

NARS NEWS

The Northwest Amateur Radio Society

Houston, Texas

November 1990

CAVES AND HAM RADIO EXPLORED FOR NOVEMBER 16 MEETING TOPIC

Halloween is over but don't let your guard down for you are about to experience bat flights, the "Devil's Sinkhole", cold Mexican caves, stalactites, stalagmites, and oh yes, a little Ham radio thrown into the steamy black pot of November's meeting topic.

Mike Furrey, WA5POK, is a caver or better known to us neophytes as a spelunker. That's one who enjoys exploring caves. He is a member of a Cave Club started in Austin. The club is loose-knit group of guys who travel around the North Americas in search of caves to explore. Furrey has braved the unknown in many caves in Texas and Mexico.

Climbing in and out of caves requires a knowledge of ropes and repelling along with other skills. Furrey uses his "ropework" to scale Ham radio towers like a spider. He can safely drop from the top of a 200 foot tower in about 20 seconds using his own rope harness. He recently was up and down the tower of Roy Hradilek, AD5Q; just ask Roy.

He will show slides of his cave expeditions; he says few people ever see these sights. He will also bring with him his climbing equipment and will teach us the ropes to become a caver, too.

Come visit the "Devil's Sinkhole" (a cave in West Texas), exotic Mexican caves and learn a new way to climb towers. Where could you do so much, and for free, but at a NARS meeting? The meeting starts at 8:00 p.m. Come early for some eyeball QSOing with local Hams.

ELECTION SET FOR 1991 NARS OFFICERS

NARS will hold election of officers for 1991 at the November meeting. The following candidates were selected by the nominating committee:

President - Paul Frantz, KF5SB
V. P. - Bob Chmielewski, N5PJI
Secretary - Barbara Peat, KB5GEZ
Treasurer - BT Burk, N5QVS
Director - Brad Nelson, WD5GNI

Additional nominations will be accepted from the floor at the meeting, or at any time prior to the meeting by advising the nominating committee.

Officers are elected for a period of one year, and the Director-at-Large for two years. They will be officially installed at the NARS Annual Banquet in January.

Members of the nominating committee this year were Ken Harlan, KA5AKG, Chairman; Tom Roraback, KF500; and Bob Welch, KE5IC.

OCTOBER MEETING RECAP

Bob Chmielewski, N5PJI, showed us all about radio control airplanes with model planes and videos. . . Barbara Peat, KB5GEZ, was elected as the new NARS secretary to take over the unexpired term of Curt Furtado, KI5AK. She then won the door prize, a 2M antenna donated by Madison Electronics Supply, Houston. Tel: 729-7300.

***** NARS RAFFLE NEWS FLASH! *****

Winner of the NARS Raffle at the Houston Com-Vention '90 was Joe Ross, AA5BD. Joe lives in Houston and is a member of B-VARC. The prize was a Kenwood TS-440S supplied locally by Madison Electronics. Tel: 729-7300.

* * * P R O P A G A T I O N * * *
by ROY HRADILEK, AD5Q

The fall DX season (aka contest season) is at its peak. On 10 and 15, we have grey line openings along the most densely populated DX paths: Europe and Japan. Signals are loud with an unlimited supply of DX nearly every day. The trend at this time of year is for the high bands to shut down earlier, with fewer opportunities after sunset. This also narrows or closes the windows over the pole into Asia on 10. The lower MUF's also bring good news, as the low bands are opening up.

40 is in excellent shape, with Europe in the evening and Asia and the Pacific late at night and in the morning. Incoming signals from points east and northeast peak from wherever the sun is rising in a window that lasts about an hour. There is activity on 80, too. The high sunspot activity means weak signals on 80, so activity is low. There are a few stations coming through every night on the CW low end and more activity on 75 fone. 160 is not much of a DX band at this point in the cycle, but is a great fone band for stateside work. Many serious DX'ers and contesters can be found on 160 at night.

And then there's 20 - usually open all night. As winter approaches, the band will often close sometime after midnight, especially when fluxes are down. Antarctic long paths are excellent with lots of activity in the morning to southern Asia, the Mid-East, Russia, and Europe. We get a late afternoon pipeline to SE Asia and Japan, but with very little activity. Asians apparently don't get on 20 in the morning for long path the way Americans do. The path is open every day, however, and since few stateside ops watch this path, there is little competition for the rare DX when it shows.

In summary, this is the time of year when all HF bands are jumping with activity. There is a great variety of propagation available, which make the major DX contests of the fall season especially fascinating.

* * * F A R O U T * * *
by JACK DOUGLAS, KA5DNP

The 1990 AMSAT Annual Meeting and Space Symposium held at the Johnson Space Center in October was the largest such event ever held. The 225 participants from around the world included a *Who's Who* of those involved in designing, building, launching and operating Satellites carrying Amateur Radio. Astronauts and college professors, truck drivers and theoretical mathematicians, retirees and computer hackers were there. The 22 papers presented covered subjects from theoretical satellite design to building a simple and inexpensive Satellite station.

The Amateur Satellite program has attracted some of the brightest and most dedicated Hams I have had the privilege of meeting. It's clear they intend to keep making advances and breakthroughs just as they have done in the past.

I have discussed MICROSATS, those amazing 9" cubes that are circling the earth. Just one facet of those birds might serve to illustrate the ingenuity of these AMSAT people.

To keep a satellite from having a cold side and a hot side and to keep it stable, it is desirable to have it rotate. How can you do this over a long period of time with no space for fuel? Well, four antenna elements protrude downward and outward from four corners of one surface. So, they are made of flat spring metal, one side painted black and the other side white. The absorption and reflection of the sun cause "solar torque" creating rotation around the Z axis. Bar Magnets in the four corners running parallel to the Z axis interact with the earth's field causing a flip every time the bird crosses the magnetic equator. Hysteresis rods running the other way damp the oscillations. The end result is a slow rotation with a quick flip at each equator crossing; a stable and terminally balanced satellite!

NARS NOTES

- FIELD DAY RESULTS published in the November QST show NARS competing in Class 4A just in case you couldn't find us in 2A where we belong. With a score of 6,344 points, we placed No. 25 out of 556 which is in the top 4.5% in 2A, and No. 119 out of 1828 or in the top 6.5% of all stations - all categories. This compares to 6.4% and 8.2% respectively last year. GOOD SHOWING, NARS!!!

- PLEASE WELCOME new NARS members:

Stan Burton
Jim Sutherland

- UPGRADES - Matt Haws, KB5MKO, upgraded to General Class, and Jon Littmann, KB5MKP, to Technician.
- CONGRATULATIONS to Al Callender, N5RNV, and Susan Wells, KB5NQC, on receipt of their new call signs.
- FOR NARS INFO see Nov. QST, p.142.

SOUTH-TEXAS BALLOON LAUNCH TO THE EDGE OF SPACE

A balloon experiment is underway in the Houston area. A small two-meter transmitter on 147.435 MHz will be flown to a height of 100,000-plus feet later this year. Coverage from this altitude will include most of Texas, Louisiana and parts of Oklahoma and Arkansas.

The flight transmitter is under construction but the telemetry system is complete and is on the air from a central-Houston location using a back-up low-power transmitter. It can be heard on 147.435 MHz FM. The telemetry can be decoded by attaching a frequency counter to the audio output of any two-meter FM receiver and applying a few simple equations to the frequency of the tones heard and the time required to cycle once thru the complete message.

The message sent by the system is:
TEMP DE WB5HLZ (followed by a long

DXCC INFORMATION

As noted in the November 2nd ARRL Bulletin, ARLB044, the ARRL Awards Committee has accepted the following recommendations of the DX Advisory Committee. Effective October 3, 1990, the German Democratic Republic, Y2 through Y9, is deleted. Because the country was absorbed by the FRG, Federal Republic of Germany, on that date.

Effective May 22, 1990, the People's Democratic Republic of Yemen, 70, and the Yemen Arab Republic, 4W, are deleted. In their place, a new country Yemen, 70, is added effective May 22, 1990. March 1, 1991, has been set as the earliest date for submission of cards for credit for the new Yemen listing.

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'temp' tone) ALTITUDE DE WB5HLZ (followed by a long 'altitude' tone). The message will repeat continuously and the system will be on the air until late October. This should give all interested parties an opportunity to check their equipment and prepare for the actual launch.

The balloon program is coordinated by Burns WB5HLZ. Others involved in power systems, electronics design, packaging, software development, system ground tests, launch arrangements and antenna design include: WB5BGQ, N5EM, N5LCO, N5LKJ, WA5TWT, WA5WOD and WA5ZIB. More volunteers will be needed as launch day approaches for net control (two meters, 70 cm and 40 meters), tracking, data collection and finally "DF'ing" when the package comes back to earth.

More information on the balloon program will be posted as it becomes available. For now, monitor the signal on 147.435 MHz and get your equipment ready for launch to THE EDGE OF SPACE!

de WA5ZIB via Brad Killebrew, N5LJV

The Northwest Amateur Radio Society
is an ARRL Special Service Club
* * ARRL Club No. 2120 * *

NARS BULLETIN BOARD

NARS MEETS the third Friday of each month at the Cypress Creek EMS Bldg. 16650 Sugar Pine Lane (beneath the water tower) which is one block east of Kuykendahl and two blocks south of FM 1960. Meeting time: 8 p.m. Eyeball QSO's: about 7:30 p.m.

NARS BREAKFAST every Saturday 8 a.m. Strack Farms Restaurant, located at 5707 Louetta Rd. - Informal ragchew.

NARS NEWS is published monthly by Northwest Amateur Radio Society
Send news to Jim Clarke, N5FIX
Editor, 14800 Memorial Drive #200
Houston 77079 Tel: 493-5908

BOB WELCH, KE5IC
7811 Theisswood Rd.
Spring TX 77379

NARS NETS

NARS RAGCHEW - MONDAY 8 p.m.
28.444 MHz (Ed, KB5AEL)

NARS INFO - WEDNESDAY 8 p.m.
146.06/66 MHz (Ken, KA5AKG)

EMERGENCY NETS

Northwest Harris County ARES

WEDNESDAY 8:30 p.m.
146.06/66 MHz (Scott, N5KEU)

Harris County OEM RACES

SUNDAY 7 p.m.
146.34/94 MHz (Bob, K5HUT)

FOR INFORMATION ABOUT NARS, PLEASE
CALL KEN EDINBORGH, W5BKK, 376-7660

NARS REPEATER FREQUENCIES

146.06/66 MHz 449.375/444.375 MHz

NARS DIGIPEATER

Freq. (145.07 MHz) Alias (NARS)
Call (W5BKK-1)