

# Nacogdoches Amateur Radio Club

## 2018 CLUB OFFICERS

Pres: RM Blake - K5AGE

Vice Pres: Jack York - KG5POU

Sec/Treas: Army Curtis - AE5P

Visit our web site at

<http://w5nac.com/>

## MISSION STATEMENT

The Mission of the Nacogdoches Amateur Radio Club is to support and promote Amateur Radio by public service, offering training to unlicensed interested parties and licensed Amateurs, mutual support of other Amateurs, engaging events that promote Amateur radio to the general public and other Amateur radio operators, and continuing fellowship by regularly scheduled organized meetings and events and having fun.



## AUGUST MINUTES

The August meeting of the Nacogdoches Amateur Radio Club (NARC) was held as scheduled on August 1<sup>st</sup>. Secretary-Treasurer Army AE5P opened the meeting at 7:00 p.m. in the new Lunch Room of Christ Episcopal School. Eleven members and two guests were present. Each person present introduced them self. Minutes of the previous meeting were approved as published. The Treasurer's report was read.

Several contests, both recent and upcoming were

discussed. The ARRL September VHF contest is scheduled for the weekend of September 8-9 and AE5P, KT5TE, N6RH, WA5GVQ, and W5TV all indicated they planned to participate as rovers in the event. Others are also welcome to join the group.

Ms. Debbie Murray and her husband attended the meeting as guests. Ms. Murray is with the DCI Dialysis Center in Nacogdoches. Ms. Murray expressed an interest in learning more about Amateur Radio and how it could assist in providing emergency communications for her facility. A lively discussion followed outlining the existing emergency communications abilities of the club and inviting Ms. Murray to obtain her Amateur Radio

license at our next VE test session on August 15.

The Arduino Project contest had one official entrant with Tom W5TV demonstrating a very interesting project he had built to generate random Morse Code for practice. Club members present voted Tom as winning first place in the over 50 category and Tom was awarded the \$250 prize. There were no entries in the under 50 category.

Meeting closed at 8:34 p.m.

## FROM THE PRESIDENT

I would like to address the club to offer a sincere apology for my absences. I will carry from this day forward with a promise to not miss any more meetings during my term.

With that said, I would like to move to September's QST (p84-85) article, "The Debut of the Collegiate QSO Party". This QSO party is open to everyone and to be held September 15<sup>th</sup> -16<sup>th</sup> (our time = 7pm Friday the 14<sup>th</sup> till 7pm Sunday the 16th). I think it would be great to participate at any level for this event. Even if one only has time to contact a few collegiate stations, those contacts are directly helping amateur radio in much needed exposure to young adults. There is not a contest log yet, but I have emailed n1mm.

73 de RM Blake K5AGE  
[k5age@fastmail.com](mailto:k5age@fastmail.com)

## From the VP Chair

### THE EVENT (EMP) - PART I

An EMP (Electro Magnetic Pulse) in this day could be a natural or not-natural occurrence and an EMP is not the only means whereby comms can be severed in an area. Cell phones / internet are ubiquitous but they are also a weak link. As seen in other countries and during riotous times in the US, those with the levers of power can end them when they deem necessary. The following describes one scenario (EMP) and how to deal with it (taken from ARRL Antenna Book 1994, p. 1-15).

"Amateurs should be aware of which components in their radio system are more likely to be damaged by EMP. They should know how to repair the damaged equipment. Amateurs

should know how to reestablish communications after an EMP event, taking into consideration its adverse effects on the earth's atmosphere and radio equipment. One of the first things that would be noticed, providing the radio is operative, is a sudden silence in radio transmissions across all frequencies below approximately 100 MHz. This silence would be caused in part by damage to unprotected radio gear from the EMP transient. Transmissions from one direction, the direction of the nuclear blast, would be completely out. RF signal loss by absorption and attenuation by the nuclear fireball are the reasons for this. After an EMP event, the amateur should be prepared to operate CW. CW gives the most signal power under adverse conditions. It also provides a degree of message security from the general public. PART II coming."

The CW part is maybe something we should encourage "non-CWers" to learn at operational level as shown in this article.

73 de Jack York

KG5POU

[gtjakco@yahoo.com](mailto:gtjakco@yahoo.com)

## NOTES FROM OUR EC

### ARES, Significant changes coming

Before you go any further in my column, please go to the link below and also read pages 68 and 69 of the September 2018 QST,

[www.arrl.org/files/file/Media%20&%20PR/ARES/ARES%20Strategic%20Plan%20-%20final%20-%20PSC.pdf](http://www.arrl.org/files/file/Media%20&%20PR/ARES/ARES%20Strategic%20Plan%20-%20final%20-%20PSC.pdf)

I read the ARES Strategic Plan about 10 days ago and just read the QST article (25 Aug). My very first thought was this a "professional" communicator document.

This is what I distilled from my reading:

- A more "professional" organization
- Formal, standardized and documented training including ARRL EC training and FEMA NIMS/ICS training all depending on level of involvement
- On-line database of membership and activities (ARES Connect)
- Registering and obtaining an on-line ID for the FEMA training

Just the online training time may take as little as 5 1/2 hours or much as 100 hours of your time depending on how much of it will be required for the individual levels. If it is required, the ARRL on-line course is 45 hours, about 9 weeks of study and comes with a \$50 course fee.

I need some help. I really do need everyone to read those items. Digest what it says. Decide for yourself how much you can or are willing to do. Please, please respond back to me at [kc5mib@arrl.net](mailto:kc5mib@arrl.net). DO NOT again DO NOT respond through the

hamlist mail group. I do not want the group email filled up. I try to have a pretty tough skin, so unleash. BUT again do not post through the hamlist mail group.

I will close this part out with the following thought: it's not IF, it's WHEN.

And quickly, on to other stuff.

Obviously we are still in hurricane season and at this point (25 Aug), there has only been one August storm system and it was in the North Atlantic and posed no threat. Well at least not to us. The National Hurricane Center said no activity is expected for the next 48 hours. Other than hotter than a cheap pistol and a bit of rain we have had a quiet month. Many areas do have burn bans out, so please pay attention to those.

WWV, WWVH and WWVB are all being threatened by budget cutbacks at NIST. There are one or two (or more) petitions circulating.

If you are so inclined a voice sometimes adds weight. Send an email to your Congressman and to your Senators. NPR had a news article today with Tom Witherspoon (SWLing.com) discussing WWV. You can find it on the NPR website.

Lastly, your safety brief, school will have been in session for a week or more when you read this, so watch for the kiddos going to school, the new drivers, and the buses.

73 de John Chapman  
KC5MIB  
[kc5mib@arrl.net](mailto:kc5mib@arrl.net)

Editor's Note:  
Please see the link to proposed comments regarding the ARES Strategic Plan on page 5 of this newsletter.

## VE TESTING

Our next VE testing is scheduled for **Wednesday September 19 at 7:00 p.m.** in the Lunch Room of Christ Episcopal School (Our usual meeting place).

Applicants should bring a picture ID, the original and a copy of their current Amateur license, the original of any CSCE's and \$15 to cover the cost of the exam(s). Correct change is always very much appreciated.

Please keep in mind that the Technician license question pool was changed effective July 1.

73 de AE5P

email: [ae5p@arrl.net](mailto:ae5p@arrl.net)

## NEW HAMS

At our VE testing session on August 15, we did not have any candidates. NARC holds VE testing sessions the third Wednesday of each month, whether we have candidates or not.

## TWO METER CLUB NETS

Remember to join us each week for the two meter nets sponsored by NARC. Each **MONDAY** is the **NARC ARES/RACES** net,

at 8:00 p.m. on the club's 146.84 repeater (PL 141.3). Second, on **THURSDAY** evenings at 8:00 p.m. is the **Deep East Texas Skywarn Emergency Weather Net** on the 147.32 repeater (PL 141.3). Please join us for one or both.

## NEXT MEETING

The next meeting will be **Wednesday September 5th at 7:00 p.m.** in the Lunch Room of Christ Episcopal School (Our usual meeting place).

## ARES STRATEGIC PLAN COMMENTS

The ARRL's Proposed Strategic Plan referenced by our EC in his column in this newsletter, is not yet a done deal. It is "Proposed" and comments have been asked for from members.

Comments have been prepared by the club Secretary/Treasurer and will be discussed at our

next club meeting on September 5<sup>th</sup>.

All NARC members are asked to review the comments which are available on the club website at <http://w5nac.com/arrl-proposes-changes-to-ares/>

and be prepared to discuss at the next club meeting.

**UPCOMING****EVENTS OF NOTE**

Mark your calendars for the following events coming up in the next few months. Full information on these events and much more can be found at <http://www.contestcalendar.com/contestcal.html>

Items in RED are NARC Club Events

ARRL September VHF  
Sept 8-9

Texas QSO Party  
Sept 29-30

CQ WW DX - SSB  
Oct 27-28

ARRL Sweepstakes -  
CW  
Nov 3-4

ARRL Sweepstakes -  
SSB  
Nov 17-19

CQ WW DX - CW  
Nov 24-25

ARRL 10 Meter  
Dec 8-9

## Introduction to Microcontrollers

by

Thomas Atchison, W5TV

In our club we have recently been talking about microcontrollers and Arduino. Since we are all new to this topic I thought it would be good to do some WEB searches and see what could be found that relates to this topic and to amateur radio.

Some of you may remember that Ten-Tec marketed two or three versions of amateur radio transceivers a few years ago. I believe one was called the Rebel. These involved microcontrollers and the Arduino language.

More recently we had three transceivers in our club called  $\mu$ BITx. These were single board transceivers that used a microcontroller and the Arduino language to provide a complete 80 through 10 meter transceiver with an output of between 10 and 15 watts.

There have also been many books and articles written about microcontrollers and Arduino that relate directly to amateur radio. Two of these are published by ARRL. One is entitled 'Arduino for Ham Radio' and the other is 'More Arduino Projects for Ham Radio'. Both are by Glen Popiel, KW5GP.

Microcontrollers have been around since the early 1970s, but they have been slow to penetrate the amateur radio arena. However, a number of things are beginning to change all of that. First, the unit cost of many popular microcontroller chips is less than \$10, putting them within the price range of experimenters. Second, several microcontrollers are Open Source, which means there is a large body of existing technical information and software available for them at little or no charge. Finally, despite their small size, today's microcontrollers are extremely powerful and capable of a wide variety of tasks. Most of these development boards are not much bigger than a deck of cards.

The Arduino microcontroller board was developed in 2005 by a group of students in Italy using an 8-bit Atmel AVR microcontroller. The students' goal was to develop a low-cost development board that they could afford. The original hardware was produced in Italy by Smart Projects. Subsequently, SparkFun Electronics, an American company, designed numerous Arduino-compatible boards. Atmel is an American based company,

founded in 1984, that designs and produces microcontrollers which form the nucleus of the Arduino boards.

There are lots of resources for the Arduino family, from both books and magazine articles. Search Arduino books on Amazon and over 400 entries pop up. Google the word Arduino and you'll get over 21 million hits.

In the early days of programming you would write a program source code with a text editor, run another program called a compiler to generate assembler code, run an assembler program to generate the object code, and then run a linker to tie everything together into an executable program. Today, all of these separate processes are rolled into a single application called the Integrated Development Environment, or IDE. In other words, all of the steps are controlled from within a single program and Arduino makes the Arduino IDE program available to you free of charge. If you go to <https://www.arduino.cc/en/Main/Software> you will find the main page for downloading the Arduino IDE. You will also find a lot of information about Arduino at this site.

If you go to <https://www.sparkfun.com/> you will find an extensive WEB site that will give you many boards with prices under the SHOP tab and tutorials and videos under the LEARN tab. This is an excellent source of hardware and information. I have also found that Jameco Electronics at <https://www.jameco.com/> is an excellent source of parts, kits, and information. This site is not limited to Arduino boards but it is a good one to have as a source. Of course you can always go to Amazon.com and search for Arduino boards and you will get many hits. Some of these will have clone boards as well as official Arduino boards so be careful what you order.

My experience has been with the Arduino Uno board. This board can be obtained either as a single board or in a kit that provides several projects with parts to introduce you to wiring up circuits and preparing Arduino sketches (programs) that will make the Uno board perform. The Uno Revision3 (Uno R3) is a good board to use to 'get your feet wet'. It doesn't cost too much and it will let you know if you want to put more time in on learning about this area. One source of the Uno R3 board is at <https://store.arduino.cc/usa/arduino-uno-rev3>.

If you want to get a good beginning book that is free, Army Curtis, AE5P, found an excellent one on-line. It is available at the following site: <http://www.ebook777.com/arduino-projects-amateur-radio/>.

I hope the above information will help you get started with microcontrollers. It is a new world for experimentation at very little cost and it contains many projects that relate to amateur radio. Have fun!

## MY TWO CENTS

FOX WILLY ROGER

SEPTEMBER 2018

Well we have two important days left to keep in mind, the first is, my BIRTHDAY, A NOTHER YEAR OLDER BUT MUCH BETTER LOOKING, you still have time get me that perfect gift, and the TXQSO.

October is next meeting month and with that comes Halloween, and the costume contest, this years theme is "come dressed as your favorite sandwich, and don't forget the sides that go with that sandwich like a beer or pickles or French fries. Best of show will receive the grand prize. Contact AE5P for complete rules and a hint of the grand prize might be. Good luck and remember, this is for fun, so join in, come to the meeting and let your hair down.

You getting ready for TXQSO, you should be? This is one of the fun time that a ham can have during a year of fun, get on the air waves and have fun, make a few contacts, these contacts need not be a record for you but it might be for a fellow ham, this fun works both ways.

Who was the winner of the AE5P challenge, what was the great complement the winner displayed to win? Did it walk, run, talk, play cards, or cut a person in half, or what?

Jack has a load to say, I'm sure, what it is, like always, I have no idea, all I know is Jack spent a lot of time talking with TWT this month.

The leaves on the trees and bushes are turning brown and falling off, this is not because the coming of fall but the long hot summer. Any guess when the cooler weather will arrive?

### QUESTION:

Why is the widest board that is offered is "12 inches"?

Why is it called a watermelon and not juice melon or a melon juice melon?

Why is it called a belt and not hold them up?

### REMEMBER:

Remember your lunch sandwich wrapped in wax paper?

Remember aluminum drinking glasses?

Remember playing solitaire with cards?

**COMENTARY:****What the hell is going on?**

Are we loosing many of the great people of this world, Senator John McCain is who I refer. Many can say that they are good or honest, but not many have proved that in there every day lives. Senator John McCain was just that kind of person, following the men of his family, the military was just the start, living to a code, a code, that many dream of following, and a few live part of that code, and a small group, a very small group, surpass that code, that was Senator John McCain. A common man he was not, not in any sense of the word.

Thank you, Senator John McCain

**GUEST COLUMNEST****JACK TALDI****THE CRAZY CAT GUY:**

The end of an era, or is it?

Or I thought so; I was getting ready to write my last New Letter. I might be getting a bit ahead of myself, let me start a few weeks ago, the end of July to be exact, **TB** was playing her latest game of spending time "in the wild" I kept getting up during the night just to see if she was sitting at the front door. A day or two later I spotted her in the back yard jungle, she told me all that was happening in her life these days. That's when I figured out that **TB's** wild stopped at 4627's property lines, a paper lion for sure. This went on for about a week and on that day she said that she had forgiven me and ready to be my friend once more. Into the house she ran and glued herself to my side ever since.

I got a new bed about a month, like most people I decided to down size; I went to a Single from a Queen that was a learning curve, to say the least. After trying every spot possible on the new bed, **TB** staked out her place at one of the foot ends corner, that's not to say that **TB** doesn't try other spots, but my tossing and turning finds her at the bed's foot in the morning.

**RP** goes outside now and then, but that doesn't seem to be on the top of hers list of must dos, she is content to just stick her head out the door and giving a quick look see. Other than that **RP** just eats, sleeps, and visits me at get up and goes to bed times, **RP** is my gentle giant. The other day I was playing in the shop and noticed that **RP** had

settled into the storage cabinet and was just watching me go about whatever I was doing. The only way I could see her was by her golden eyes watching me.

"The pride is still three members strong with **Tuff Guy**, the outside man and **RP** and **TB** the inside gals, this seems to be a good working family.

**Heckle and Jackal** are still visiting, now and then. The Doves are still friends of the nationhood and that's a good sign. I was outside sitting on my bench collecting and directing all the sun I could to my bones, when the hummingbird mentioned to me that the nectar was out and I had fallen behind in my responsibilities. I refilled the feeder twice since then. Two days ago I spotted a second **HB** flying around the feeder, that explains the quick need to refill my feeder, they both gave me a fly by and zipped to the appointment.

**DOGS HAVE MASTERS  
CATS HAVE SERVANTS**

**"THOUSANDS OF YEARS AGO CATS WERE WORSHIPED AS GODS  
THEY HAVE NEVER FORGOTTEN"**

**BE THE KIND OF WOMAN/MAN THAT WHEN YOUR FEET HIT THE GROUND  
EACH MORNING THE DEVIL SAYS, "OH CRAP, THEY'RE UP"!**

**LIVE WELL, LAUGH OFTEN, AND LOVE MUCH!!!**

**KEEP YOUR POWER DRY AND YOUR HEAD BELOW THE HORIZON**

**HAPPY TRAILS**

**John Cechin W5FWR**  
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