

# MOUNTAIN SPARK GAPS

NPARC - The Radio Club for the Watchung Mountain Area



**N2XJ**

**Club Callsign**

**VOLUME 42**

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**NO. 1**

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**MEETING ON 08 JANUARY 2007 AT SALT BROOK SCHOOL**

**A Presentation on Software Defined Radio - See description below**

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**President's Column by James Kern, KB2FCV**



I would like to start this column off by first saying Happy New Year and I hope that everyone enjoyed the Holidays. This is my first ever column as a President, and as the new President of NPARC I would like to thank everyone for putting their confidence in me and electing me to head up such a great club made up of wonderful (and brilliant!) people. This year I have an exceptional slate of officers to work with and I anticipate that we will put together a fun and exciting year for the club. As incoming President, I would like to thank the outgoing President AL K2AL for his years as President. I enjoyed serving under him as Vice President

and enjoyed his leadership as a member of NPARC. I certainly have some big shoes to fill!

Janary 2007 brings some monumental changes to ham radio. As you may have heard, Morse Code will no longer be a requirement for any of the license classes. As a CW operator, I hope to see Morse around for a long time to come. I feel that CW will still draw the people that are interested in the mode for years and years to come. As a mode of communication, it never ceases to amaze me just how simple the radio circuit can be to make a QSO. The announcement certainly caused a stir of emotions and opinions! One thing is for sure, if anything, I do hope it brings something positive to the hobby.

The club Holiday Luncheon was once again a Success. The food was excellent and the company was even better. Kieran and I both had a great time. Charlie Brown's did a nice job with lunch there. Once again, congratulations to all the reward recipients of 2006. It's always nice to see people get some well deserved rewards for some hard work. I'm looking forward 2007, be sure to stay tuned for upcoming club meetings and events!

73 de James, KB2FCV . . . .

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## Software Defined Radio - Technical Lecture and Practical Demonstration

At our January 8th meeting, Dr. Frank Brickle AB2KT will be our guest speaker. Frank will talk about and demonstrate software defined radios (SDRs).



Frank is actively involved in SDRs on many fronts. He is currently a software engineer with FlexRadio Systems, which builds SDRs for the amateur community. <http://www.flex-radio.com/> He also serves on the ARRL's SDR Working Group and on the AMSAT group working on SDRs for the Eagle satellite. He is the author of an interesting article in the Nov/Dec. 2003 "QEX" entitled "Automatic Signal Classification for Software Defined Radios".

Many people believe SDRs will someday become the dominant technology in amateur radio.

Oversimplifying a lot, SDRs use a minimal amount of hardware to convert HF signals to a lower frequency, but then use computers and soundcards or other sound processing components, to filter, demodulate, and process the received signal (or conversely, modulate the transmitted signal). You can read more at [http://en.wikipedia.org/wiki/Software-defined\\_radio](http://en.wikipedia.org/wiki/Software-defined_radio) and <http://www.arrl.org/tis/info/sdr.html>

The beauty of SDRs is that their signal processing components can be reconfigured fairly easily, even over the air. Cell phone companies currently use SDR technology to "beam" updates to their cell phones. In the amateur radio world, SDRs will be the only radios flown in AMSAT's next big satellite, Eagle, and an SDR transponder (SDX) is slated to be tested in the next SuitSat II deployment in late 2007!

This promises to be a fascinating evening, so please plan to attend... 7:30 p.m. at the Salt Brook School, as usual. Note below the door change to enter the school.

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## New Club Officers for 2007

The result of the knock-down drag-out election in the fall for this year's officers is as follows:

President:	James Kern, KB2FCV
Vice President:	Bruce Havourd, KQ2E
Secretary:	Jim Brown, WB2EDO
Treasurer:	Dave Barr, K2YG
Activities Chairman/ Committee:	Al Hanzl, K2AL Vince Lobosco, KC2IZK Andy Stillinger, WA2DKJ

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## **School Construction Alert!**

Construction at the Salt Brook School is scheduled to begin in January. When it does, the lower right parking lot near the cafeteria will be closed and there will be no access to the school from doors on the lower level. You will need to enter the building through the front door (top level) and make your way down to the cafeteria. Parking will be available near the front entrance and the left side of the school; or park in the street, but park on the school-side of the street. Parking is not permitted on the far side of the street.

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## **Dues Are Due!**

On the last page of this issue of the Spark Gaps is the registration form for NPARC membership. Please print out the form and send or give to Jim, WB2EDO, with your payment in order to be a member for this year.

....And please don't wait until the holiday luncheon; you may not find your name on the roster by then.

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## **Big Changes in Amateur Radio are Coming**

The Federal Communications Commission has announced that the Morse Code requirement for passing any of the three license levels, Technician, General, and Extra, will be removed in the near future. The ARRL has already noted that there was an immediate rush to purchase the license study manuals, presumably by all the Technicians out there who want to upgrade. It remains to be seen how the Amateur Radio fraternity changes with the new ruling. One result is.....(See next section)

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## **For Discussion at the second January meeting on the 22nd**

Our Club will most likely run a license course in the near future. Whether we run an entry level course or an upgrade course has to be determined. We need member input on this one as well as some potential volunteers.

There has been talk of a club DXpedition and that should make for some debate. I don't think the South Pole is seriously under consideration, but maybe a first trip to the Jersey shore or maybe Bermuda or the Carribean. Who knows? It may be crazy, but it's at least worth talking about.

Our annual Equipment Exchange i.e. Auction is in the planning stages and volunteers for that event are needed.

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## **NPARC Annual Equipment Exchange (i.e. Auction) - 23 February 2007**

Our club auction is set for Friday the 23rd of February, 2007, in the Lincoln Gym located in the New Providence municipal building (the police station) on the corner of Elkwood Ave. and Academy St., one block from the center of New Providence. This location is different from last year's location, but where this event has been held in years past.

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## From the last club meeting of 2006:

"South Pole" Bob Melville told us about his year-plus trip to the Antarctic which concluded in November. Below is a picture of Bob pointing to the GPS antenna set up right on top of the geographic South pole. From there, all directions are north...to warmer weather.



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## Climatological Data for New Providence for December 2006

The following information is provided by WB2QOQ, who has been recording daily weather events at his station for the past 25 years.

Maximum temperature for this December, 68 deg. F (December 1)  
Last December(2005) maximum was 51 deg. F.

Minimum temperature for this December, 16 deg. F (December 8)  
Last December(2005) minimum was 6 deg. F.

Average temperature this December, 40.1 deg. F

Average temperature last December, 29.8 deg. F

Total precipitation this December – 2.27" rain

Total precipitation last December – 3.79" rain/melted snow; 10.25" snow

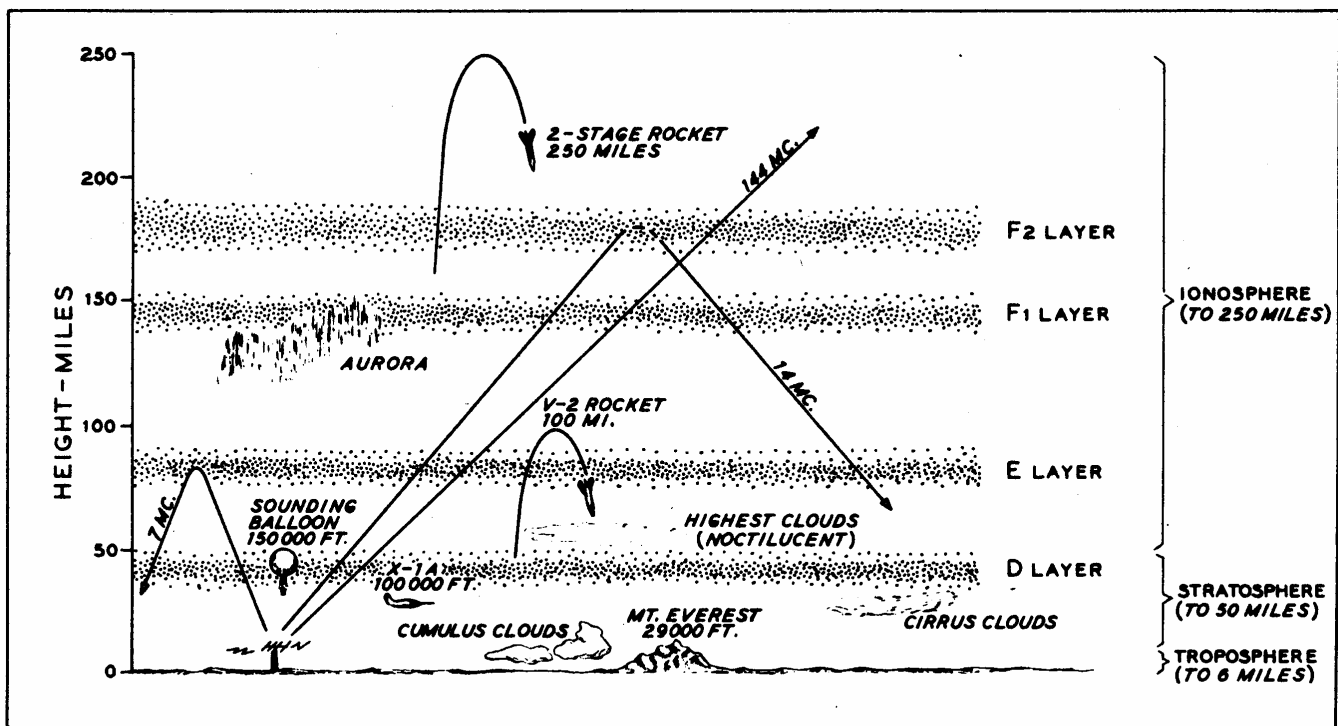
Greatest precipitation day this December - December 22 = 0.7" rain

Measurable rain recorded on 5 days this December.

No snow fell this December, in New Providence.

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Rick, WB2QOQ

The following image from "Better Short Wave Reception", Copyright MCMLVII, by William I. Orr, W6SAI, has been reprinted here absolutely without permission.



**Fig. 2** The earth's atmosphere is composed of three layers, the lowest of which is the troposphere, or weather layer. The stratosphere (constant temperature zone) is next, extending to a height of about 40 miles. Above this is the ionosphere (ion layer) which is the region of reflection of radio signals.

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**Following is the text from the NPARC Kid's Day Flyer** - see the full flyer on the NPARC website. Please consider printing out a flyer or two and posting (legally, please) in a public place:

Berkeley Heights and New Providence Recreation Commissions

in cooperation with NPARC  
The Amateur Radio Club for the Watchung Hills Area

Present "Ham Radio KID'S DAY"

A chance for kids of all ages to operate a Ham Radio station and speak with other kids from all over the USA and Canada

This event takes place on January 07, 2007 at the Berkeley Heights Community Center, 29 Park Avenue next to the Town Hall, between 1:00 PM and 6:00 PM

No experience required. Just show up at any time in the afternoon

Licensed Radio Amateurs from NPARC will set up the station starting at noon and will be available to answer any questions which you or your parents may have.

For information call:

Al Hanzl, K2AL, 908-872-5021 (evenings)  
Barry Cohen, K2JV, 908-464-1730 (anytime)

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**See Membership Form on Next Page**

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**Membership Registration**  
**NPARC - The Watchung Mountain Area Amateur Radio Club**  
**P.O. Box 813, New Providence, N.J. 07974-0813**  
**For the Calendar Year 2007**

Full Name \_\_\_\_\_

Spouse Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zip \_\_\_\_\_

E-Mail Address \_\_\_\_\_

Home Telephone ( \_\_\_\_\_ ) \_\_\_\_\_

Office Telephone ( \_\_\_\_\_ ) \_\_\_\_\_

Call \_\_\_\_\_ Class \_\_\_\_\_

Expiration Date \_\_\_\_\_

Birthday (Month and Day are sufficient) \_\_\_\_\_

ARRL Member \_\_\_\_\_ Life Member \_\_\_\_\_

Can you operate 145.75 MHz FM \_\_\_\_\_ Mobile \_\_\_\_\_

HT \_\_\_\_\_

Can you operate on 440 MHz FM \_\_\_\_\_ Mobile \_\_\_\_\_

HT \_\_\_\_\_

Can you give a technical presentation at a Club Meeting?

Subject \_\_\_\_\_

Professional Talents \_\_\_\_\_

**Please return this entire form.**

Dues are \$20.00 per year for Members, \$10.00 per year for Students.

Dues may be paid by cash or personal check made to NPARC and sent to:

**James M. Brown**

**56 Springbrook Road**

**Morristown, N.J. 07960**