



JANUARY 2007

## Meeting January 4<sup>th</sup> at the 911 center

### THE PREZ SEZ

by Bill, N2DH

2007

Here we are another year with great things to look forward to!

Yes it is 2007 and we had a good year in 2006.

Lots of events and accomplishments.

The 2007-year also has lots for us to do.

All of the MS events will need chairs, the possibility of a fiftieth year dinner, a Hamfest and much more.

I hope that many of our members will step up and get involved.

The Christmas party was a great success, and all had a good time.

Thanks to those who brought goodies, and thanks for bringing along the ladies.

Our program chair would like to get ideas from the members regarding programs, what would you like to see and, could you present a program.

I think that now that W3CE is improving we will have an interesting program for January.

Christmas City, WX3MAS was a real success and we look forward to a report from the chairs.

If you were able to operate thanks, if not get involved next year if you can

The ARRL DX contest is just around the corner, if you are a DXer think about diving in, get with someone who operates contests, find out how much fun a contest can be, and add to your DX total.

See you at the meeting

*73, de Bill, N2DH*

## **DLARC General Meeting Minutes – December 7, 2006**

*By George, N3SQD*

Call to order by Bill N2DH.

Motion to accept November Meeting Minutes as printed – 1<sup>st</sup> Marvin KA3TEO, 2<sup>nd</sup> Bruce KA3TIU, Passed.

Treasurer's Report: November ending balance \$4486.32. No change to report as presented. 1<sup>st</sup> John WX3C, 2<sup>nd</sup> Bob N3OYA, Passed.

Repeater – Dick KA3MOU spoke with Barry N3NVA – nothing new to report. Carl AA3IX mentioned that he is still hearing spurious noise on repeater.

VE Session – George N3SQD reported that a VE session will be held on Jan. 5, 2007, as scheduled and that there were a number of registrants.

Club Station – Ken N3IYX and George N3SQD reported that the Cushcraft vertical has been installed in preparation for the Christmas City Special Event Station.

Tech Net Status – Charlie W3DEA reported that the Tech Net would resume on the Wednesday night before the club meeting (Jan 3, 2007).

Bill N2DH announced that the club is looking for chairpersons for the upcoming walks and other events. Bryan AA3WMM will be chairing the MS150 event.

### **Old Business**

Classes – George N3SQD reported that the Fall General (and Tech) class has concluded and that the Spring Tech classes will start on Tuesday March 13, 2007.

WX3MAS Christmas City Special Event – George N3SQD reported that it will be held as scheduled Saturday and Sunday (Dec. 9 & 10) at the Milk House. Signup sheet was sent around. Operators and guests were requested.

Newsletter – Brad W3JXQ will continue as the editor.

Printer purchase – no decision has been made (yet).

### New Business

It was announced that Al W3CE was under the weather and suggested sending a get-well message.

Al WO4H visited Van K3CP (our last remaining original club member) in south Texas. Van sends along his best wishes to the club.

It was mentioned that the board was discussing methods of distributing the club roster, now that the club newsletter is being distributed electronically. Charlie W3DEA encouraged membership in the “forum”. Signups for the “forum” email list should be directed to Don KA3JWE.

Bill N2DH raised the issue of getting a DSL line into the club station.

Bob W2AYA mentioned that he has some equipment from the estate of KB3GBW.

There was a discussion of having a dinner to celebrate the 50<sup>th</sup> anniversary of the Clubs incorporation next year (2007).

It was announced that nominations are needed for the Amy Zimmerman Award by next month.

Pete NL7XM reported that there was a significant proton event on the sun, which might impact communications for the weekend. We may see an improvement on 6M. Perhaps this is the beginning of cycle 24.

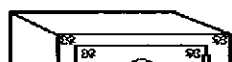
The meeting program will be the Christmas party.

Motion to adjourn – 1<sup>st</sup> Marvin KA3TEO, 2<sup>nd</sup> Don KC3II.

*de George, N3SQD*

## Treasurer's Report

*by Dick, KA3MOU*



Delaware-Lehigh

**Amateur Radio Club, Inc. Income & Loss Statement.**

Here is my report for the month of October 2006.

**Balance 10/31/06 \$4,335.39**

**INCOME**

Club Dues \$165.00

Donation Income 50-50 22.00

Interest Checking 10/13 1.10

Interest Checking 11/15 1.32

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**TOTAL INCOME \$189.42**

**EXPENSES**

Club Station Renewal WX3MAS 20.80

Telephone 17.69

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**TOTAL EXPENSES \$38.49**

**Balance 11/30/06 \$4,486.32**

*73, de Dick Dech, Treasurer of DLARC*

## **DUES ARE DUE**

*by Dick, KA3MOU*

It is that time of the year! Dues are due for 2007. Read below and you will see how to pay your dues. Please when paying dues by mail included your call sign either on your check or the envelope.

If your DUES are not paid by FEBRUARY 1, 2007 membership will be terminated. Reinstatement to membership by the MARCH meeting will be accepted without penalty. Thereafter, reinstatement application shall be the same as for a new member.

### **Dues Reminder for 2007**

Dues are due. Check your membership card. If the card has EXP. 12/31/06 your dues are PAST DUE.

Dues are as follows:

Membership 18-65 years of age

Jan. - Dec. \$17.00  
July - Dec. \$8.50

Under 17 years, 65 or over or Retired (no age limit).

Jan. - Dec. \$12.00  
July - Dec. \$6.00

Additional family member, each \$3.00

Associate Membership \$10.00

If paying your dues at a meeting, use an envelope with your call on the outside of the envelope. If paying dues by check, make the check out to DLARC.

If you mail your dues, mail the dues to:

RICHARD A DECH / KA3MOU  
120 MCILHANEY AVENUE  
BATH PA 18014-1612

If you have any questions about dues, you can call Dick / KA3MOU at 610-837-1585.

*73, de Dick, KA3MOU, Treasurer of DLARC*

## Alternator Whine

*Submitted by Blair, K3YD. Reprinted with permission.*

[Alan Applegate \(K0BG\)](#) on November 8, 2006  
[View comments about this article!](#)

### Alternator Whine

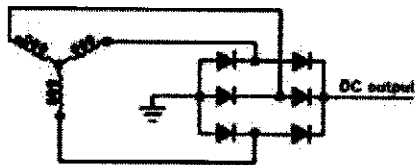
I want to revisit this problem, because there seems to be a lot of poor advice floating around on these pages. Let's start out with a few basic facts, but keep in mind this is NOT an alternator primer. If you need or want more data, the internet is your best friend.

The average alternator's output is between 13.9 and 14.2 VDC. It might be less if there is a problem with the alternator. In some cases it may be a little higher, but voltages over 14.6 VDC should be considered abnormal.

Continuous output and peak current ratings vary quite a bit. The requisite amperage ratings selected by OEMs are largely based on content. That is to say, how many features like rear window defrosters, premium sound systems, electric windows, and heated seats any given vehicle is equipped with. Heavy duty and high-end vehicles usually have larger ones as do those with extra-cost trailer towing packages.

Nowadays, the smallest OEM ones are rated about 90 amps peak, and the larger OEM ones about 150 amps peak. There are a few exceptions, but the highest rated OEM units are about 225 amps peak. The reason I use the term *peak* is this; very few OEM alternators will deliver their rated output continuously, and contrary to popular belief,

there isn't any standard rule for peak versus average.

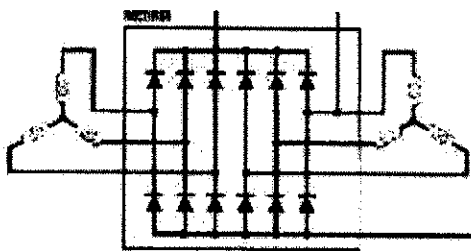


Almost all alternator stators (the non-rotating part) are wired in a wye configuration (as shown), and the rest are wired in a delta configuration (primarily Ford products). Rotating within the stator is the field. The field current and/or voltage is varied by the regulator so the output voltage is constant, regardless of the

load, up to their peak amperage rating. There are several different regulation strategies employed. Some simply use a pass transistor, others use pulse width modulation, and some almost defy definition.

Depending on the engine type (diesel or gas), alternators are driven from two to five times engine speed, up to a maximum of about 16,000 rpm. As a general rule, the output frequency of an OEM alternator is equal to the engine rpm. That is to say, 1,000 rpm equals 1KHz. Their efficiency is about 90%. Thus, an alternator rated at 130 amps, with an output of 14 vdc, will have an input of around 2 KW, and will require about 3 HP to drive.

In a never-ending quest to reduce weight, and improve efficiency, most new-generation OEM alternators are double wound, and use twelve diodes instead of six. This not only reduces size and weight, the lower mass of the rotating field allows the alternator to be driven faster, which improves low rpm power output. It also doubles the ripple frequency.



As long as the diodes are doing their job, the output ripple is nearly nonexistent, as the battery is acting like a very large capacitor. When they don't do their job, the result is what we commonly call alternator whine. To be sure, there are other causes which will be discussed later.

While alternator whine can be a bane for us amateurs, as long as the alternator delivers its rated output, dealers don't care, and typically will not replace noisy ones under warranty. So this leads those who are plagued to seek other avenues of relief. For example, using RG8 as a power cord, or twisting the factory power cords of their transceivers. Doing so is junk science. Let's visit this in more depth.

First, any technique we use to shunt alternator whine to ground must present a low impedance at the frequency we're trying to suppress (less than 8 kilohertz typically). Further, it must be of lower impedance than the circuit it is attached to. In the case of vehicle DC wiring, that's seldom higher than a few tenths of an ohm.

An average power cord is ten foot long. A ten foot piece of RG8 has 250 pF of capacitance. At 8 kHz, 250 pF has a reactance of about 1,500 ohms. In terms of suppression, this amount is insignificant.

Twisted or not, a 10 foot power cord made from two number 10 conductors will have about 2 pF of capacitance per foot. Ten feet of it is an insignificant reactance even at 80 kHz! What's more, those who support twisting the power cord as a fix for alternator whine, and a host of other maladies, ignore some basic facts. Twisting works to reduce noise pickup only if both inputs and outputs are balanced, and neither end is grounded. That's not the case here.

Brute force filters offer some help, but there is a big downside too, and that's voltage drop. Radio Shack used to sell one that was rated at 20 amps. Inside its tubular construction is 20 feet of what appears to be number 16 Thermalese wire wound around a laminated steel core about 3/8 of an inch square, and and 2 inches long. A 1 uF coaxial capacitor completes the package. The input and output are size 10. The voltage drop at 20 amps is almost 2 volts. At 8 kHz, the suppression is less than 2 dB.

In some cases, a 1 Farad cap, like those used in mobile sound systems will suppress alternator whine if they're placed near the radio end of the power cord. However, they have a lot of drawbacks, not the least of which is their propensity to explode if dead shorted.

The best place to cure alternator whine is at the source. If you think it is a leaky diode causing your problem, use an O scope to look at the alternator output directly at the output terminal. If it is a diode, you'll easily see it. The fix is obvious.

As alluded to above, there are another situations which can cause what ripple there is to invade the circuitry of your transceiver. One of those is a ground loop. Ground loops occur when there is a differential in current flow between the positive and negative power leads feeding the radio. This is typically caused by incorrect wiring techniques. Poor bonding of body on frame vehicles, and poor coax connections can also cause the problem.

Another problem altogether, which is often incorrectly identified as alternator whine, is the switching transients from the alternator's regulator. While diode induced whine directly varies with engine speed, regulator whine normally does not. It will appear louder at low rpms, and when there is a high amperage load. Since it is radiated RF energy, removing the antenna will cause it to go away. The only fix is to replace the regulator.

Distractors will surely point out that they fixed their alternator whine with one of the aforementioned anecdotal remedies. If that is indeed the case, then the original wiring was amiss.

*Alan, KØBG*  
*www.kobg.com*

## **Van / K3CP Update**

*by Dick, KA3MOU*

Al, WO4H returned home from a trip to Houston TX where he visited his son for Thanksgiving. Al asked me to give this report on his visit.

During his visit he had lunch with Van Horn, K3CP, on Wednesday, November 22nd. Bill lives about 5 miles from Al's son. Van lives in a development which does not permit antenna's. He looks good and feels good for a person who is 85. Van loves the area but misses his friends and members of the DLARC. He specifically asked me (Al) to say Hello to all. For those of you who do not know Van, K3CP, he is the only living member who founded DLARC.

Happy Holiday's!  
*73, de Dick, KA3MOU*

## **Net Controllers Needed**

*by Dick, KA3MOU*

Greetings Members!

I am looking for Wednesday night net controllers. The net's start at 7:00 pm. It usually takes 15 to 20 minutes to do a net. In a three month time frame you would only have to do the net once. If interested in being a net controller contact Dick Dech at, ka3mou@arrl.net

Happy Holidays!  
73, Dick, KA3MOU

# December Pictures

by Dick, KA3MOU

Click on thumbnails to view full size pictures  
Click 'back' in your browser to return



some of the club members attending the club meeting



another group of club members attending the club meeting



our newsletter editor Brad Snyder, Ken, N3IYX and the couple to the right of Ken were in the classes



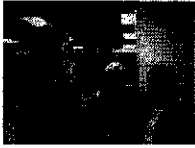
from left to right is Victor, Pete and John



another group of club members enjoy the get together



Our Club Pres. Bill and his wife, Beverly, Bill, NC3P wife



from left to right is our club Pres. wife, Beverly and Bill, NC3P





# Morse Code: a Fading Signal

by Bill, K3ANS

Here is a plain text version of the New York Times article about the demise of Morse Code in ham radio. I converted it from the rich text of the newspaper. I recommend that it be included in W3OK Corral. I prefer Morse Code over voice communication on high frequency bands.

de Bill, K3ANS

[Click here to go to the NY Times article.](#)

Morse Code: A Fading Signal - New York Times

December 27, 2006

Morse Code: A Fading Signal

By MIGUEL HELFT

It may be the ultimate S O S — Morse Code is in distress.

The language of dots and dashes has been the lingua franca of amateur radio, a vibrant community of technology buffs and hobbyists who have provided a communications lifeline in emergencies and disasters.

But that community has been shaken by news that the government will no longer require Morse Code proficiency as a condition for an amateur license. It was deemed dispensable in part because other modes of communicating over ham radio, like voice, teletype and even video, have grown in popularity.

While the decision had been expected, some ham radio operators fear that their exclusive club has been opened to the unwashed masses — and that the very survival of Morse Code is in question.

It's part of the dumbing down of America," said Nancy Kott, editor of World Radio magazine and a field representative for the Centers for Disease Control and Prevention in Metamora, Mich. "We live in a society today that wants something for nothing."

A woman in a mostly male world, Ms. Kott is one of about 660,000 licensed ham operators in the United States and is the American leader of Fists CW Club, an organization that calls itself the International Morse Preservation Society. (An "open fist" was the hand position typically used by telegraph operators when sending Morse, which is sometimes called Continuous Wave or CW. And in ham radio slang, someone who sends fine code is said to have a good fist.)

Within 48 hours after the Federal Communication Commission's move this month to drop the Morse requirement, a discussion on [www.eham.net](http://www.eham.net) ran more than 380 messages and 57,000 words long, the equivalent of a short novel. The postings were divided roughly evenly between those lamenting and praising the Commission's decision.

"CW is just another mode and should not be afforded any special priority over others," wrote K4UUG, who like many radio aficionados identified himself online using his radio call sign. "Proficiency should not be required for those who do not wish to use the mode."

As part of its decision to eliminate the Morse requirement, the Commission made essentially the same point.

Inside a hilltop trailer above Stanford University in Palo Alto, Calif., a couple of veteran coders seemed to be taking the Commission's decision in stride earlier this week. In a room cluttered with electronic equipment, they translated the dits and dahs that beeped in the background at dizzying speed, the chatter between someone in Canada, VE6NL to be precise, and someone off the coast of Antarctica, VP8CMH.

"It's a bit like a foreign language," said W6LD, whose real name is John Fore, a securities lawyer at Wilson Sonsini Goodrich & Rosati, a prominent Silicon Valley firm. "You learn it and it's fun to use it."

With thumb and forefinger barely touching the two metal ends of a Morse paddle, W6NL, a.k.a. David B. Leeson, unleashed his own stream of dits and dahs with the ease of a virtuoso, joining the global conversation. "I fell head over heels for amateur radio when I was 4 or 5 years old and heard Morse Code signals from afar at the station of a 14-year-old", said Mr. Leeson, 69, a consulting professor of engineering at Stanford. "I still remember the thrill".

The thrill turned into a hobby, and the hobby turned into a career in technology. In 1968, Mr. Leeson founded California Microwave, once a thriving telecommunications equipment company but now defunct. Now radio and Morse are just for fun, said Mr. Leeson, who is faculty adviser to the Stanford Amateur Radio Club, which once counted William R. Hewlett and David Packard as members.

Mr. Leeson and Mr. Fore are both active in radio contests, 48-hour competitions in which hams try to contact as many other hams as possible, often using Morse.

Mr. Leeson has a station in the Galapagos Islands, where he goes several times a year with his wife, Barbara (K6BL), for contests. They once contacted as many as 17,000 other hams in a weekend. Mr. Fore, who is 50, and got his first license when he was 10, has a station in Aruba.

They embody the kind of utility-free passion for Morse that the futurist Paul Saffo said would ensure its survival.

"Freed from all pretense of practical relevance in an age of digital communications, Morse will now become the object of loving passion by radioheads, much as another 'dead' language, Latin, is kept alive today by Latin-speaking enthusiasts around the world," Mr. Saffo, a fellow at the Institute for the Future, wrote in his blog.

Morse Code was first devised in the 1830s for use with the telegraph. It later became an essential part of civilian, maritime, and military radio communications.

But the military has largely abandoned its use in favor of newer technologies, and the Coast Guard stopped listening for Morse S O S signals at sea during the 1990s.

The F.C.C. first lifted the Morse Code requirement for entry-level licenses in 1991. It later dropped proficiency requirements for higher-level licenses to five words a minute, from 20. And after international regulations stopped mandating knowledge of it in 2003, it was only a matter of time until Morse Code was no longer required in the United States. The requirement will formally be phased out sometime next year.

The demise of the Morse requirement, however, could be a boon for ham radio itself. After the F.C.C.'s decision, the American Radio Relay League, an organization representing ham radio operators, said demand for information about radio licenses surged from about 200 in a typical weekend to about 500.

"We are very pleased to see that," said David Sumner (K1ZZ), the league's chief executive.

That is no consolation for the most avid defenders of Morse.

"There is something magical about being able to put two wires together and start going dit-dit-dit dit-dit," said Ms. Kott, or WZ8C. "We are just going to have to get on the air and do what we do and hope for the best."

## Quick Check Calendar

All Amateur Radio Operators are invited to Participate in the DLARC, RACES, and ARES nets:  
51.76, 146.70, and 444.90 W3OK/RPT (pl 151.4) with an alternate of W3PYF/RPT 145.11 (pl  
151.4)

W3OK trustee Chris Hornaman, NU3L  
The Nets are held on Wednesdays at 7:00 PM

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== 2006-2007 ==

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**CLUB MEETINGS**

All regular meetings of the D.L.A.R.C. are held on the first Thursday of each month  
 7:30 PM at the Northampton County 911 Center.  
 TALK IN ON 146.70

Any comments or articles contributed to this newsletter  
 should be addressed to w3jxq@snycomp.com or Brad Snyder, Editor  
 4260 Cedar Drive, Walnutport, PA 18088