

MOUNTAIN SPARK GAPS

**NPARC—The Radio Club for the
Watchung Mountain Area**



**Website: <http://www.nparc.org>
Club Calls: N2XJ, W2FMI**

VOLUME 50 NO.3 March 2015

UPCOMING EVENTS

Regular Meetings

4/13 & 4/27
Monday 7:30
NP Community Center

Meeting Schedule

Regular Meeting: 7:30—9:00 PM
2nd Monday of each month at the
NP Senior & Adult Center
15 East Forth Street
New Providence

Informal Project Meeting: 7:30—9:00
PM

4th Monday of each month
Same location

Everyone is Welcome

If a normal meeting night is a holiday,
we usually meet the following night.
Call one of the contacts below
or check the web site

Club Officers for 2015

President: KC2WUF David Bean
973-747-6116

Vice President: K2UI Jim Stekas
973-377-4180

Secretary: KD2EKN Tim Farrell
908-244-6202

Treasurer: K2YG Dave Barr
908-277-4283

Activities: W2PTP Paul Wolfmeyer
201-404-6914

—On the Air Activities

Club Operating Frequency
145.750 MHz FM Simplex

Sunday Night Phone Net
Murray Hill Repeater (W2LI) at 9:00 PM
Transmit on 147.855 MHz
With PL tone of 141.3 Hz
Receive on 147.255 MHz
Net Control K2AL

Digital Net
First & Third Mondays 9 PM
Details as announced.

Club Internet Address

Website: <http://www.nparc.org>
Webmaster K2MUN David Berkley
Reflector: nparc@mailman.qth.net
Contact K2UI, Jim

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WB2QOQ Rick Anderson
WB2EDO Jim Brown

Climatological Data for New Providence
for February 2015

The following information is provided by
Rick, WB2QOQ, who has been recording
daily weather events at his station for the
past 33 years.

TEMPERATURE -

Maximum temperature this February, 46 deg. F
(February 22)

Last February (2014) maximum was 56 deg.
F.

Average Maximum temperature this February,
31.6 deg. F

Minimum temperature for this February, -3
deg. F (February 20, 24)

Last February (2014) minimum was 4 deg. F.

Average Minimum temperature this February,
10.6 deg. F

Minimum diurnal temperature range, 8 deg.
(32-24 deg.) 2/9

Maximum diurnal temperature range, 31 deg.
(42-11 deg.) 2/12

Average temperature this February, 21.1 deg.
F

Average temperature last February, 28.7 deg.
F

Number of days this February with daily min-
imum temperatures of

20 deg. or lower - 24; last February - 19.

14 days this February saw temperatures in
the single digits; last Feb., 4 days.

3 days this February with minimum tempera-
tures below zero degs.; last Feb. 0 days.

PRECIPITATION -

Total precipitation this February - 10.5"
snow; 2.22" rain/melted snow.

Total precipitation last February - 30.5"
snow; 5.99" rain/melted snow.

Maximum one day precip. event this February;
February 21, 4.0" snow.

Measurable rain fell on 2 days this Febru-
ary, 5 days last February.

Measurable snow/sleet fell on 6 days this
February.

=====
Rick Anderson

3/10/15

243 Mountain Ave.

Q-Codes for the 21st Century
Jim Stekas - K2UI

The amateur radio Q-codes date back to the early 1900's when radio was in its infancy and spark was king. The first 12 Q-codes were published in 1912 and ran from QRA to QRK. Some retain their original meaning and remain in use today, e.g. QRM and QRN. Others have vanished completely, e.g. "QRC?", or "What is your true bearing?". In the century that followed, many more have been added: QRP, QSB, QSL, QSO, etc.

The ARRL Q-Code Review Committee has completed a six year study and plans to announce its updated list of Q-codes in a press release on April 1. The study results are based on the analysis of recorded 62,247 QSOs representing all the ARRL sections. All QSOs were recorded digitally in archival 24bit x 96kps format and translated into MS Word 2010 format using a Dell server array with 256 Xeon processors run Dragon speech recognition. The resulting Word documents were saved in XML format and analyzed by Ajay Rajapatnaram as his Ph.D. thesis project in Artificial Intelligence at Carnegie-Melon. The CM/AI graph analysis library (written in Scheme and Haskell) represented the QSO text as a large directed graph. All word expressions were given a score equal to the sum of the lengths of all Hamiltonian circuits that contain them. New Q-codes were assigned to expressions with the highest scores.

I am privileged to have been selected by the Committee to check the punctuation of the draft final report. As a result I am able to give NPARC members an exclusive sneak peak of the new Q-Codes. Here they are, together with usage examples.

New Q-Code	Examples
QBP?	"How is your blood pressure?"
QBP 150/90	"My blood pressure is 150/90"
QBS 160	"My blood sugar level is 160."
QCP?	"What is your Co-Pay?"
QED/V	"I have ED (and take Viagra)"
QEP	"I have an enlarged prostate."
QGC?	"How many grand children do you have?"
QGC 4	"I have 4 grand children."
QKR/L	"I had a knee replacement (left)."
QHR?	"Have you had a hip replacement?"
QHB/4	"I have had heart bypass (quadruple)."
QHC?	"Do you have high cholesterol?"
QHC/300	"I have high cholesterol (300)."
QPD?	"How many pills do you take each day?"
QPD/12	"I take 12 pills a day."

SCIENTIFIC TIDBITS

NASA's Carbon-Tracking Satellite

In an effort to learn more about the heat-trapping gas responsible for global warming, NASA has launched its first spacecraft dedicated to monitoring carbon dioxide levels in Earth's atmosphere. A rocket carrying the space agency's Orbiting Carbon Observatory-2 (OCO-2) satellite blasted into space this past July, five years after a near-identical craft crashed within minutes of takeoff. Once in orbit, OCO-2 will measure carbon dioxide levels 24 times a second, with an anticipated precision of 1 part per million. The goal of the \$465 million mission is to establish what exactly happens to the 100 million tons of carbon dioxide released into the atmosphere every day. Scientists know that half of it stays in the atmosphere while the other half is absorbed by oceans and plants. But while they have a handle on that process as it relates to the oceans, they do not know exactly how or where the absorption takes place on land. The OCO-2 mission will enable researchers to observe how carbon dioxide levels are affected by seasons, droughts, and floods, which should in turn reveal whether oceans and plants will continue absorbing the gas at the current rate. "Somewhere on Earth, on land, one quarter of all our carbon emissions released through fossil fuel emissions is disappearing," senior NASA scientist David Crisp says. "Wouldn't it be nice to know where?"

Why Dinosaurs Dominated the World

Scientists have long debated whether dinosaurs were warm-blooded, like birds and mammals, or cold-blooded, like reptiles and fish. But a new study indicates that the ancient creatures were in fact "mesotherms," possessing characteristics of both categories of animals. That dual nature may explain why dinosaurs were able to dominate the prehistoric world. Warm-blooded animals require lots of food, which serves as the fuel that allows them to regulate their internal body temperatures. All that energy also makes them faster and more active than their cold-blooded counterparts, whose body temperatures are affected by the surrounding environment. For the study, researchers compared the size, growth rate, and metabolism of more than 380 vertebrates, including 21 dinosaur species. Warm-blooded mammals generally metabolize their food about 10 times faster than cold-blooded reptiles. By studying the growth rings in fossils, scientists found that dinosaurs' metabolic rates fell squarely in the middle of that range. That would have enabled them to survive on less food than mammals while still maintaining their bulk. But with a faster metabolism than cold-blooded reptiles, dinosaurs were more agile, making them both dangerous predators and elusive prey. University of New Mexico ecologist John Grady says, "They took a middle way, kind of like Goldilocks, and it seemed to work out very well for them."

I wonder what a dinosaur's natural predator looks like. I should think it would be very scary!

Jim WB2EDO