an antenna.

"PCsat is going great, and we are very pleased to see about a dozen users on it on every pass," Bruninga said.

Short messages can be sent point-to-point via PCsat to other amateurs just about anywhere on Earth, assuming the recipient has his or her radio turned on and is tuned to the local Automatic Position Reporting System (APRS) frequency. One-line messages also can be sent for e-mail delivery via the Internet.

Built last year under Bruninga's tutelage by midshipmen at the US Naval Academy, PCsat--the acronym stands for "Prototype Communications Satellite"--cost something like \$50,000 altogether. And, as an Associated Press report on PCsat pointed out recently, that even included the cost of the airline tickets to Alaska, where PCsat was launched with other Amateur Radio payloads by the Kodiak Star launcher. Bob Bruninga, WB4APR (center), looks on as ensigns Dan Boutros (left) and Brad Schwenzer (right) describe PCsat's telemetry sub-module.

Even Bruninga found himself amazed by the satellite's messaging capabilities. "Since any packets digipeated by PCsat are picked up by various sat-gates and injected into the world-wide APRS Internet stream," he said, "then if the packet is a message to someone, it will come out the other end--live--back to RF in his area for delivery on his local APRS frequency anywhere in the world!" He said the Amateur Radio on the International Space Station packet system has simi-



lar capability.

"Of course, one should be more amazed when it does work, than when it doesn't," Bruninga said. "After all, this is ham radio." Even so, he said it demonstrates the power and potential of PCsat, the ARISS packet system "any other digipeating satellite" to get a message for the traveler out and delivered via the amateur satellites and satellite monitoring sat-gates.

"So for fun," Bruninga suggested, "instead of sending your boring grid square or position, try sending someone an e-mail via satellite!" from your packet station. As an APRS digipeater, PCsat is designed to relay UI (Unconnected Information) packets, and no connections are per-

mitted. Uplinks are at 1200 and 9600 baud on 145.827 MHz and 435.250 MHz, respectively. All downlinks are at 1200 baud on 145.827 MHz.

"Set your UNPROTO to 'UNPROTO APRS VIA NOCALL' and it will work via either the ISS or PCsat," Bruninga explained. "People feed both downlinks into the worldwide APRS Internet system, where they will go everywhere."

Bruninga says to send an "e-mail" while using APRS software, "just send a message to 'EMAIL' and make the first word of the email be the recipient's e-mail address." For those not using APRS software, Bruninga advised using an APRS message consisting of this data format: :xxxxxxxx: message goes here {n . Bruninga says that ":xxxxxxxx:" is a fixed-length nine-character 'TOCALL' field padded with spaces and bracketed by colons. It ends with a line number preceded by "{".

Details on using PCsat are on the [PCsat Web site](#)



**PRESIDENT BUSH
ADDRESSES FLORIDA
ARES NET**

President George W. Bush spoke January 31 via Amateur Radio to members of the Northern Florida Amateur Radio Emergency Service Net (NFAN). The president was in Florida to spotlight five volunteer groups for their value to the new Office of Homeland Security-among them the Volusia County Amateur Radio Emergency Service (ARES).

"I want to thank all the volunteers who help make sure that Florida is prepared for any kind of emergency," the president said in part, after checking in around 9:15 AM to a regular session of the 75-meter ARES net. "I want to thank you all for helping your communities be prepared."

Northern Florida ARRL Section Manager Rudy Hubbard, WA4PUP, said Bush spoke from a portable station set up at a Daytona Beach-area fire station. At the request of ARES Volusia County Emergency Coordinator Joette Barnett, KG4HPN, John Schmidt, AF4PU, and Clifford Fraser, KE4HIY, arranged to have the station ready as a demonstration of Amateur Radio's role in emergency preparedness and in the hope that Bush would be willing to address the 75-meter net. Hearing the president check into the net was a pleasant surprise, Hubbard said.

ARRL President Jim Haynie, W5JBP, said he was "extremely gratified" that President Bush recognized the valuable service Amateur Radio operators provide in times of emergencies. "I know that all hams in the United States stand ready to do their part in America's Homeland Security Program," Haynie commented. Haynie has said that defining Amateur Radio's role in homeland security would top his list of initiatives for his second term.

Hubbard said a copy of proposed expanded Amateur Radio an-

tenna (PRB-1) legislation was given to the President and to the president's brother, Florida Gov Jeb Bush, for possible introduction in next year's Florida legislative session. "We Amateur Radio operators will volunteer however we're needed, and maybe it will be seen that we can greatly help the nation if we have the antennas we need," Hubbard commented. The proposed bill would seek to extend Florida's PRB-1 law to include private deed covenants, conditions and restrictions.

Bush's stop in Florida was part of a swing through the southeastern US, which also included stops in North Carolina and Georgia. The Daytona Beach event marked a rare appearance on ham radio by a sitting president. Former President Gerald Ford spoke via a ham radio satellite hookup in 1986.

**PARKERSBURG AMATEUR
RADIO XLUB
JANUARY 14, 2002**

The Parkersburg; Amateur Radio Klub held their January 14th. Meeting at the Bonanza Steak House with President Blame Auville presiding.

Lynn Palmer won the 50/50 Raffle.

There was an introduction of 36 members and guests. The Secretary's minutes were read and approved.

The Treasurer's report was given as \$2,603.15.

The President said the Christmas Dinner was well attended. It was one of the best dinners we have had. Blaine thanked Georgia and Irene for their help. Archie Carpenter's grand-daughters entertained with violin and piano music. Jane McGuffey and Glen Easterling; lead the sing-a-long of Christmas Carols.

Amateur Radio Classes will be held at the Emanuel Baptist Church starting February 12th

at 7PM. Carl Long will teach the class. Call Carl or Blaine for more information.

The President said he felt we should stop the mail box rental (which is \$30 yearly) as we didn't receive much mail. Georgia t4ilhoan offered to let the Klub use her mailing address. It was motioned by Connie Hamilton and seconded by Boo Lyons that we accept Georgia's offer. Motion carried.

Sob Lyons announced the Tuesday Net Control List ass been finished and will be about the same as last year.

Kenny Harris announced testing will be held at the Easy Rider Garage February 9th.

The Half Marathon will be August 17th.

Connie gave a report on upcoming Hamfests. Nelsonville Jan 20th, TUSCO Jan. 27 at Philadelphia, Mansfield Feb. 10.

"Little" John will be having a CW Contest at his farm the weekend of January 26th and 27th. members of the KLUB will be helping him.

The President reminded members breakfast at Shoney's the first Saturday of the month.

Jim Palmer motioned we adjourn, seconded by "Little" John. Meeting adjourned at 7:40'4.

Respectfully Submitted,
Georgia Milhoan, Secretary



ARRL FIELD DAY, AFFILIATED CLUB COMPETITION CHANGES ANNOUNCED

The ARRL has adopted rule Changes affecting Field Day and the ARRL Affiliated Club Competition program. The primary Field Day change--effective with this year's event June 22-23--phases out the Novice Technician station and replaces it with a new station category, the "Get-On-The-Air"--or GOTA--station.

A GOTA station is intended for operation by Novice and Technician operators or by generally inexperienced or inactive amateurs as well as by as-yet-unlicensed or "under-licensed" operators working under the privileges of a licensed control operator (third-party traffic rules apply--see the International Third Party Traffic page on the ARRL Web site <<http://www.arrl.org/FandES/field/regulations/io/3rdparty.html>>). Under the revised rules, any Class A Field Day entry operating at least two transmitters may include a GOTA station, which will not count as an additional transmitter for the purpose of entry category.

The GOTA station may operate on any Field Day band and mode, but only one GOTA transmitter may be in use at any given time. The GOTA station may complete up to 400 QSOs to be counted toward the group's total Field Day score. A Field Day group can claim 100 bonus points if its GOTA station successfully completes 400 QSOs. The GOTA station does not affect the additional VHF/UHF station provided under Field Day rule 4.1.2.

Field Day 2002 will mark the first in which stations throughout the Americas have been invited to participate. As approved at the July 2001 ARRL Board of Directors' meeting, all International Amateur Radio Union Region 2 countries--North and South America--may take part in Field Day starting this June.

Complete Field Day rules and information packet will be available on the ARRL Web Contest Forms and Rules page <<http://www.arrl.org/contests/forms>> in early February. Field Day 2002 pins and T-shirt may be ordered now via the ARRL Web catalog <<http://www.arrl.org/catalog/?category=&words=Field+Day+Pin>>.

Changes to the ARRL Affiliated Club Competition program also were included in the report of the Membership Services Committee (MSC), presented to the ARRL Board of Directors at its January meeting. In accordance with the advice of the ARRL Contest Advisory Committee, five specific affiliated club competition changes will go into effect November 1. Under the revised rules:

- * The requirement that a member must attend at least two club meetings a year in order to be allowed to submit a score for a club in the unlimited and medium categories has been altered. The new rules will allow participation by "a member in good standing, as defined by the club."
- * Medium and unlimited clubs now may define their club service area either as a 175-mile radius circle or as an entire ARRL section. This change will allow clubs from larger states that encompass entire ARRL sections to compete with each other.
- * The percentage of operators who must be members of a club in order for the club to claim a score from a multioperator station has been reduced from 66% to 50%.
- * A station owner no longer must be a member of a club in order for a guest operator at the station to claim the score for that club.
- * Canadian clubs that are full Radio Amateurs of Canada affiliates now may participate in the ARRL Affiliated Clubs competition.

These changes affect ARRL contests that include a club competition--January VHF Sweepstakes, the ARRL International DX Contest, the September VHF Party, the ARRL November Sweepstakes, the ARRL 160-Meter Contest and the ARRL 10-Meter Contest.

Complete rules for all ARRL-sponsored operating events are available on the ARRL Web site <<http://www.arrl.org/contests/announcements/>>. For more information, contact ARRL Contest Branch Manager Dan Henderson, N1ND, n1nd@arrl.org.

Mystery Satellite Identified:

AMSAT News Service reports that a "mystery satellite" that had been transmitting frequency-modulated AFSK and CW on 144.100 MHz for several days was identified as MAROC-TUBSAT, an Earth-sensing spacecraft owned by the Royal Center for Remote Sensing--a Moroccan government agency. The satellite was placed into a polar orbit by a Russian launcher on December 10. When informed of the interference to amateur operations, the agency immediately shut down the 144.100-MHz transmitter. MAROC-TUBSAT also has a downlink at 436.075 MHz, which is switched on over North Africa and Europe when the control stations in Morocco and Germany are active. It has not been heard elsewhere. IARU Satellite Adviser Hans van de Groenendaal, ZS6AKV, is seeking more information from ARRAN--the Moroccan national radio society. ANS via Ray Soifer, W2RS

Acronym alert!

FCC converting ATINs to FRNs: Acronym alert! Acronym alert! Everyone to get from street! (with apologies to the old movie, The Russians are Coming, the Russians are Coming!) The FCC is completing the conversion of Assigned Taxpayer Identification Numbers (ATINs) to Commission Registration System (CORES) FCC Registration Numbers (FRNs). ATINs were issued to amateur applicants--to clubs and to non-US citizens--who did not qualify for a Social Security Number, so they could register for the FCC's Universal Licensing System (ULS). The FCC issued most ATINs, but some were issued by a Volunteer Examiner Coordinator (VEC) or Club Station Call Sign Administrator (CSCSA). An FCC spokesperson said all ATINs should be converted to FRNs by mid-February. The FCC has discontinued the use of ATINs, since the CORES registration process provides an exception for club stations and non-citizens to obtain an FRN. The FRN then may be used to access the ULS, which incorporates the Amateur Service licensing database (among other services).

Man Injured!

Man injured installing antenna: The Electrical Contractor Network <<http://electrical-contractor.net/>> reports that an Indiana man--apparently not an amateur--was critically burned when the antenna he was trying to install came in contact with an overhead power line. The account says that 21-year-old Steven Long of Brazil suffered third-degree burns over half his body in the incident, which also burned the tree to which he was attaching the antenna. When emergency workers arrived, they found the antenna draped across the power line, the tree charred from the fire and Long hanging onto a lower branch. Brazil firefighters had to wait for utility workers to cut power to the line before they could rescue Long. See the Electrical Contractor Network Web site <<http://electrical-contractor.net/ubb/Forum14/HTML/0001-46.html>> for additional details.--submitted by George Corron, AF4JH

DUES!!

Don't forget the 2002 Dues are due. They are:
\$16 for a member
\$24 for a family

CLASSES OFFERED!

Tell all of your friends about the Klub Classes! Amateur Radio Classes will be held at the Emanuel Baptist Church starting February 12th at 7PM. Carl Long will teach the class. Call Carl or Blaine for more information.

NEW KLUB ADDRESS!

The new Klub address will be:

**PARK
1733 Gihon Rd.
Parkersburg, WV
26101**

**Parkersburg Amateur Radio Klub
1733 Gihon Rd.
Parkersburg, WV 26101**