NVARC
Nashoba Valley
Amateur Radio Club

SIGNAL

SPECIAL SERVICE CLUB

September 1997 Volume 6 Number 9

Club Call N1NC

N1NC

Last Months Meeting

There was no meeting last month.

This Month's Meeting

This Months meeting presentation will be by WF1F. His presentation will be "MIR and the EasySATS".

We will be meeting at the Pepperell Community Center at 7:30 PM.

Public Service
Mass Highways Adopt a Road

We are off and running on the Adopt a Road Program. Bob McArthur KE1ED organized the work parties and on Wednesday August 20th we made the maiden voyage up and down Rt 119. Opening the "Men at Work" signs, that are attached under the Adopt a Road sign with the Nashoba Valley Amateur Radio Club credits, for the first time. We used the equipment and bags provided to us by the State.

The following members/guests were present for the cleanup. Bob KE1ED, Herm KE1EC, Earl WR1Y, Jim Hardy N5CZR from Louisiana, Jim AA1PO, Stan KD1LE, and Peter Pozerski.

Earl submitted articles to the local papers and a photographer from the Groton Herald was present for a group picture.

We had seven participants and covering the entire length took about two and one half hours. Future cleanups will probably take less time and of course more participants will speed things up. We have to cleanup monthly through October so Bob will be looking for a new crew for September.

The cleanup was followed by coffee at Johnson's and a tower party at Earls.

From The ARRL Newsletter

The ARRL Letter
Vol. 16, No. 33
August 22, 1997

NEW 1X1 SPECIAL EVENT CALL SIGN RULES IMPLEMENTED

New FCC rules to obtain one-by-one call signs for special events have been implemented, and four coordinators have been authorized to handle call sign requests. The first special event call sign, W3W, was coordinated August 20 at the request of the Scranton Pocono Amateur Radio Klub (SPARK) of Scranton, Pennsylvania. W3W will be activated October 11-12, 1997, during the Steamtown Marathon.

On August 18, the FCC authorized the ARRL, The W5YI Group Inc of Arlington, Texas, the Western Carolina Amateur Radio Society/VEC Inc of Knoxville, Tennessee, and the Laurel Amateur Radio Club Inc of Laurel, Maryland to "coordinate, maintain and disseminate a common database of amateur station special event

call signs." The National Conference of Volunteer Examiner Coordinators (NCVEC) maintains a shared database so that both requesters and coordinators will know which call signs are available at any given time.

The FCC says that special event 1x1 call signs are authorized for use "in conjunction with an event of special significance." This suggests an event with high public visibility, as opposed to a routine ham radio contest or other operating event. However, a special event call sign could be used in conjunction with a contest if one were to occur within the call sign reservation period.

The four special event call sign coordinators have the authority to determine if a request is in keeping with the intent of the special event call sign system. Any licensed amateur may request a special event call sign. Call signs may be requested up to one year in advance of their use on the air. Call signs normally will be granted for periods of 15 days or less. Because of the limited number of call signs available, requesters are encouraged to limit their requests to the duration of the special event.

A block of 750 call signs is available for use in the special event call sign system. The format of each 1x1 call sign consists of a single letter K, N or W prefix followed by a single numeral, 0 through 9, followed by any single letter except the letter X, which is not available to amateur stations.

For more information on the special event call sign system, call 860-594-0300 or e-mail vec@arrl.org. You also can contact any of the other special event call sign coordinators.

FCC POISED FOR GATE 3 GRANTS

Grants for first-day applicants under the FCC's vanity call sign program Gate 3 could start showing up soon. The FCC has been wading through the vanity applications it received prior to the opening of Gate 3 on August 6. On August 22, the FCC reported it had processed vanity applications received up through August 5--the day before Gate 3 opened—but was still dealing with apparently unsuccessful or problematic applications in the so-called "work in process" (WIPS) stack. In a last-minute flurry of activity this week, the FCC granted 232 vanity call signs for applications received from July 17 through August 5. Another 325 applications from that period hit WIPS, and it is those applications the FCC will deal with next, before moving on to Gate 3 applications. The FCC says it received 1613 vanity applications between August 6 and August 20.

MINI-SPUTNIK TO BE TOSSED FROM MIR

To mark the 40th anniversary of the 1957 launch of Sputnik I satellite and the start of space conquest, l'Aeroclub of France and the Russian Astronautical Federation have embarked on a joint venture to launch a miniature, working version of the original Sputnik.

Students from the FR5KJ radio club at Jules Reydellet College in St Denis, Reunion Island, and at the Polytechnic Laboratory of Nalchik Kabardine in Russia are cooperating on the mini-Sputnik I. The miniature will be able to work in space after it's hand-tossed by a cosmonaut from the Russian Mir space station. The Russians will build the satellite body. A transmitter made by the French students will be placed inside and will emit a continuous series of beeps on 2 meters starting October 4, 1997. During any given month, the signal will be able to be received in every part of the world. (The original Sputnik I satellite transmitted a beacon on 20 MHz.)

The idea was to interest youth in space projects and inspire them to consider careers in space-related fields.—AMSAT News Service, with thanks

Philippe Mondon, FR5DN

JOTA information available: Looking for a way to introduce young people to Amateur Radio? When Scouts want to meet young people from another country, they usually think of attending a world Jamboree. But few people realize that each year more than 400,000 Scouts and Guides get together over the airwaves for the annual Jamboree on the Air (JOTA). JOTA is an annual event in which Boy and Girl Scouts and Guides from all over the world speak to each other by means of Amateur Radio. Scouting experiences are exchanged and ideas are shared via radio waves. This presents a terrific opportunity for you (or your club) to host some scouts for this annual event—and introduce them to Amateur Radio! How can you get in on the action? The

ARRL Educational Activities Department has a package of materials that includes brochures (ask for the number of Girl Scout or Boy Scout brochures that you need), ideas for suggested activities, and information on the Boy Scout Radio merit badge and a suggested "radio patch" for Girl Scouts. Or, you can get the material on the ARRLWeb at http://www.arrl.org/ead/#scout. For a package containing the information plus 7 brochures, please send an 8-1/2 by 11-inch self-addressed, self-stamped envelope (SASE), with $1.25 (US) postage on it (add $0.23 for every 5 additional brochures) to: ARRL-EAD, 225 Main St, Newington, CT 06111, ATTN: Scout.—Glenn Swanson, KB1GW

Keogh departs World Radio

Lou Ann Keogh, KB6HP, has resigned as editor of World Radio magazine. An independent ham radio journal, World Radio is published monthly.

E F. Johnson Company to be sold: Transcrypt International Inc has announced it's signed a letter of intent to acquire E. F. Johnson Company, a former ham radio manufacturer. Johnson was a popular manufacturer of ham transmitters, antenna tuners and station accessories during the 1940s, 50s and 60s. Some Johnson ham equipment still is highly prized among collectors. E. F. Johnson is privately held and posted revenues of $79.3 million in 1996. The company manufactures equipment for the public safety and land mobile services. Transcrypt went public in January 1997 and had 1996 revenues of $13.8 million. The total sale price is said to be $34 million. E. F. Johnson Company founded in 1923 by Edgar F. Johnson in Waseca, Minnesota, was one of the first developers of two-way radio systems. The company employs 650 people at its Waseca, Minnesota, facility. For more information, see http://www.transcrypt.com/Pages/News/efj.html.—thanks to David Thompson, K4JRB

Balloon-based repeater a success: A balloon with a crossband repeater aboard was successfully launched August 9 by the North Okanagan Radio Amateur Club (NORAC) of Vernon, British Columbia, Canada. Dubbed VBX (for Vernon Balloon eXperiment), the launch project took place during the sixth annual Sky High Hamfest on Silver Star Mountain. Approximately 70 contacts were made through the airborne repeater—the farthest away in Tacoma, Washington. As of August 14, the balloon still had not been located. Wilfried Mulder, VE7OHM, reports the balloon's path would have taken it south toward California. NORAC is offering a $50 reward plus free admission to next year's Sky High Hamfest to the lucky finder. For more information on the balloon experiment, see http://www.junction.net/norac/vbx.htm, or contact Wilfried Mulder, VE7OHM, gwmuder@junction.net.—RAC; Wilfried Mulder, VE7OHM

CQ-ing cellphone: Maybe it's a bit of an inside joke on the part of cellular telephone manufacturer Nokia of Finland, but Sam Haviland of Farmington, Connecticut, recently discovered that one of the ring options on Nokia's Model 638 makes the phone send CQ in Morse code. Haviland, a Navy veteran, is not a ham but he still remembers the code. Coincidentally, Haviland's father-in-law was F. Cheyney Beekley, W1GS, an early QST advertising manager.

FCC REVISES RF SAFETY "THRESHOLD" LEVELS

The FCC has revised the power level thresholds to trigger a routine Amateur Radio station RF exposure evaluation, and the changes will be welcome news for most hams. When the FCC first decreed a year ago that ham radio stations would have to comply with RF exposure guidelines, it set a 50-W threshold level. The updated guidelines, announced August 25, increase that threshold level on all HF bands except 10 meters, where it remains at 50 W. The FCC made no changes in the RF exposure limits it announced last year.

The new RF safety guidelines are scheduled to become effective January 1, 1998, for Amateur Radio stations.

The FCC went along in part with a request by the ARRL to establish a sliding scale for threshold levels, depending upon frequency. The revised thresholds are 500 W for 160 through 40 meters, 425 W on 30 meters (where the maximum legal power is 200 W), 225 W on 20 meters, 125 W on 17 meters, 100 W on 15 meters, 75 W on 12 meters and 50 W on 10 meters. The threshold for all VHF bands is 50 W. On UHF, the threshold level is 70 W

on 70 cm, 150 W on 33 cm, 200 W on 23 cm, and 250 W on 13 cm and above. Stations operating at or below these respective power levels are categorically excluded from having to perform a routine RF radiation evaluation. However, all stations, regardless of power level, still must comply with the RF exposure limits.

Along with its August 25 Second Memorandum Opinion and Order announcing the changes, the FCC released the "core" text of its long-awaited Office of Engineering and Technology (OET) Bulletin 65, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields. The bulletin contains generic equations that can be used to analyze fields due to almost all antennas, although the FCC warns that "the resulting estimates for power density may be overly conservative in some cases." Hams leery of formulas might opt to wait for the easier-to-use Supplement B to OET Bulletin 65, which will include information designed specifically for evaluating Amateur Radio installations. The supplement promises to detail how hams can determine more simply if their individual stations comply with the new regulations. The FCC says the supplement will contain "information on projected minimum exclusion distances from typical amateur antenna installations."

The FCC said it would issue Supplement B "as soon as a review of the current draft is complete." When it's ready, Supplement B will be available to download from the FCC's Web site, http://www.fcc.gov/oet/rfsafety. The FCC directed inquiries as to the availability of the supplement and other RF-related questions to its RF Safety Program, 202-418-2464; e-mail rfsafety@fcc.gov.

Last year, the FCC established time-averaged maximum permissible exposure (MPE) limits for RF fields in two tiers—for controlled environments (ie, a ham's immediate household, including visitors) and uncontrolled environments (ie, neighbors, the general public). If a routine evaluation of a ham station indicates that human exposure to RF fields could be in excess of the FCC's MPE limits, the licensee must act to correct the problem and ensure compliance. This could include changing operating patterns, relocating antennas, restricting access, changing frequency, output power or emission type or any combination of these and other remedies.

The FCC says that ham radio facilities "represent a special case for determining exposure, since there are many possible antenna types that could be designed and used for amateur stations."

The revised regulations categorically exclude most mobile installations, including those in the Amateur Radio Service, from having to comply with the RF-exposure or station evaluation guidelines. Since the FCC issued its guidelines, additional questions on RF safety have been added to the Amateur Radio examination question pool.

OET Bulletin 65 and the FCC Second Memorandum Opinion and Order are available at http://www.fcc.gov/oet/dockets/et93-62/. More details on the FCC's latest announcement on RF safety will appear in the October issue of QST.

If anyone is interested in some background. I have downloaded several related documents from the FCC; An Introduction to RF Exposure, and their bulletin on evaluating RF exposure.—ed.

AZDEN LEAVING THE US HAM RADIO MARKET

A player in the US ham radio market since the 1970s, Azden is leaving the Amateur Radio business in this country as of August 31. A letter from Azden's Lew Reinberg, W2BIE, cited "the worldwide decline of the business" as the reason for the move. "We entered the US market through this office very late in the game and with older product," Reinberg's letter states. "The lack of growth of the end-user base made it impossible for us to spend the huge amount of capital necessary to design and tool up for a more advanced model."

Azden's pullout applies only to the US market. Azden Vice President Ken Bush said this week that Azden radios continue to be sold in Japan.

Among Azden's product lineup were similar FM mobile transceivers for several bands. The company also marketed some H-Ts and a headset. The company's remaining ham radio inventory has been sold to Amateur Electronic

Supply (800-558-0411; http://www.aesham.com; e-mail help@aesham.com).

Reinberg said that while Azden will stop selling ham radio gear in the US, the company will continue to repair its radios at its Franklin Square, New York, headquarters "for the foreseeable future." Parts and manuals for Azden gear will continue to be available as well.

Sid Wolin, K2LJH, manager of Azden's Communications Division, reportedly plans to retire. Reinberg says he will remain at Azden's Franklin Square office to handle customer questions and process service and repair orders.

For more information, call Azden at 516-328-7500; e-mail azdenus@aol.com; http://www.azdencorp.com.

HAM RADIO WILL BENEFIT FROM NEW ACE SPACECRAFT

Data gathered by the Advanced Composition Explorer (ACE) spacecraft—launched this week from Kennedy Space Center—will be of importance to everyone from Amateur Radio operators to solar and space physicists during the next 2 to 5 years as we approach the solar maximum in 2000.

This spacecraft will serve as the first real-time space weather satellite that will provide forecast centers around the world with valuable real-time information regarding the near-Earth and interplanetary space environments. The latest word is that the spacecraft is functioning perfectly.

The spacecraft is on its way toward an orbital location approximately one million miles toward the Sun, between the Sun and the Earth (at what is known as the L1 point—the first liberation point, or the first Lagrangian point). This is a point between the Sun and the Earth where the various forces which act upon spacecraft (gravity, for example) precisely balance out, enabling the spacecraft to orbit the Sun at the same rate as the Earth, but one million miles ahead of the Earth. ACE will require approximately 113 days to reach its final orbital position and complete its checkout. Data should be flowing from all instruments by then.

The ACE spacecraft is equipped with an array of instruments that will measure such important quantities as the velocity of the solar wind, the composition of the solar wind, the composition of extrasolar and extragalactic matter, and much more. It also has equipment which will allow it to transmit continuously to the Earth. NOAA has set up three primary reception centers that will maintain contact with this datastream 24 hours a day, 365 days a year, for as long as the spacecraft remains operational. This data will then be processed and made available on the Internet for anyone to receive. Real-time ACE data will be available to the public and scientific communities through the SWARM (Solar Warning and Real-time Monitor) software at http://solar.uleth.ca/solar/www/swarm.html. Data are expected to begin flowing from the ACE spacecraft through the near-real-time data system (and through SWARM) by about February 1998.

This availability of data will provide researchers and amateurs with the unprecedented ability to observe (up to 60 minutes before the Earth is impacted) the arrival of major interplanetary disturbances ejected from the Sun. Such disturbances can severely disrupt radio communications, spacecraft operations, and even such things as electrical hydro power generation and distribution.

Having advance word on such disturbances could be highly useful. Hams and professional radio communicators will be able to complete communications or adjust frequencies and transmitter powers prior to the arrival of such disturbances. Power plant operators will be prepared to shift loads in the event of induced electrical currents from strong geomagnetic storms that form as a result powerful solar disturbances impacting with the Earth. Satellite operators will be able to monitor their spacecraft more closely and take appropriate actions to prevent surface charging or other hazardous events from damaging spacecraft.

Observers of these natural phenomena also will benefit. People will be able to drive to favorable dark-sky sites to observe the explosive release of energy in Earth's upper atmosphere that is responsible for forming the northern and southern lights, also known as the aurora borealis and the aurora australis, respectively.—Cary Oler

A MESSAGE WITH THE MUSIC

A recent "Mr. Music" column by syndicated writer Jerry Osborne addresses the appearance on some music albums of messages or phrases in Morse code. For example, at the beginning of the Barclay James Harvest's Ring of Changes, the album's name is spelled out in CW on the first track. Barclay James Harvest member John Lees is a ham (WD4FHD).

Rocker Joe Walsh, WB6ACU, taps out the words "Register and vote for me AR" at the start of the song "Vote for Me" on his album Songs for a Dying Planet. The characters YYZ are belted out on percussion then by the bass guitars on the song of the same name on the Rush album Moving Pictures. Osborne says YYZ is the beacon ID for the Toronto International Airport, and the group's guitarist is a private pilot.

The B-52s use some CW in Planet Claire. So did the Blues Magoos in their album I Can Move a Mountain. In the song "Pencil Rain" by They Might Be Giants, a stretch of code spells out a refrain, in Spanish, of a popular Mexican song. The Roger Waters album Radio K.A.O.S. is filled with Morse code messages, much of it under the music. The cover also has the titles of the tracks spelled out in code.

Osborne says the track "Miss Morse" on the album One Nation Underground by the rock band Pearls Before Swine reportedly spells out various vulgarities in CW.

IN BRIEF:

Bill Petrie, K1ETR, turns 100! Thomas W. "Bill" Petrie, K1ETR, of Waltham, Massachusetts, turns 100 years old today. In a letter, ARRL Executive Vice President David Sumner, K1ZZ, extended hearty congratulations to Petrie on behalf of the officers, directors, members and staff of the League. Petrie's niece, Marcy Just, says that Petrie was born in England and came to the US as a youngster. He is a World War I veteran and is retired from the Waltham Watch Company. He's been a ham for more than 40 years and is still active on the air. Ken Hopper, K2VAM, in Phoenix, Arizona, wrote HQ to say that Bill recently told him he was planning to make a trip up his tower to "tighten some bolts."

Special event call sign ID reminder: When taking advantage of the newly available 1x1 special event call sign program, operators are reminded that a station using a 1x1 call sign must announce its regularly assigned call sign at least once an hour.

KE6MWX Yagi project among science fair winners: Fourteen-year-old Sara Hanna, KE6MWX, of Willits, California, was among the winners at the 46th annual California State Science Fair held in May in Los Angeles. Her project, "Does the design of the driven element affect the radiation pattern of a Yagi antenna?" placed first in the junior division of electricity and electronics. She got a gold medal and a cash award. Last year, Sara finished in second place in the same division with her project comparing Yagi and quad antennas. Her parents are Tim and Sue Hanna, WB9NJS and KE6YKY, respectively.—Tom Orman, KD6VWD

Searchable Code of Federal Regulations: A searchable Code of Federal Regulations, which, of course, includes 47CFR97--the Amateur Radio regulations—is available at http://www.access.gpo.gov/nara/cfr/cfr-table-search.html from the National Archives and Records Administration.—thanks to Ed Hare, W1RFI

Maritime station KPH goes dark: The oldest West Coast maritime station, KPH in California's Marin County 20 miles northwest of San Francisco, has been closed—a victim of a shrinking market for its services and competition from satellite systems. KPH was bought by Globe Wireless, a competitor. KPH used high-speed Morse and SITOR to communicate with ships. The station had operated from the Bay Area for more than 80 years.—thanks to Daniel Mackintosh, W6SPC

US House honors Pasadena Radio Club: The Pasadena Radio Club, W6KA, took advantage of this year's Field Day (June 28-29) to commemorate its 40th year of affiliation with the ARRL. Proclamations from both the US House of Representatives and the California Legislature honored the group's 40 years of public service. The club was founded in 1957 and has been called upon numerous times over the years to help out in emergencies. Club members relayed health and welfare traffic during the days following the 1994 Northridge earthquake. The club also has supported public service activities and events.—Brett R. Henry/Pasadena Radio Club

New England Spectrum Management

This is your chance to find out more about what goes on or to jump in and get involved. The New England Spectrum Management Council is meeting Saturday September 27, 1997. The meeting will be held at the NYNEX/Bell Atlantic in Framingham. The meeting agenda is for the election of officers and directors.

Board Meeting Minutes

No Board Meeting notes available.

NVARC QSL BUREAU

Bring your cards and a QST label to the meeting or to breakfast and the club will take care of the shipping and bureau fee. We sent out two pounds of cards this month.Stan

$The Treasurer's Report $

No Treasurers report available.

CW Practice Nets

The NVARC slow speed net meets Tuesday and Thursday at 7:30 p.m. on 28.123 MHz. Except the third Thursday of the month. That being the club meeting night.

Say What?

"Use the talents you possess – for the woods would be a very silent place of no birds sang except for the best."

Unknown

"But the fact that some geniuses were laughed at does not imply that all who are laughed at are geniuses. They laughed at Columbus, they laughed at Fulton, they laughed at the Wright brothers. But they also laughed at Bozo the Clown."

Carl Sagan

"No amount of sophistication is going to allay the fact that all your knowledge is about the past and all your decisions are about the future."

Ian E. Wilson

"You know how dumb the average guy is? Well, by definition, half of them are even dumber than that."

J.R. "Bob" Dobbs

VE Test Info

Effective July 1, 1997 the new Novice and Technician question pools (elements 2 and 3A) will be implemented for use on all future Novice and Technician examinations. This makes the new Novice Exam 35 questions with a passing score of 26 and the Technician Exam 30 questions with a passing score of 22.

NVARC

Nashoba Valley Amateur Radio Club

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Meetings are held on the 3rd Thursday of the month - 7:30 p.m. - Pepperell Community Ctr.
Talk-in 146.490 simplex
442.90 + 100Hz Repeater
This newsletter is published monthly. Submissions, corrections and inquiries should be directed to the newsletter editor. Articles and graphics in most IBM-PC formats are OK.
You can leave items on PEPMBX or
at Packet address: KD1LE@N1FT.NH

NASHOBA VALLEY AMATEUR RADIO CLUB

IS PROVIDING

EMERGENCY COMMUNICATIONS SUPPORT

FOR THE

NEW ENGLAND REGIONAL SOCCER TOURNAMENT

IN PEPPERELL

OCTOBER 11, 12, AND 13

SATURDAY, SUNDAY AND MONDAY (Columbus Day)

YOUR CLUB NEEDS YOUR SUPPORT
AT LEAST 1/2 DAY or ONE DAY.

CAN YOU DO IT?

What is required?

BRING A 2M HAND HELD (WITH CHARGED BATTERIES)

CHECK IN AT NVARC HQ ON THE FRONT STEPS OF VARNUM BROOK MIDDLE SCHOOL IN PEPPERELL CENTER.

SEE SOME GREAT SOCCER, ENJOY THE WEATHER AND HELP PROVIDE IMPORTANT PUBLIC SERVICE TO THE COMMUNITY AND YOUNG ATHLETES FROM THE U.S. AND CANADA.

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