

# Drumlins Amateur Radio Club, Ltd.

January 2019

## Drumlins' Rumblings

Volume 9, Issue 1

THE PRESIDENTS CORNER

### *KD2DNO*

Our President is on a cruise in the Carribean  
so I present to you...Travels with KD2DNO

Panama Canal transit. It was wonderful. I loved all the islands and scenery, the locks are amazing and Panama City skyline is beautiful. Heading on the last half of the journey through Central America and Mexico.



## Leaving NYC...

We were about 30 miles off the Panamanian coast, eating lunch when this butterfly landed on my cheek. He seemed very tired, possibly trying to escape the birds surrounding the ship, so he sat on my cheek for about 30 minutes, resting up and finally took off. Everyone was getting a big kick out of him taking a break on me.  
Pretty cool.

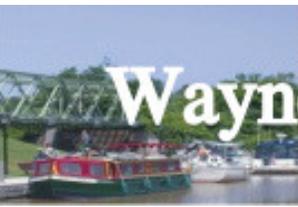


Volcano near Corinto, Nicaragua today. It's an active volcano, smoke coming out but hard to see with the course. Watching the Saints and hoping for a better second half. Geaux Saints



3rd day at Sea in the mid 70's.. Folks using the pools. Having a great time. We are straight West of Miami.





## RACES-ARES JANUARY 2019

As my bitmoji says, Happy New year! Can you tell I love the bitmoji my granddaughter made for me? Hi, you bet. I sure do. The XYL and I lasted long enough to see the ball fall in Time Square and two minutes later we were heading for those ZZZZZZs. Hi.

2019 means it is time for the WARECS Sunday net stats for 2018. Luckily I did find my calendar with all my info. Remember, I mentioned it was buried in the shack somewhere in last month's article. I happened to find the calendar after finally getting my new Rx post-cataract surgery glasses Christmas Eve day! What a great Christmas present!, after all that time since the first eye was done November 19th. "I can see!," is not a joke here. With my "new eyes" in focus bingo, there the calendar popped out in view. I've got to computerize my stats! That is my goal this year to get them on a thumb drive. I can be so old fashioned. It took me awhile to get my field of depth adjusted in my "noodles" going from extreme nearsightedness to extreme farsightedness, believe me. And, I still need the glasses for driving legally. I couldn't quite make out the letters for the vision test at the DMV. "Four eyes" I still am on my license. Hi. But the XYL is relieved she can once again enjoy riding than driving and I do a better job than the XYL missing potholes. Hi.(Sorry, Hon. It's one of the XYL's "perfect imperfections" as the song goes. Me? I am her "enigma." Hi.)

So here are the 2018 stats and for the years 2017 and before to compare:

2014: 44 nets, 1119 total checkins-average 26.0.

2015: 42 nets, 1158 total checkins-average 27.6. (739 voice checkins-average 17.6/net; 557 digital

MT63/2K rogers-average 13.3/net and 411 packet rogers-average of 9.9/net.)

2016: 41 nets, 1108 total checkins-average 27.0. ( 681 voice checkins-average 16.6 /net; 519 digital

MT63/2K rogers-average 12.7/net; 427 packet rogers-average 10.4/net. )

2017: 42 nets, 1067 total checkins-average 25.4. (632 voice checkins-average 15.05/net; 459 digital

MT63/2K rogers-average 10.9/net; 442 packet rogers-average 10.5/net)

2018!: 43 nets, 1043 total checkins-average 24.3 (616 voice checkins-average 14.3/net; 446 digital MT63/2K rogers-average 10.4/net; 427 packet rogers-average 9.9/net ).

What this all means is “ops” spent 17.2 days on the WARECS nets in 2018. (2017, “ops” spent 18.2 days on the Sunday night nets.) ARES took 14.7 days added time out of your schedules but not as busy as 2018 with 23.96 days. I was busier with family and missed more communications events. You can only do what you can do with your time and that is okay. We do the best we can. May, June, August, September and October are the busy months for RACES-ARES. So enjoy your winter break! Hi. The break is well deserved.

Please, remember, any time you spend with exercise, training, nets, communications work projects benefiting our RACES EMO mission or helping the public as ARES ops, counts towards my monthly EC Section Manager (SM), report! But you have to help me by telling me. I don't catch what going on all by myself.

As you can read, the 2018 stats are down a wee bit from 2017. The WA2EMO-14 packet problems for nine weeks caused a little drop in the stats. But the slight difference was helped by the DARC Tuesday 7:00PM nets started up this past year. Those Tuesday night nets add up too. All this does show the consistency and how faithful all you ops are! I appreciate your faithfulness! ***“FB” and kudos to you all.***

The DARC Net Tuesday at 7:00PM on the 745 repeater was a good thing to start up. Thanks, Bill, KD2DNO, for the idea. The net is very useful checking the 745 repeater, our rigs and antennas, etc. It is very informal and sometimes we even get a topic going. We've had EchoLink checkins as well and even mobile or portable callins. Steve, KA1CNF, has checked in doing one of his “magical modes” which I still haven't understood. (I still think CW is magical. Hi.) I've checked in the net at the son's QTH very often with an HT. Since I have more than one HT (Who doesn't have more than one. Hi.), I have been able to test different HTs and HT antennas. When at the home QTH, I have experimented with which of my inside 450-ohm J-pole antennas works better on the 745. Wherever you are located at the time, give the Tuesday DARC Net a try.

For the DARC members who help out our Ontario County RACES friends with their net before ours, ***thank you for helping our SIARC comrades!***

I must give my faithful packet-teers a plug here! Six months out of the 2018 year, the packet “rogers” out numbered the digital “roger” on the Sunday night nets even with the time the -14 was down for that nine weeks. Packet is a digital mode and the oldest digital mode by the way. Well, that is not really true. CW is the oldest digital mode of communication. But they have a commonality that both when conditions are bad, they are robust, get out and they are heard. (My 25 watts SSB signal on the Army MARS nets is rarely heard. But my 10 watt CW signal is heard by the NCS on the MARS CW net 95% of the time.)

The new KB2KBY-1 BBS is working out very well at the “farm,” as I mentioned in last month's article. I must thank DARC member K2JJT, Bob, for the enlightenment with the TelNet protocol to make the packet-teering for me much easier. (Whew, thanks, Bob! You are a lifesaver.)

A special thank you for W2EVU, AB2F, and N2IZV for help getting the New York State RACES HF messages to me. You run out of ideas for net messages after awhile to come up on your own. Yea, even bird walking, BS-er KB2KBY me! I know that is hard for you to imagine. Hi.

2019? This year we will have the State and FEMA Ginna drills. Keep these dates open on your calendar: JULY 23-TUESDAY- STATE DRILL

AUGUST 20-TUESDAY- FEMA DRILL

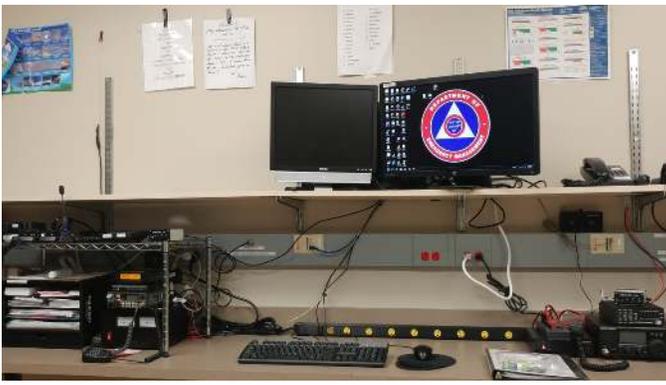
There will be training naturally before each of the graded drills. So keep looking at the DARC emails for dates and times for each. I will encourage as usual as much participation by members as you are able. (There are MARS COMEXs too for 2019. Despite my suggestions, I get no clear “skeds” for making reliable comms on either voice or CW.)

(Look at the pictures,) Finally, the long awaited shelf for the County EMO shack, a.k.a. Electical Room, was completed a few months ago. I happened to be at the EMO for the first time after Christmas and saw the un-cluttered shack. Wow! Wonderful! I happened to get my new RACES badge from Abby too. Wow!, it has all the fancy halligraphic stuff on the front. Cool! Hi. Can't wait to see what the new mugshot looks like on the new enhanced NYS license as well. (By 2021, all NY-ers will have to have the new enhanced drivers license! If yours is coming up before just go for the enhanced.) We thank George Bastedo for all the help with equipment this last year! We are blessed.

2018 was a good year. With you faithful RACES-ARES followers, 2019 will be as well. Let's keep our fingers crossed Mother Nature keeps her lid on with bad weather. As I type the local weather is saying we've a mix of freezing rain and snow coming. You know my thoughts of that “freeze” word-chills up my spine. I shiver a little just with the thought. (Goosebumps!)

Looking forward to 2019!





**EVERY TUESDAY 7PM.DARC NET on 146.745 (pl 71.9)  
repeater. Friendly rag chew and weather reporting.**

**EVERY SUNDAY 8:35 pm. WAREC RACES NET 146.685**

**EVERY SUNDAY 8pm SIARC NET 145.450**

## **January Program**

**Ev Tupis will be at our January meeting to do a presentation on VHF contesting. It will involve audience participation, hopefully we'll have a good turnout in January.**

### **NOTES:**

- 1). If winter weather requires cancelation of a meeting, the afternoon of the meeting we will make announcements via Facebook, Twitter and our Drumlins website. We will also make intermittent announcements on 146.685 and possibly on 146.745.
- 2). The Board has decided to meet only every other month unless there is a need to conduct business. We will not have A December Board meeting, and starting in January the Board will meet every other month on the Monday of the week preceeding the Club Wednesday meeting. Contact any member of the Board for more information or if you have business the Board needs to consider.

3). Starting probably with the February club meeting, we will be meeting at the EMO but on the second floor in the large Command Center room (where the Radio Shack is located). There will be construction requiring the County to use the first floor meeting room for offices for about one year. The downstairs door will be unlocked until 8pm. If you come late (after 8pm) you may not be able to get in the building.

4) The Radio Shack has been reorganized with new shelving and our new amplifier, Auto tuner and power supply. Remember, anyone removing any equipment for any reason must sign it out and sign back in using the clipboard on the storage cabinet.

# Repeaters

Repeater Report January 2019

**146.685** (allstar/echolink)- I have not heard any bad reports as such...

**146.745**-(Fusion/allstar/echolink) Reports that not running the preamp is helping, but it did cut out once when we were talking , no reason why?

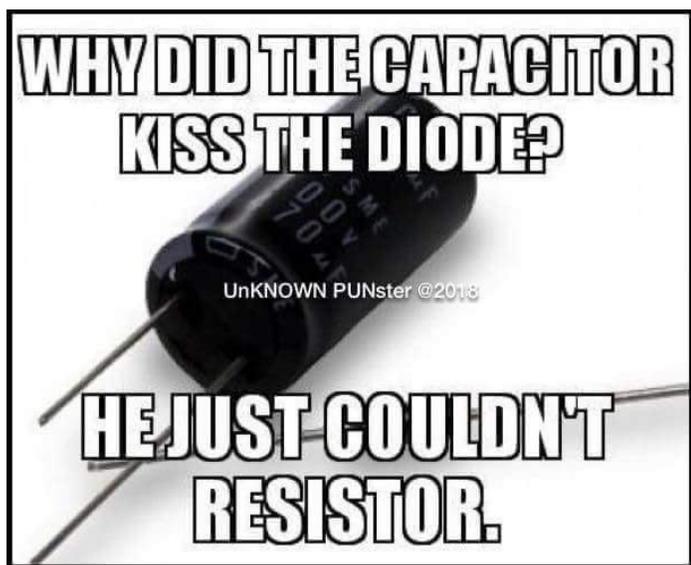
**444.750**-( dstar/wires-x/analog/allstar) Steve KA1CNF has sent out an email that a new Wires-X software is out... WE will wait to see if there's any glitches.

**224.900** (allstar)-I've heard no reports

Affiliated-

**443.250**-(analog/DMR/D-star/YSF/allstar/WX alert)- working ...little use

**927.2125**-- no feedback-could use scanner to listen if you can do narrow band



# BOARD MINUTES

01/07/19 6:30PM

Attendees: WD2STK, KC2TCM, N2IZV, K2MPE, Brenda Cook, KC2TNJ, Trista Hamill

Treasurer Report: Rich reviewed report sent out by Walter. 2 member dues paid, club insurance paid.

Repeaters: The 685 and 745 was working well. New Wires-X software available for 444.750

VE Team: No testing January. Even though Sabrina is not coordinating the VE team, the team will still be available if testing is needed. Russ is doing a Technician license training class each Saturday in March at the Newark Library with a testing session at the end. He may also do a testing session in February 1st at the Canandigua library.

Ares/Races: NTR

Upcoming Activities: Hamfest April 27, 2019 flier on webpage. Sent to ARRL by Dave. This is the same date as the Wild Water Derby and SIARC may not have a table. A minimum number of VEs needed for hamfest is being determined. The session may not happen if that number can not be met.

Field Day location is still not determined.

Spring fling date and location not set. Checking Log Cabin maybe in early June.

Public Service: NTR

Contests: VHF contest January 19th.

Remembrances: NTR

Public Relations and Business NTR

January: Ev Tupis, contest chairmen for Rochester VHF will be doing a presentation the meeting.

February ??? maybe CPR video

March ???

April – last minute Hamfest update

Jay checking on ARRL DVDs that are available.

6:55 Motion to Adjourn meeting by Russ, 2nd AI

Minutes by Rich KC2TNJ

# Protecting Shack Equipment from Electrostatic Discharge

**Dino Papas, KLOS**

In many parts of the world, the onset of winter means cold, dry air, which is just the thing you want for conducting static electricity experiments, but it also means a painful zap after walking across a carpet and reaching for a doorknob. These zaps are doubly dreaded by Amateur Radio operators because without adequate precautions, that spark can signal the destruction of sensitive electronic components. Fortunately, there are some easy and inexpensive steps to take for static protection.

## The Antistatic Mat

The antistatic mat (see Figure 1) is one low-cost way to provide localized ESD protection. It is made of a material that presents a very high resistance between any two points, dissipating any charge differential between components placed on its surface. It further dissipates static charge by a connection to earth ground, which is easily made through your home's ground system by a connection to the screw that attaches an ac outlet's cover plate. The 3M Company has an excellent guide that depicts this, along with a more exten-

sive system that includes an additional floor mat — something to consider if your workbench sits on carpeting.<sup>1</sup>

Higher quality antistatic mats are also quite resistant to heat and liquids, and you can actually touch the mat with your soldering iron tip without damaging it, so it makes a

<sup>1</sup>B. Beamer, "How to Install an ESD Workstation," a 3M Company publication available for download from [www.digikey.com/Web%20Export/Supplier%20Content/3M\\_19/PDF/3M\\_Installing\\_an\\_ESD\\_Workstation.pdf?redirected=1](http://www.digikey.com/Web%20Export/Supplier%20Content/3M_19/PDF/3M_Installing_an_ESD_Workstation.pdf?redirected=1).



**Figure 1** — A large antistatic mat covering the author's workbench. The mat's ground connection is at the lower left, which also provides a wrist strap connection point.



**Figure 2** — The wristband, which plugs into the antistatic mat's ground connection point.



**Figure 3** — The antistatic mat ground connection point.

great workbench surface. However, they are not suitable as a cutting surface like a self-healing cutting mat is.

### A Conductive Wristband

Simply working on an ESD mat doesn't always preclude zapping a component — you need to ground your body as well. The clothes you're wearing can contribute significantly to building up a static charge on your body. A conductive elastic wristband (see Figure 2) that plugs into the mat's ground point (see Figure 3) ensures that the charge is sufficiently drained away to prevent component damage.

It's up to you if you want to wear the conductive wristband every time when sitting down to do some work at the bench. Most of the time, simply touching your finger to the ground connection point or mat will most likely drain off any charge you may



(A)



(B)

**Figure 4** — (A) shows the safe discharge point for the operator's desk, comprised of copper-clad PC board plate connected to a grounding wire through a 10 MΩ resistor. (B) shows the convenient location of the discharge point beneath the receiver's tuning knob.

have built up. However, when the humidity is low, even moving your body while seated can build up a charge from your clothes rubbing together or against the fabric of your seat. Touching a piece of unprotected test gear might result in a damaging discharge, so being directly connected to a dissipative mat while grounded via your wrist strap is a good way of protecting yourself and any static-sensitive components you may work with.

### Making the Station ESD Safe

You might be inclined to install another antistatic mat at the operator's desk to provide similar ESD protection for your station's equipment, but there is a caveat — the soft mat makes a poor writing surface. I got around this problem by creating a safe discharge point that I touch first when sitting down at the operator's desk.

I made the discharge point from a small piece of copper-clad printed circuit board (PC board) connected via a 10 MΩ resistor to my station's grounding bar that runs behind the operator's desk and serves as the local ground connection for the station's equipment (see Figure 4A). The high resistance means that any accumulated charge drains off *slowly*

without a zap whenever I touch the plate. The discharge point resides conveniently just below my receiver's tuning knob (see Figure 4B).

So, on a cold, dry day when I know that static sparks are going to be flying, before sitting down at my operating position, I simply touch the discharge point and the static charge is gone. I can then touch anything on or around my desk without doing damage to the gear, or getting a painful zap to my finger.

Photos by the author.

Amateur Extra-class licensee and ARRL Life Member Dino Papas, KL0S, has been an Amateur Radio operator for almost 50 years. He holds a BSEE degree from the University of California at Davis and a Master's in engineering management from George Washington University. Dino retired as a colonel after 26 years active duty in the US Army. He now resides with his wife Toby, KL0SS, who is also an Amateur Radio operator and Life Member, in Williamsburg, Virginia, where he is president of the Williamsburg Area Amateur Radio Club. Dino and his wife host the club's Builders Group, a regular meeting of hams to homebrew together, that was described in "Ham Radio Makerspace" in the February 2015 issue of *QST*. You can contact Dino at [kl0s@arrrl.net](mailto:kl0s@arrrl.net).

**For updates to this article, see the QST Feedback page at [www.arrrl.org/feedback](http://www.arrrl.org/feedback).**



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## Drumlins Leaders 2018

President	Bill Tegtmeyer KD2DNO	315-744-0434
Vice President	Rich Hamill KC2TNJ	315-986-8589
Secretary	Sabrina Hamill, WD2STK	315-210-8078
Treasurer	Walter Dutcher II, W2WBD	585-224-5581
Program	Jay Hamill, KC2TCM	315-210-8078
RACES/ARES	Dave Taylor, KB2KBY	315-597-4293
Director 3 yr	Al Cook K2MPE	315-398-0936
Director 2 yr	Justin Toarmino W2JPT	585-944-8096
Director 1 yr	Russell Harris N2IZV	585-738-0321
Repeater Chair	Jeff Jensen, N2MKT	315-879-1588
PIO/Membership	Lew Ellwanger WE2LEW	315-587-3509
Newsletter	Lew Ellwanger WE2LEW	315-587-3509
Club Trustees	Jeff Jensen, N2MKT Sabrina Hamill WD2STK	315-879-1588 315-210-8078
Website	Richard Hamill, KC2TNJ Justin Toarmino W2JPT	315-986-8589



**OFFICIAL**  
**SKYWARN**  
**Storm Spotter**

 A US National Weather Service and Amateur Radio Volunteer Program



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### WAYNE COUNTY RACES

#### VHF NET

#### TIME-FREQUENCIES

SUNDAY EVENING 8:35PM

PRIMARY:

146.685 (PL 71.9)

WA2EMO REPEATER

Secondary

146.745 (PL 71.9)

WA2AAZ REPEATER

Voice and Digital

FLDIGI MT63-2KL

