Mountain Spark Gaps

New Providence Amateur Radio Club
P.O. Box 813
New Providence, NJ 07974-0813
ARRL Club Number 0213

April, 1987

Nets:

FM Phone	147.030 MHz	Sundays at 9:00 p.m. EDT	Bill King, W2LTJ
RTTY	145.750 MHz	Sundays at 8:00 p.m. EDT	John Sheetz, K2AGI
Westlink	145.750 MHz	Sundays at 7:30 p.m. EDT	Tom Brown, KA2UGQ
Westlink	147.030 MHz	Whippany Rptr. Simulcast	Tom Brown, KA2UGQ
Rusty CW	28.150 MHz	Wednesdays 9:00 p.m. EDT	Floyd Harvey, KA2DDG

MEETING SCHEDULE FOR APRIL

April 27: John Sheetz, K2AGI will show a videotape on Packet Radio. The tape will show actual conversations on packet and give a good explanation of what can be done on todays and tomorrows packet network. There will also be a few station setups so you can see what it takes to get on the air with packet.

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* NPARC Meetings are held in the meeting *
* room of the New Providence Memorial *
* Library on Elkwood Avenue at 8 PM on the *
* second and fourth Mondays of each month *
* unless otherwise noted. Business meet- *
* ings are held on the second-Monday *
* meetings and speakers will be scheduled *
* for the fourth-Monday meetings. *
* *

NPARC CALENDAR

April:
27: NPARC Meeting: Packet Radio

May:
3: Hamfest: Tri-County RA (Scotch Plains)
9: Hamfest: Cherryville RA (Flemington)
11: NPARC Business Meeting
15\
16:>Hamfest: Rochester ARA (Rochester, NY)
17/
17: Hamfest: Old Bridge RA (Old Bridge)
18: Hamfest: Bergen ARA (Bergen? See page 2)
25: Memorial Day
26: NPARC Meeting

June:
7: Annual NPARC Fox Hunt
26/27: FIELD DAY!

MEET OUR COMPLAINTS MANAGER

TIDBITS

Andy Stillinger, WA2DKJ reported that the club generator has cranked its last crank. The cost of repairing the generator didn't justify its use once a year for field day, so the club donated it to Andy. Several members have offered the use of their generators for Field Day this June 27/28.

On Field Day, Tom Brown, KA2UGQ may once again be able to get permission from the principal of Governor Livingston High School to use their baseball field for field day. As some may recall, the dugouts in the field were destroyed in early September of last year, but they have since been repaired and the school will most likely allow us to use them.

The Mountain Spark Gaps

Editor ..... Tom Brown, KA2UGQ
Distribution ..... John Sheetz, K2AGI

The
New Providence
Amateur Radio Club

HAMFEST WATCH

May 3 (Sunday): The Tri-County RA Hamfest at the Passaic Township Community Center, Valley Road, Stirling, 9 AM to 3 PM. Buyers $3, Sellers $8 ($10 with AC). Talk-in on 147.255 (+600), 449.975 (-5 MHz), or 146.52 (simplex). More info: Dick Franklin, W2EUF at 232-5955.

* May 9 (Saturday): The Flemington Hamfest at the Hunterdon Central High School Field House, 8 AM to 4 PM. FCC tests given. Talk-in on 146.52 (simplex), 147.975 (-600), or 147.615 (-600). More info/tickets: Bill Inkrote, K2NJ at 788-4080.

* May 15 - 17 (Fri/Sat/Sun): The Rochester Hamfest and Computer Show at the Monroe County Fairgrounds, Route 15A, Rochester, New York. Sellers: outdoor spots $5, indoor spots $16; spots good for all 3 days. Buyers: $6 advance, $7 at door. Special Hotel rates available to hamfesters at Rochester Marriott Inn (716-359-1800). Shuttle busses available to Rochester's newest and largest shopping mall, *The Marketplace*, except on Sunday. Talk-in on 146.28 (+600). More info/tickets: William Shaw, N2EKR, 174 Croydon Road, Rochester, NY 14610.

May 17 (Sunday): The Old Bridge RA Ham/Computerfest at the Old Bridge Skating Arena, Route 516 and Cottrell Road, 8 AM to 3 PM (6 AM sellers). Admission $5 buyers, $12 sellers. Advance save $1. Talk-in on 147.12 (+600) and 146.52 (simplex). More info: Chris Mohr, N2DHN at 727-3983.

May 18 (Monday): The Bergen ARA swap-n-sell at the Bergen Community College, 400 Paramus Road, 8 AM to 4 PM. Buyers free, sellers $5. Talk-in on 146.79 (-600) and 146.52 (simplex). More info: Jim Greer, KK2U at 445-2855 evenings.

* = Don't miss this one!

NPARC CLASSIFIEDS

---*For sale* by Bob Willis, K2GLS:

Antenna Coax Relay: Dow Key 117 VAC coil with DPDT external contacts; $15

Miscellaneous items for sale:

- 12" speaker
- Air duct coil: 4" diameter, 5" long
- Heathkit W5-M HI-FI 50-watt amplifier
- Heathkit SB-10 SSB adapter for Heathkit Apache or DX-100
- PE-101C Dynamotor
- Many other small items

No offer refused. Contact Bob at 543-2454 (home) or 386-4666 (work).

---*Wanted* by Joe Reid, K2JAO:

Control box for 8-wire Cornell Dublier EICD-45 TR-44 Ham/M rotator, working or not.

Keyers, paddles needed for Lafayette Middle School Amateur Radio Club.

If you have these items, contact Joe at 635-7272 (daytime) or 766-7174 (evenings).

---*For sale* by John Bennett, KB2CBC:

Heathkit SB-102 all-band CW/SSB tranceiver modified with digital frequency display accurate to 100 Hz. Fan installed to permit cool operation of rig even when using RTTY. Comes with power supply, spare set of final amplifier tubes, and speaker. Contact Tom Brown, KA2UGQ at 464-7958 after 3 PM if intrested.

---*For sale* by Al Roehm, WA2OBJ (276-2997):

- Johnson Viking Invader 200 80-10 meter transmitter with 6146 finals
- New Johnson 6N2 6 and 2-meter radio
- Breting 14 receiver, mid-1930's vintage
- 75A3, R390, R390A, all w/product detectors.
- 2-meter convertor, Criterion
- WW2 RBB receiver (made by RCA), covers 550 kHz to 4 MHz
- 10-meter beam
- HV transformers - 3 KV, 1KV @ 1 ampere
- Double selsyn motors
- Prop pitch motor

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If you would like to place an ad in the Mountain Spark Gaps, contact Tom Brown, KA2UGQ at any NPARC meeting, at 464-7958 (after 3 PM), KA2UGQ @ WA2SNA-1 on packet, or

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THE *OTHER* LICENSE-FREE BANDS

Most people don't realize that there are segments of the radio spectrum that have been provided, in Part 15, for low power experimentation. This is LICENSE FREE experimentation provided you stay within certain limitations on power output and antenna size. Here are the bands considered:

160-190 kHz: 1 watt input to a 50 foot long antenna. Length is considered to be tip of antenna to the end of the feedline. Any mode allowed. CW beacons are preferable. Audio components work well at these frequencies (transistors).

510-1600 kHz: 100 mW into a 10 foot antenna (total length). Any mode allowed (CW preferable for beacons). For DX purposes 512-527 kHz is used for 'space' from AM station QRM, with exception of a few aeronautical beacons operating in this segment.

49.82-49.92 MHz: 100 mW into a transmitter-mounted, 39" long antenna. The antenna must be PERMANENTLY mounted to the transmitter. If a microphone is used, it must also be PERMANENTLY mounted to the transmitter. Any mode allowed. AM & FM typically used, as well as CW beacons. Remote operation is not permitted unless for telemetry purposes.

Thoughts on 160-190 kHz and 510-1600 kHz operation:

1. Vertical transmitting antennas work BEST! Top loading does not constitute additional length. Horizontal antennas have loss at these frequencies and results are very poor A COUPLE OF MILES AWAY!

2. Ground radials do help a lot. The better the ground system, the better range you will get. A good ground rod in a wet spot is a good start.

3. Remote mounting of LF & VLF beacon transmitters is DESIRABLE! There is no better way to get ALL of your signal into the antenna.

4. Keyers for CW beacons can range from the "cog wheel" mechanical type to the micro-chip ID'ers. This part is the free lance art. What do you want to beacon? I have been receiving "TH" cw beacon on 189.52 kHz and it sends a QSL address in Colts Neck at 5 WPM. Sounds like a cogwheel.

5. Receiving antennas do not have to be big to be better. The VLF and LF spectrum is full of noise. Best antennas include the ferrite bar "spiderweb" type due to the heavy nulls found with them. Directivity can be enhanced with a pre-amp. I have had good success using a 20 meter rotatable dipole and a pre-amp.

Generally speaking, reception of beacons depends on the amount of "DX-pertese" one has. It can be noisy but IT CAN BE FUN & CHALLENGING! So try listening to these bands. See what you can hear. I am very curious what people hear in thier own neighborhood. Please drop me a note if any of this has been helpful to you. If it is, then I will go into reception a little more. For more info, look for 'Low & Medium Frequency Scrapbook' by Ken Cornell, W2IMB. Enjoy a radio challenge! *[Ed. note: Both "TH" on 189.5 kHz and "HRH" on 186.3 kHz have been monitored by KA2UGQ using a Kenwood Ts930 and a 40/80 meter dipole antenna]*

--From KA2RAF

ORIGIN OF THE TERM "HAM"

After WW1, the Navy wanted to abolish Amateur Radio because interfered with their communication. The Harvard Amateur Radio station was HAM, after the initials of the guys that ran it. They testified in congress to keep Amateur Radio and were called HAM's. It is also likely that the term HAM for the station was inspired by the term HAM actor.

[Ed. note: There also used to be a magazine called Home Amateur Mechanic which had some circuits for radios in it. The radios were then called HAM radios.]

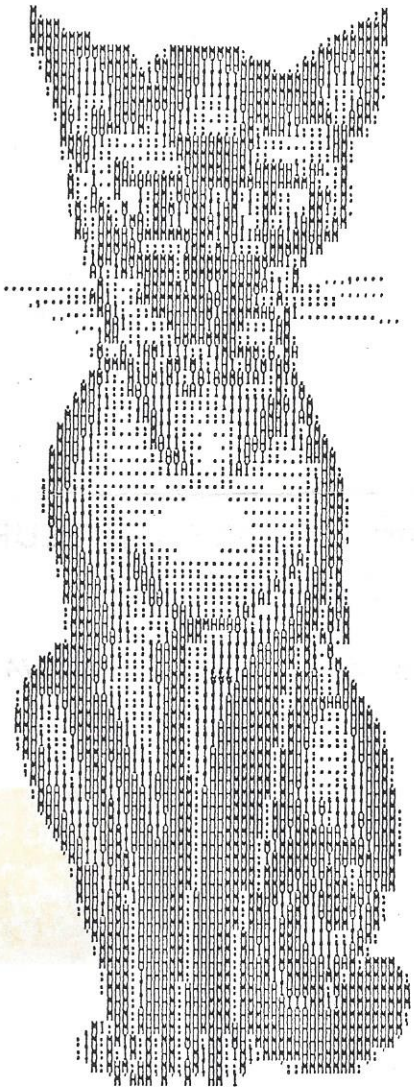
--From N2XS

SATELLITE PACKET EXPERIMENTS REPORTED

Experiments are now being conducted to link packet radio stations in the United States via a high-speed digital link from coast-to-coast. W3IWI reports a full-time satellite-linked packet channel is being used for relaying packets between the Washington D.C. and San Francisco areas. The western terminus is at Stanford University (WB6FFC-1) and the eastern terminus is at the University of Maryland (WA3YMH-1). Both ends of the link are operating on 145.01 MHz in their respective areas. The two sites are interlinked at 9600 baud (running over a 56 kilobaud full-duplex satellite link).

--From Amsat News #094/1987

Old Builders Philosophy: Tighten it until it strips, then back off a quarter turn.



F A N G
A SIAMESE PUSSY CAT
ORIGINATED BY DON, WA6PIR

NEW PROVIDENCE AMATEUR RADIO CLUB, INC.

FINANCIAL STATEMENT FOR
FIRST QUARTER 1987

Balance Forward	394.20
Income	
Dues Received	424.00
Interest	6.52
Auction	75.45
Total Income	505.97
Expense	
Postage	49.50
Total Expense	49.50
Balance	850.67