

W9JOZ

Volume 3, Issue 8

August 2011

The President's Corner

HOT enough for you, it is for me. Well by now you all heard I got ZAPPED again and the insurance company isn't happy and ME NIETHER. It looks like my 116 ft yard ornament is the problem. Now it is affecting our neighbors, they loss stuff too. I will be looking for some professional help on this or I will be selling the tower (Really Really CHEAP). Janet and I are new grandparents thanks to our son Jon. Her name is Rose and that brings the total to 7 grandkids. Second week in August we should have the EMA available to work on. Watch your emails I will send you something when we can start and finish it. Also looks like we are going to have an AUCTION, get your stuff together. More details on the auction at the meeting. Everyone stay cool and hydrated during this HOT weather.

I will see you later at a Club EVENT.
73
Tony W9AL

INSIDE THIS ISSUE

- 1 President's comment / Meeting reminder
- 2 Vice President speaks
- 3- Upcoming Events/ Articles

Meeting August 18th

Time is 7:00 p.m.

Dues are due. Discussions on various topics.



Meetings are at the Henry F. Schricker Library on the third Thursday of each month, with the exception of December.

The library is located on west Culver Road, two blocks west of Highway 35.

From the Vice President's P.C.

Good morning to all or maybe afternoon when you get a chance to read the newsletter. I was having a problem with the clock in my ham shack not keeping the correct time and while I was doing research on the subject I came across this article and thought it was good reading. On the radio front, it looks like we need to make sure our grounding of equipment is up to code. Tony, W9AL got hit again and it came through the ground wire he had attached to his stuff. Well stay cool and hydrated. See you all at the next fox hunt or the club meeting. And don't forget the club picnic is coming up.

Later

Randy

Kc9isj

[Why the Clock Runs Off – Time Error Correction Elimination Field Trial 28 - June - 2011](#)

Posted by *k9zw* in [Amateur Radio](#), [K9ZW](#), [K9ZW Just Rambled](#). [trackback](#)

One of the options for electrical device timekeeping has been to count the frequency of the wall electrical power supply. In some cases this count provides a basis for a build-up to other frequency uses.

I know my Nixie Clock projects were mains power frequency counters as originally built and coded.

The North American Electric Reliability Corp. which is the group runs the electrical grid is proposing a 1 year trial relaxation of the frequency discipline.

The technical reasons seem to be a mix of Cost-Benefit Analysis, troubles keeping Wind Farms on frequency and an assumption that exact frequency just doesn't matter.

Overseas the use of time by electrical mains frequency counting varies, as many grids have never had the frequency discipline to be reference grade.

Even here much of what does mains frequency count is non-critical – that clock in your kitchen stove, the one in the charger base of your shaver, and basically tend to be the clocks that flash 12:00 after a power outage.

Here is the start of the NERC's briefing:

Time Error Correction Elimination Field Trial

NERC is investigating the possibility of eliminating Time Error Corrections. NERC, which is currently performing a field trial of the proposed Balancing Authority ACE Limits metric as a part of NERC Project 2007-18, has also been collecting data regarding Interconnection frequency performance, including the number of clock- minutes during which actual frequency dropped below the low Frequency Trigger Limit (FTL) of 59.95 Hertz. During the period of July 2005 through March 2010, approximately 44% of the minutes during which clock-minute actual frequency dropped below the low Frequency Trigger Limit occurred during Time Error Corrections when scheduled frequency was 59.98 Hertz (1,875 of the 4,234 total minutes observed below 59.95 Hertz). Upon further investigation, it was found that almost all of those

minutes (1,819 of the 1,875 total) represented frequency deviations that would likely not have dropped frequency below 59.95 Hertz if the scheduled frequency had been 60 Hertz. In other words, it was estimated that approximately 97% were of such a magnitude that if the Time Error Correction had not been in effect, the exceedance of the low FTL would not have occurred. via [TEC Elimination](#).

I'm not certain how many, if any other than homebrew, amateur radio products are mains frequency counters, and what else may have frequency counter issues.

I know professional equipment we use should be ok, though we'll check into it.

Also somewhat concerned that the annual less than 20 minutes time error Eastern Grid and less than 8 minutes time error Western Grid (Texas' separate Grid is expected to stay within 2 minutes a year) may be an annual cumulative calculation and we may experience slow-down/speed-up periods greater than this on the hour-by-hour basis.

Watch the media for more on this, and perhaps it is a good "time" for you too to add a frequency reference source to your shack?

73

**Steve
K9ZW**

Upcoming Events

Birthdays in August

5th Bob KC9ISI and Bryan KE9ML

8th Hugh W0OP

21ST Ken KC9MQD

EVENTS

14th Foxhunt

18th SCARC Meeting

28th Picnic - Bring something to share

Submitted by Tony, W9AL

Hints & Kinks: Altoids Times Two

Many of us mount compact circuits in cases that previously contained mint candies. My friend Matt, W0XEU, suggested packaging more complex circuits in multiple Altoids tins by mounting them back to back, a simple yet elegant idea.

I built this circuit in a "double-wide" arrangement because I needed somewhere to put the



The finished device, all closed up and ready for travel.

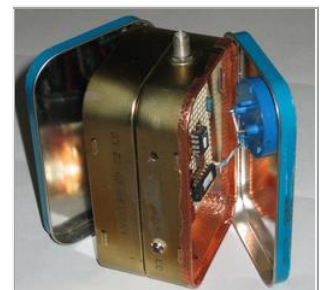


A view of both tins open. Notice the copper tape shielding on the right-hand tin.

batteries. This offered the added advantage of providing a means to filter bench power during development and testing so I wouldn't leak ambient RF signals into the main compartment with its very sensitive circuitry. I simply drill a hole near each corner to screw the boxes together. If you are careful with the placement of the holes you can even turn the arrangement around later to reverse the way the covers open. Otherwise, plan ahead. I feed power between compartments via a threaded coaxial feed-through [EMI](#) (electromagnetic interference) [filter](#), with additional bypass capacitors for this very sensitive application. The threaded filter

serves in place of one of the screws that hold the cases together. I use conductive adhesive-backed [copper tape](#) as a gasket to minimize leakage into the shielded compartment that contains the sensitive circuitry.

You can extend this method to additional compartments where you might want many stages of gain and you need to isolate and control the coupling between them. This is a very simple and effective way to prototype more complex circuits before you have to worry about customizing the packaging. Matt and I hope you will find this method useful. -- 73, Sam Green, W0PCE, 10951 Pem Road, St Louis, MO 63146, w0pce@arrrl.net



A look at the interior of the shielded side with the copper tape along the edge and inside to eliminate RF interference. All photos by Sam Green, W0PCE.

Pneumatic Antenna Launching Systems

Pneumatic Antenna Deployment Systems



My First Pneumatic Antenna Launcher - They are much smaller now, see below

Rich, K9CIV suggests this site for you to visit and see how easy it can be to make one of these. <http://www.antennalaunchers.com/antlaunching.html>

NTS Pen Pal Program
By
Ivin Flint, W9ILF

The purpose of the NTS Pen Pal Program is to gain new friends within amateur radio through the national traffic system. It will create a traffic flow back and forth between two stations. This traffic flow will become a consistent path through the NTS. It will very likely cross modes and forge a strong, reliable link between two points that may incidentally be beneficial in a time of emergency while two stations get to know each other through frequent correspondence.

To get this started I have created a yahoo group with a page to place interested operator's name, call letters, city, & state. To gain a new pen pal simply look through the list and choose an area of the United States you would like to correspond with someone. Write a radiogram message to the individual you choose, inviting them to be your NTS pen pal. Next, just bring your traffic to any traffic net of your choice.

If you receive a request, respond with an agreement or a response as to why you cannot be a pen pal with this station at the moment. You may get multiple pen pal requests so keep the number to a comfortable amount. If you feel you have enough pen pals indicate you are not currently available for more on the web site. When you have an opening due to more time or a loss of one pen pal then indicate your availability again on the pen pal web site.

Regular NTS participation with one or more traffic nets is encouraged as this will then ease delivery of your traffic. Daily check-in isn't required but multiple times weekly is good. Local NTS operators will get to know what traffic net/nets you are most active with and will route your messages there.

Please do not use e-mail to contact your pen pal. Chess was once a common use of the NTS.

Until next month,

73

John, W3ML