



The LongPath

A North Alabama DX Club Publication

Special points of interest:

- The Year Ahead
- New Officers
- Short Skip
- Award Recipients
- ARRL 160m Contest
- 2005 DXCC Countries Worked
- New DX Challenges
- Low Band Long Path

How to Join

* Come to a club meeting;

* or send in an application by mail (form on www.NADXC.org)

* or call Jason Amos at (256)963-6833

The Year Ahead

By Tom Duncan, KG4CUY

The year ahead presents many challenges to ham radio. We may be tempted to sit back with a stack of old QSTs and CQs reading about "the good old days", comfortable to be the last of a dying breed. After all...

Who is out there to be enticed into ham radio? The position of the United States as the engine behind technological advancement must be seriously considered. Every time some indication of the value placed by the U.S. in technical competence hits the news, there is a dark side, no matter how upbeat the article tries to appear. Whether high school test scores or the percentage of engineers and scientists graduated from college, we are increasingly eclipsed by the rest of the world. We all remember the aura of mystery we could summon as kids who commanded some knowledge of the physical sciences. Does this cachet exist in the land of the free and the home of the brave for upcoming generations?

We - particularly HFers -- could be done

in by spectral pollution. BPL is always in ham news as the great specter waiting to render useless great random swathes of our allocations, but it is by no means our only problem. I have, for example, S-meter-pinning QRM I believe to be coming from a leaky cable TV line or connection, in the form of pulses beginning generally just below 7 MHz and repeating every 30 kHz or so up to at least where the clicks are audible on my antiquated 49 MHz cordless phones. These jiggle around quite a bit in frequency. Until I limit the search for the culprit source, the cable company is understandably reluctant to commit resources to finding it themselves. Since I operate primarily CW and a smidgen of PSK-31, these noises are more of a nuisance than a real problem to me, but let the SSB operator beware! If not these external sources of QRM, how about those we must blame on ourselves? Our own cable modems, wireless routers, indoor-outdoor thermometers, and who knows what else contribute just as much to our QRM, and I suspect we return the favor.

The Year Ahead, cont'd on p. 4

Using EZNEC for Antenna Design

Program by Hans Schantz-KC5VLD

Dr. Schantz presented our March, 2005 program on ultra wideband antennas. He returns this month to talk about Roy Lewallen's EZNEC, and provide some examples of EZNEC antenna models and modeling techniques. The business meeting begins at 7:00, the program at 7:30—be there for dinner around 6:15.



The LongPath Staff

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The mantle of authority has passed from our 2005 governing body. Hearty thanks go out to our 2005 crew for a job well done. Please welcome our 2006 officers and directors:

President—Tom Duncan, KG4CUY

Vice President—Bob DePierre, K8KI

Secretary/Treasurer—Jason Amos, KD4BJW

Director—Mike Maples, K4ADK

Director—Vic Holland, K4RVH

As his first official act, our incoming Secretary/Treasurer wishes to announce dues are payable. You may send these by mail to

Jason Amos KD4BJW
1323 Dan Ave.

Albertville, AL 35950

or give Jason your payment at the next meeting.

This Month in Electrical History

By the LongPath Staff

1903 — Guglielmo Marconi sends Morse code messages between his Poldhu, Cornwall and South Welling-ton, Massachusetts stations, on behalf of King Edward VII and President Teddy Roosevelt.

1914—Hector Macdonald publishes his observations on radio propagation in “The Transmission of Electric Waves Around the Earth’s Surface”, building on the works of Sommerfeld, Kennelly, Heaviside, Poincare, and others.

1924—Radio World Magazine solicits the help of Edwin Armstrong and the Department of Commerce under secretary Herbert Hoover to minimize interference caused by oscillat-

ing regenerative receiver detectors. Armstrong’s superheterodyne design, which did away with the regenerative detector, had first been licensed abroad that same month.

1954—Hugo Gernsback predicts the development of flat screen televisions — which he refers to as *Picture-on-the-Wall TV* — in the January issue of his “Radio Electronics” magazine.

1961—C. K. Patel develops the CO₂ laser at Bell Laboratories. This laser produced significantly higher output and at higher efficiency than others in this developing field.

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LongPath Ads

are available at New Year’s introductory prices. Want to buy, sell, or give stuff away? Contact Tom in the advertising department at

duncant1@ds-s.com or 705-2147 (w)

Ask for multi-issue discounts.

Another New Year Arrives

I hope everyone had a wonderful holiday. Maybe even Santa brought radio goodies to some households! As we enter 2006, let's hope that our lives will be blessed with good health and happiness, and that our world will enjoy more peace and stability than 2005 – that would be nice. As far as NADXC is concerned, let's support our newly installed officers and directors as much as possible. The continuing growth and success of our organization depend on that.

Propagation Outlook for 2006

It appears that the current solar cycle activity will continue to decline in 2006, hopefully bottoming out at the end of the year. Don't look for a whole lot of DX success on 10 and 12 meters, except for seasonal sporadic-E openings from time to time. Seventeen meters and 15 meters may be a bit more productive, with 17 meters generally providing more opportunities than fifteen. Twenty meters is expected to be the DX band of choice all year, as it typically tends to be around the years of minimum solar cycle activity. Favorable band conditions on 30 meters should exist during nighttime hours, and may provide some shots at pretty good DX. Nighttime propagation on 40 meters should also be very good throughout the year. Eighty and 160 meters should provide nighttime DX opportunities for the remainder of the winter months until the seasonal increase in at-

mospheric noise returns for the spring and summer. All in all, 2006 certainly isn't expected to be a barn-burner year as far as DX propagation is concerned, so we'll all have to play the hands we've been dealt and try to be more selectively efficient with our efforts.

3YØX Operations Are Nearly Here

If everything stays on its present schedule, the Peter I DXpedition team should be on the air in about a month. The latest update calls for arrival at the island on or around February 6, with the team set to remain at the island for 16 days. Just how many days of actual operating time will depend on weather and sea conditions that exist at the time. Regardless, we all look forward to working 3YØX on as many bands/modes as possible. The opportunity won't come around again for a long time! Monitor the DXpedition's website (www.peterone.com) for continuing updates.

Postal Rates Increase

Don't forget the increase in U.S. postal rates which will become ef-

fective on January 8. If you're including a SASE with your QSL card to a domestic QSL manager, be sure it has 39 cents of return postage on it instead of 37 cents. The cost of an I.R.C. will increase to \$1.85. Air mail to Mexico and Canada will increase from \$0.60 for one ounce to \$0.63 for one ounce, and air mail to all other countries will increase from \$0.80 for one ounce to \$0.84 for one ounce. See the USPS website (www.usps.com) for complete information on all new postal rates and fees.

HF Privileges for Entry Level Amateurs

In the "It Seems to Us" column in the January 2006 issue of QST, ARRL's Chief Executive Officer David Sumner (K1ZZ) offers some very thoughtful comments regarding the uniqueness of HF band operating and the need to provide HF operating privileges for "entry level" amateur licensees. It's well worth everyone's reading. If you don't have access to QST, it's on the League's website (www.arrl.org).

73 es gud dx . . . de W4UR

NADXC 2005 Award Recipients

By the LongPath Staff

The NADXC DXer of the Year award, and the David L. Reasoner award were presented at the December 13th Christmas party at the new Greenbrier restaurant.

The DXer of the Year award recipient is determined by votes cast at the November club meeting. The

2005 recipient is Tim Pearson, KU4J. Tim's DX accomplishments are amazing in themselves. Combine that with family, work, Scouts, and other commitments, and you have the picture of a truly dedicated performer.

Based on rationales known only

to the club president at the time, the David L. Reasoner award recipient is determined. The 2005 recipient is Vic Holland, K4RVH: who according to president Tom Duncan, KG4CUY, "frequently reminded me of things I didn't even know I'd forgotten."

Congratulations Tim and Vic.

The Year Ahead

(continued from p. 1)

Is everything gloom and doom? Let's look at the flip side (a term whose origin is likely unknown to those we hope will succeed us on the air).

Our numbers are declining, but not precipitously. Indeed, there is untapped potential in our numbers. Properly managed, increased privileges can be a lure to those not already extra class licensees. I know this was the case for me - I was convinced as a tech plus, and a general, and an advanced, that manufacturers were coerced by the FCC to include receiver coverage of all those frequencies where the good stuff was happening, but I couldn't operate. Couldn't the radio tell by my slow, sloppy keying that I had no business in the low 25 kHz? It let me hear all those DX QSOs anyway -

and fortunately, it still pays no attention to my slow, sloppy keying. Perhaps other hams can be yet enticed by the carrot of increased power and spectrum.

Are there no kids in today's United States with the requisite personality and scientific acumen to become hams? The proliferation of computer and robot clubs in high schools and, yes, grade schools tells us there are. While we must be concerned that a high-level appreciation for a technology does not prove understanding of the important underpinnings, how many of us as young hams clamored to build a spark gap transmitter before graduating to a 6L6? Whether we like it or not, we must be able to present ham radio in the context of today's technology.

Lastly, adversity comes unwelcomed, but is a great stimulus. It's amazing to consider those ancient days when hams were relegated to the useless wasteland of wavelengths shorter than 200 meters - those days when the entire civilized spectrum lay beneath one fourth the bandwidth of a TV channel. Now we have only a minor fraction of the spectrum above 200 meters, but I dare say we make better use of it. We are faced with encroachments on our spectrum, and while we must fight them, we would do well to devise escape plans as well. Out of such realities CW superseded spark, and SSB prevailed over AM.

A tough year is ahead, but we can handle it.

Customizing W6ELProp

by Tom Russell, N4KG

N4NO and N4KG presented a program in April, 2005 which gave a glimpse into using W6ELProp, a propagation forecasting program available at no charge.

K4WLS has written an informative article on understanding and optimizing W6ELProp to your station

specifics. See <http://mdxa.org/w6elprop.html>

A review of the release history can be found at <http://www.qsl.net/w6elprop/hist.html>

The latest release can be downloaded from

<http://www.qsl.net/w6elprop/>

The MAPS feature is especially useful, allowing one to visualize the terminator for ANY date and time, in either polar or rectangular map configurations.

ENJOY—N4KG

The ARRL 160 Meter Contest is a blend of the ARRL Sweepstakes and DX Contests. I tend to think of it as the 160M Sweepstakes with a little DX thrown in. DX stations are only allowed to contact USA and Canadian stations in this contest. Entrants are asked to observe the DX Window from 1830 to 1835 KHz.

This event takes place the first full weekend of December from 2200 GMT Friday to 1600 GMT Sunday for a total operating period of 42 hours. Personally, I think a 'one night stand' would suffice but two nights provides more access to DX and 'insurance' in case one night has poor propagation or high noise levels.

Two categories are permitted, either Single Operator (NO assistance) or Multi-Operator Single Transmitter which includes Single Operators who chose to use Packet Assistance. These categories are then separated by power levels, QRP ($\leq 5W$), Low Power ($\leq 150W$), High Power ($>150W$).

Score = QSO points X Multipliers. Contacts in the USA and Canada are 2 credited with 2 points each while DX contacts are credited with 5 points each. Multipliers include the 80 ARRL Sections (VE8, VY1, VY0 are counted as the same section) plus DXCC countries outside W/VE.

This year's event was characterized by fairly good conditions Friday night. Saturday night suffered from weaker signals and higher noise levels due to widespread thunderstorms. In a casual Low Power 10-hour effort, N4KG worked 330 sta-

tions in 74 sections including all 48 continental states plus 8 Countries, mostly by Search and Pounce style operating. KH6TM and NL7Z were heard for several hours each with poor to fair signals but the steady stream of high power stations calling precluded making contact for the last two states. Other missed sections were San Diego, San Francisco, and Orange, all in California, along with Manitoba (VE4), which were never heard. A few sections were worked only by CQing, namely West Mass., Louisiana, North Dakota, and VY0, none of which were heard CQing on their own.

DX stations worked included 6Y0A, CO8LY, PJ5NA, VP2E, P40TA, DJ3TF, F5IN, OK1RF, and ON4UN. All of the DX stations were worked using 100 Watts to a simple 140 ft Inverted L antenna supported by a rope over a tree limb (at 80 ft.) and fed against 50 radials 70 to 100 ft long. The western states were worked using a full size Elevated GP antenna consisting of 140 ft of Rohn 25 tower and 6 radials attached 15 ft above ground. I use two antennas because an intervening 130- foot tall tower with beam acts as a parasitic reflector creating patterns to the East and NW.

N4NO made 670 contacts including 12 DX contacts in CO, DL, F, KP4, LA, LZ, OK, OM, PJ and XE. He used no more than 1000 Watts to a shunt fed tower with 100 radials from 45 to 90 ft. long. Neither of us used any special receiving antennas during this contest. Many of the serious entrants made over 1400 contacts in 78 to 80 sections and

up to 53 DX Countries.

Propagation on 160 Meters can be very unpredictable, but it is surprising what can be worked under the right conditions on this band that sits just above the AM Broadcast Band. Only a few commercial antennas are available for this band, but home-made antennas can be constructed fairly easily. Examples include a simple inverted L wire antenna fed against a ground rod, an inverted Vee Dipole, shunt feeding an existing tower, or the N4KG Reverse Fed Elevated Ground Plane Antenna. KG4CUY made over 60 contacts from W1 to W7 in the Stew Perry 160M Distance Challenge using a simple inverted L fed against a ground rod [these were KG4CUY's first 160M contacts—ed.]. See any ARRL Handbook or ARRL Antenna Book for antenna details.

160 Meters offers an interesting 'Challenge'. TRY IT, You just may LIKE IT!

NADXC Officers

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2006 Southeastern Division Hamfest Calendar
 by ARRL Southeastern Division Director Frank Butler, W4RH

January 15
San Juan, PR (PRARL)

January 21
Fort Myers, FL

January 28
Arcadia, FL

January 28
Greenville, AL

February 4-5
Miami, FL

February 10-12
Orlando, FL

February 18
Sebring, FL

February 18
Brooksville, FL

February 25
Dalton, GA

March 11
Port Charlotte, FL

March 18
Marietta, GA (Kennehoochee)

March 18
Fort Walton Beach, FL

March 18
Stuart, FL

March 25
New Port Richey, FL

March 25
Jacksonville, FL

March 25
Plantation, FL

April 8
Pace, FL (Floridatown)

April 15
Defuniak Springs, FL

April 22-23
Mobile, AL

April 22-23
Gainesville, FL

April 22
Calhoun, GA

May 6-7
Birmingham, AL

May 6
St. Petersburg, FL (SPARC)

May 14
Moulton, AL

May 19-21
Dayton, OH

June 3
Atlanta, GA

June 3
Fort McCoy, FL

June 10
Fort Payne, AL

July 8
Gainesville, GA (Lanierland)

July 14-15
Milton, FL

August 12
Ellijay, GA

August 12
Fort Pierce, FL

August 19-20
Huntsville, AL

September 16
Dallas, GA

September 23
New Port Richey, FL

October 7
Jacksonville, FL

October 7
Plantation, FL

October 14-15
Melbourne, FL

October 14
Augusta, GA

October 14
Starke, FL

October 14
Rome, GA

November 4-5
Lawrenceville, GA

November 11
Montgomery, AL

November 25
Okeechobee, FL

December 2-3
Palmetto, FL (Tampa)

December 9
Ocala, FL

NOTE: Some of these dates are estimates, based on previous years' dates. Please send corrections to: w4rh@arrl.org

[Looking for something beyond a day trip? Try Hamfest (VU4) India, to be conducted at Port Blair, Andaman & Nicobar Islands, India on April 18-20, 2006 by the National Institute of Amateur Radio, Hyderabad, India. Foreigners will be allowed to operate! See www.niar.org for details.—ed.]

DX contests for January include:

EUCW 160m Contest, (CW), 160 meters

Jan 7, 2000Z to 2300Z, and
Jan 8, 0400Z to 0700Z

Exchange: RST, S.N., club
name, member # or "NM"

See page 101, Jan. QST

DARC 10 Meter Contest, (CW/SSB), 10 meters

Jan 9, 0900Z to 1059Z

Exchange: RS(T) plus Serial No.

See page 101, Jan QST

HA DX Contest, (CW), 160-10 meters

Jan 14, 1200Z to Jan 15,
1200Z

Exchange: RST + S.N. HA send
county or HADXC member #

See page 101, Jan QST

LZ Open Championship, (CW), 80 & 40 meters

Jan 21, 0400Z to 1200Z

Exchange: S.N. + last S.N. rcvd
(6 digits total)

See page 101, Jan QST

UK DX RTTY Contest (RTTY), 80-10 meters

Jan 21, 1200Z to Jan 22,
1200Z

Exchange: RST + S.N. UK stns.
send UK region code

See page 102, Jan QST

CQWW 160 Meter Contest, (CW), 160 meters

Jan 28, 0000Z to Jan 29,
2359Z

Exchange: RST plus State/

Province/DXCC entity

See page 102, Jan. QST

REF French Contest, (CW), 80-10 meters

Jan 28, 0600Z to Jan 29,
1800Z

Exchange: RST plus Serial No.
(F stns. give Dept/pfx)

See page 102, Jan. QST

UBA (Belgium) Contest (PHONE), 80-10 meters

Jan 28, 1300Z to Jan 29,
1300Z

Exchange: RS(T) plus Serial No.

See page 102, Jan. QST

OTHERS:

Original QRP Contest,

1500Z Jan 7 - 1500Z Jan 8

Hunting Lions in the Air CW/SSB,

0000Z, Jan 14 - 2400Z, Jan 15

NRAU-Baltic Contest, CW

0530Z-0730Z, Jan 15

NRAU-Baltic Contest, SSB

0800Z-1000Z, Jan 15

REF Contest,

CW 0600Z, Jan 28 to 1800Z,
Jan 29



Mr. DX Contests, N4NM

BARTG RTTY Sprint,

1200Z, Jan 28 - 1200Z, Jan
29

Mexico RTTY International Contest, RTTY,

1800Z, Feb 4 - 1759Z, Feb 5

CQ WW RTTY WPX Contest

0000Z, Feb 11 to 2400Z, Feb
12

RSGB 1st 1.8 MHz Contest,

CW 2100Z, Feb 12 to 0100Z, Feb
13

Dates & times often change or are
misprinted in the journals; beware.

Chuck, N4NM

2005 DXCC Countries Worked

By W1JR, Joe Reisert

(Reprinted from Daily DX vol. 10 no. 2, by permission of Bernie McClenny, W3UR, and Joe Reisert, W1JR.)

2005 was a challenging year for DXing. As expected, the lower sunspot numbers caused the upper HF bands to be poor. At the same time, numerous ionospheric disturbances adversely affected propagation on the lower HF bands.

For the last 20 years, each year I try to work every available DXCC entity on any band or mode and keep notes on those I missed. To make it more interesting, some years I add a twist like trying to work as many entities on special modes such as CW, Digital or QRP etc.

When evaluating DXCC activity, one must be particularly careful with trusting packet spots since numerous TEST messages, thanks for QSL, typos and wannabe DXers often post erroneous spots. It is difficult to work all active entities since one can't always be at the rig.

Furthermore, I avoid nets, schedules and as a rule don't stay up late or operate at odd hours during the nighttime. Also, some rare DX stations or DXpeditions aren't always available during optimal propagation times or operated for very short periods of time and only made a few QSOs.

In a typical year, I average about 280 entities worked. In 2001 I hit my personal maximum with 293 worked while missing about 6 enti-

ties.

Therefore, it looks like working 300 entities by one operator in a single year is possible but highly improbable.

For recent comparison, 2004 was a tough year for DXing netting me only

273 entities while missing about 12. However, the legitimate activation of VU4/A during December of 2004 after a long dry period (about 17 years) was enjoyed by many trying to work their last entity on the DXCC list.

2005 started out much slower than past years but I managed to work 272 entities after a late year up-tick of over 20 new ones beginning with better propagation between September and December. Over 250 entities were worked on CW so that mode has not gone away as some predicted. I managed (for reasons noted above) to miss about 12 entities that were believed to be active during 2005 (although some only made a hand full of contacts) viz.: 3X, CEOZ, EL, FO/C, J5, JD/O, T30, VK9/L, VP6, VU4A and ZL9. Hence there were only about 284 entities activated during 2005.

There was at least one big "surprise" activation during 2005, Desecheo Island by N3KS/KP5 and K3LP/KP5 (although a short operations...yet to be explained!). Other relatively rare activations and much needed entities in 2005 included (but are not limited to): DKOX

(Spratly), 3D2RR, 4W3ZZ, CYOAA, FT5WJ, FT5XO, H40HL, JXs, K7C (Kure) and VKOMT.

The following entities were not believed to have been active during 2005 and therefore are guides for those interested in activation a rare entity in the future:

AF (16): 3B6, 3C, 3C0, 3Y/B, 5A, 9U, 9X, D6, E3, FR/G, FR/J, FR/T, FT/Z, TN, VKOH and ZS8.

ANT (1): 3Y/P.

AS (7): 7O, BS7H, BV9P, E4, P5, VU7, XZ

EU (1): 1A0

NA (4): KP1, TI9, XF4 and YV0.

OC (16): 3D2C, FK/C, FO/A, FO/M, KH1, KH3, KH4, KH5K, T2, T31, T33, VK9M, VK9W, VP6/D, ZK1/N and ZL8.

SA (6): CEOX, HKOM, PYOT, VP8G, VP8O and VP8S.

2006 promises activation of some rare entities noted above. Let's hope the propagation gods and travel arrangements cooperate!

Hey, bucko . . . are you suffering from the sunspot slumps, are you down in the DX dumps, are you aching for some better band openings, do you need a little excitement in your radio-activity? If that's what's bugging you, maybe you're ready for some new and different DX challenges for 2006? With that in mind, last year (that's 2005 for those who have already forgotten) CQ Magazine announced three new DX-oriented programs intended to stimulate additional interest in DXing within the amateur community. These new "Waking Up DXing" activities were: (1) the **CQ DX Field Award**, (2) the **CQ DX Marathon**, and (3) the **CQ iDX Award**. One of the three is already in effect, and the other two started January 1 of this year. One or more of them might be just what the doctor ordered to introduce or restore a little spark in your operating habits, so let's review them in a little more detail.

The CQ DX Field Award

The basic CQ DX Field Award recognizes amateurs for having confirmed contacts with stations in at least 50 of the 324 areas on the globe represented by rectangles having dimensions of 10 degrees of latitude by 20 degrees of longitude. These areas (more commonly known as "Maidenhead Grid Fields") are part of a comprehensive system of identifying geographic locations that resulted from a meeting of VHF enthusiasts held in 1980 in Maidenhead, England. Each grid field is identified with a

two-capital-letter designation (AA to RR). Each grid field is further subdivided into 100 "grid squares," having dimensions of one degree of latitude by two degrees of longitude, and identified by two digits between 00 and 99. Every location on Earth can thus be identified by a specific Maidenhead Grid Square based on its latitude and longitude. (For example, my QTH is located in grid field EM and grid square EM65.) **NOTE:** Grid squares can be further subdivided into smaller "sub-squares" having dimensions of 2.5 minutes of latitude by 5 minutes of longitude, and identified by two lower-case letters between "aa" and "xx." However, due to their relatively small areas, sub-squares are not normally used for reference in VHF/UHF DXing.

The ARRL sponsors the VHF/UHF Century Club (VUCC) Award, which is obtained after having confirmed contacts on the VHF/UHF bands with stations in at least 100 Maidenhead grid squares. Those NADXC members active in VHF/UHF DXing may have already earned this award. By contrast, the CQ DX Field Award is a bit more difficult in that it is based on contacts within at least 50 of the 324 larger "fields," many of which represent areas that contain no land masses or are in the polar regions. Credit is allowed for any contact made on or after January 1, 1980. So, if you've already achieved the ARRL's basic DXCC Award there is a good chance you may have already come pretty close to earning the CQ DX Field Award. The basic award (with addi-

tional grid field endorsements) is already available and other separate special endorsements for band, power, and mode can also be obtained. For further information about this new award, including complete rules, see the April 2005 issue of CQ or the CQ website (www.cq-amateur-radio.com).

The CQ DX Marathon

Renewing an operating activity that was last conducted in 1948, the CQ DX Marathon runs from January 1 through December 31 of each calendar year, beginning January 1, 2006. The objective of this year-long activity is to contact amateurs in as many countries (DXCC entities) as possible and as many of the 40 CQ zones as possible. One point is given to each DXCC entity contacted and one point is given for each CQ zone contacted. Two entry classes are applicable based on power and type of antenna used. The total score at the end of each year is the sum of the points, and totals for different modes and bands are also measured. No multipliers are involved, nor are band-mode point combinations.

No QSL cards are required to be submitted, with participant log submissions relying primarily on operator ethics and honor. Certificates of participation will be available to those who have submitted a log for a calendar year, and awards will be given for those having the highest point scores in each zone, each country, and each operating cate-

Some New DX Challenges Available for 2006

(continued from p. 9)

gory. The competition starts over each January 1, and no carry-over of prior year points to a new year is permitted. It's an interesting concept that tends to provide a more level playing field for all DXers.

The CQ DX Marathon lends itself well to informal competition among members of clubs or other informal groups. Complete details were published in the May 2005 issue of CQ and are also available on the CQ website.

The CQ iDX Award

This award represents an "introductory" operating achievement oriented toward those amateurs new to HF band activity, such

as recently upgraded licensees having earned HF operating privileges but who have never been exposed to DXing. The initial award level represents a record of confirmed contacts with at least 25 DX countries (DXCC entities) using Voice over Internet Protocol (VoIP) linking systems (e.g., IRLP, EchoLink, WIRES, et al). However, at least one station involved in each contact must have been transmitting via radio within the amateur bands. Computer-to-computer EchoLink QSOs will not count for this award. Endorsements are available for 50, 75, and 100 confirmed countries. Contacts made on or after January 1, 2006, will count toward the award.

For purposes of the CQ iDX award, confirmation of contacts can be made through QSL cards, electronic/on-line confirmations from sources approved by CQ, and verifiable e-mails. See the June 2005 issue of CQ for more specific award information or check the CQ website.

To take on some new or additional DX challenges for 2006, why not consider one or more of these three new activities that might satisfy your own particular interest or situation, regardless of whether you're a DXing newbie or an old hand who has already "worked 'em all."

Christmas Party

Pictures by Jared Cassidy, KØ4VT

If you weren't able to attend to NADXC Christmas Party, here's some of what you missed.

Complaints regarding improper captions should be directed to the LongPath staff.



Vic Holland, K4RVH, receives the 2005 David L. Reasoner Award...



While incoming Secretary/Treasurer Jason Amos, KD4BJW looks on

Christmas Party
(continued)



KF4BOG, AG4W, and K4RVH



K4JD, K4XH, and K0BS planning a coup while K8KI listens in.



K8KI and XYL Merrie inform KG4CUY about the coup.



N5DF and XYL Birgit attempt to ignore the heated discussion involving K4ADK, K4SAV, and N4KG at the other end of the table.



KF4MMF and XYL Melanie; N4NM, and N4NO.

Unavailable

Meanwhile, KQ4VT takes the pictures.

GM3AWW is armed against the cold highland winters (springs, summers, and falls as well) with his trusty dog, his stick, and a bottle of a fine local single malt. Nattily attired, he heads to his hilltop QTH to work another rare one.

If you have a rare card such as this you would like to share, send it's image to the LongPath QSL desk, with any accompanying text.



" 'Tis the Season..." for Low Band Long Path
By Thomas Russell, N4KG

As we all know, the Winter Season brings colder temperatures and shorter days, or Longer Nights, from the perspective of the Low Band DX'er. These effects can all be traced to the fact that the earth's rotational axis is inclined 23.5 degrees from vertical relative to the earth's orbital plane.

Low Frequency propagation to Europe and Asia is enabled by the darkness over the North Polar Region. Daylight 'tolerance' for Radio Propagation is directly related to Frequency. At 1.8 MHz, DX propagation typically extends about 30 minutes into the daylight region at both sunrise and sunset. At 3.5 MHz the useful limit is for about an hour to an hour and a half of daylight. At 7 MHz, the useful limit is well over an hour and sometimes up to 3 hours of daylight.

Propagation along the Terminator or Gray Line or "Twilight Zone" is of particular interest. In December and January, the Twilight Zone provides a veritable "Waveguide" for

HF Radio Propagation that connects the Eastern USA with Eastern Asia at our sunset and their sunrise. Similarly, at our sunrise, the terminator connects the Eastern USA with Western Asia and Northern Europe at their sunset.

While these openings are generally considered to be Gray Line Long Path (SSE at Sunset and SSW at sunrise), the actual paths may be somewhat skewed from true Long Path (which may or may not traverse illuminated regions) and instead follow the terminator to the opposite side of the world.

Recent examples of Low Band Long Path openings as worked or heard by N4KG between December 25 and January 5 range from 30 meters down to 80 meters including the following:

- VK6BN on 10.104 MHz at 2239Z* *(true LP but not along the terminator)
- VR2BG on 10.104 MHz at 2304Z

- 9M2AX on 10.106 MHz at 2327Z
- DU1ZV on 7.003 MHz at 2225Z
- JM7OLW on 7.003 MHz at 2226Z
- 9N7JO on 7.007 MHz at 1246Z
- 9N7JO on 3504 at 1240 to 1300Z** ** (heard only)
- 9V1YC on 3.508 at 2242 to 2300Z

The Terminator (for any Date and Time) can be visualized in either Rectangular or Polar Map projections using the MAP Feature of W6EL Prop which can be downloaded FREE from <http://www.qsl.net/w6elprop/> Low Band Gray Line Propagation may occur any time of the year, but is most commonly observed from October through March.

The "Twilight Zone" can be visualized in Real Time, along with MUF contours, on <http://dx.qsl.net/propagation/index.html> by scrolling down to the Real Time MUF Map.