



ARASWF

Newsletter



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Upcoming Events

**The next Club Meeting will be held March 24th 2015 at 7:00pm
at the Red Cross - 2610 Northbrooke Plaza Drive Naples, FL**

Nickels & Dimes

I made the mistake of dating a check '2014' this past week, and it reminded me just how quickly time passes. We are closing our first quarter and what a busy one it has been.

WB2QLP is up and running on both cylinders, AllStar and Echolink, and you may have noticed a few differences. For instance, the double courtesy tone indicates you are connected to an AllStar node. The transmitted audio through the repeater is band pass filtered and according to some sounds 'tinny', while the audio forwarded VoIP to either AllStar or the Echolink system is full spectrum and sounds normal *at the other end*. Full spectrum audio can be transmitted and received locally if the user simply switches off their PL tone, this action disables VoIP. Personally, I don't find this a problem since I spend a fair amount of time on HF where this type of sound quality passes for normal.

A big contributor to the project success was Board member Gary-K8YMN and new member Mark-KM4GJB. What a team... Gary brought his repeater and Linux experience, while Mark provided his expertise with VoIP systems (specifically with the Asterisk, which the AllStar system is based upon). Mark explained he was able to connect the missing dots utilizing his newly found radio skill set which he gathered while preparing for his Technician exam last fall.

Their success was our gain! WB2QLP can now be connected to any AllStar worldwide node and you can now DX with your HT. Thanks to all who helped along the way.

Rich-K4AOR deserves kudos this month for organizing the Club outing to Oil Well Park. About twenty members made the thirty mile trek out to the park to setup antennas, radios, and most importantly K4AOR's thermal rig... Check out the pictures included in the Newsletter. Again, thanks to Rich and everyone who showed up to make a QSO!

Later this month is the scheduled Collier County ARES/CERT Simulated Emergency Exercise Event, which is scheduled for 8:30am Saturday March 21st. Teams will meet to practice their emergency preparedness skills. Additional details and a map are included in this month's Newsletter.

Finally, the Club roster will be set on April 1st, please bring your check or mail your dues before the end of the month. Please don't fade away, we need you!

Plan to attend our March meeting and get involved in one of the special interest groups this year. Be an Elmer, share your talents and experience with other members.

Ken-W9KB
ARASWF Secretary/Treasurer

Amateur Radio Association of Southwest Florida

**Executive Board Meeting held at Apollo, Naples, FL
Tuesday, February 17, 2015**

Present: Uli Altvater, AG0X – President
Ken Bills, W9KB – Secretary/Treasurer
Mark Harms, AC4ZM – Director
Dave Ducett, WB8VQU – Director
Gary Lee, K8YMN – Director
Larry Kielasa, KC8JCB – Director

Absent: Eric Gissendaner, KF4IXA – Vice President

MEETING MINUTES

Meeting called to order: The meeting was called to order at 7:00 pm.

President's Report – Uli-AG0X welcomed the Board and gave a brief update.

Treasurer's Report – Ken-W9KB reported that the Club checking account had a current balance of \$5,362.78. Expenses for the month included \$62.00 for the Club PO Box rental and \$90.10 for the Oil Well comfort station.

Old Business: Uli-AG0X reported that a recent work party to the WB2QLP repeater site successfully improved the duplexer tuning and installed an AllStar/Echolink gateway computer. The new repeater gateway node now reports its status, but for some reason does not pass voice data across the Internet. Gary-K8YMN is working with AllStar experts to resolve the software problem.

Mark-AC4ZM reported that the Collier County area ARES CERT groups will conduct an emergency practice exercise on March 21st in North Naples. Location and specific details will be published in the Alert Newsletter. Mark encouraged all those members interested in EmComm to attend.

Mark also reported that we had three successful VE test candidates last month. Lee Elmore (KM4HPS) passed his Technician exam. Club member He also mentioned the new General test will be available in July.

New Business: Uli attend Orlando HamCation with Frank-W4RBW and provided a recap of the weekend activities. Tim-KC4SSD and Joe-K9KNW were there and parked onsite with their RV's. The weather cooperated this year and a good time was had by all those who attended.

The Board discussed several ideas to promote membership and activation. One idea is putting together a Club brochure similar to the one FMARC passed out at a recent membership meeting. Dave-WB8VQU suggested a Club field trip to operate aboard the "America Victory" a retired Navy ship that is available for tours in the Tampa Bay. Dave volunteered to check out cost and available dates. <http://www.americanvictory.org/>

The membership meeting schedule was discussed. Last summer we extended our meeting schedule from June through September on a trial basis. As expected, meeting attendance was lower than our traditional schedule from October through May. However, the extra three meeting required more administrative work than in past. It was decided to try a summer lunch meeting this year and see if this suitable format and a better balance of workload and membership involvement.

Oil Well – Mark-AC4ZM reported that Rich-K4AOR has scheduled this event for February 21st and has all the bases covered on this project. A map and details will be published in the Newsletter.

The Board discussed at set the agenda for the next membership meeting.

Specific assignments that were taken out of the meeting:

- WB8VQU – Check out "American Victory" schedule and cost
- K8YMN – Test & verify AllStar computer setup
- W9KB – Develop membership brochure

Next Board Meeting – March 17th 7:00pm at Apollo (AG0X business QTH)

Adjournment: The meeting was adjourned at 8:25 pm.

Respectfully submitted,
Ken Bills, W9KB
Secretary

Amateur Radio Association of Southwest Florida

Regular Membership Meeting held at the Naples American Red Cross.
Tuesday, January 27, 2015

Officers and	Uli Altvater, AG0X – President
Directors present:	Eric Gissendaner, KF4IXA – Vice President
	Ken Bills, W9KB – Secretary/Treasurer
	Mark Harms, AC4ZM – Director
	Larry Kielasa, KC8JCB - Director
	Dave Ducett, WB8VQU – Director

Absent: Gary Lee, K8YMN – Director

Meeting called to order: Uli-AG0X called the meeting to order and opened it with the Pledge of Allegiance. He gave a brief report on his recent trip to Orlando HamCation.

Introduction: All attendees were introduced by name and call sign, also an attendance sheet was passed for all to sign-in. 30 members were in attendance and three guests. Robin D from the Naples Daily News was in attendance to gather information for an upcoming article. Richard Varnes who plans to take his Technician exam next month, and Sharron Miner-NH6GR who plans to join our Club.

Treasurer's Report: Ken-W9KB reported that Club checking balance was \$5,412.78 including \$175 in dues receipts for the month. Expenses were \$90.10 for Oil Well Outing and \$62.00 for our Club PO Box renewal.

Old Business: Uli-AG0X reported that the Marbella work party went well. The duplexers were retuned for improved performance. Gary-K8YMN added a new AllStar gateway computer which also included Echolink. While the node status was initially reported without issue, the digital voice stream was not being handled properly.

One of our newest members, Mark-KM4GJB a VoIP and Networking expert, was able to sort through our software and Internet issues and get the system working properly. Big kudos go out to both Gary and Mark for their many hours of work to get WB2QLP up and running on both AllStar and Echolink.

Ed-K1UQE provided an updated EmComm report of this past month's activities. The next meeting with the county is March 26th 2:00pm and the EOC facility.

Mark-AC4ZM also reported he had no candidates this month for VE testing this month.

New Business:

Mark-AC4ZM reported he will conduct a follow-up Digital School workshop at the Red Cross on Saturday March 7th from noon until 2pm. This is a great opportunity to test and improve your digital mode communication skills.

AC4ZM and K1UQE also mentioned a planned upcoming county wide ARES/CERT simulated emergency exercise designed to test our readiness to response to a typical emergency situation.

The event will take place on March 21st at 8:30 am. The exercise will be staged at 810 Nursery Lane, just north Immokalee Road and one mile west of Collier Blvd. This great way to practice our skills and help other area CERT Teams with our communication and radio expertise.

Rich-K4AOR reported that the annual Oil Well Park Outing was a success and well attended. It was held Saturday February 21st. The weather cooperated and was perfect, the hot dogs and hamburgers were well received.

50/50 Raffle (\$79) was won by George-AA4GT.

Social Break: 20 minutes

Presentation: Dr. Al Torres-KP4QAI described how to design and build a highly effective 2m dipole antenna using readily available materials for little cost and big performance!

Using two inch aluminum foil tape and a piece of wood for an insulator (dielectric), Dr. Al built an antenna with the help of an assistant, a shorten dipole antenna that provided both good efficiency and wide bandwidth. The results were verified using a MFJ-259 antenna analyzer.

Adjourn: Motion to adjourn meeting at 9:02 p.m. made and seconded. Motion passed by all present.

Respectfully submitted,
Ken-W9KB, Secretary

Contest Calendar

March 2015

EA PSK63 Contest	1600Z, Mar 14 to 1600Z, Mar 15
+ Idaho QSO Party	1900Z, Mar 14 to 1900Z, Mar 15
North American Sprint, RTTY	0000Z-0400Z, Mar 15
+ Wisconsin QSO Party	1800Z, Mar 15 to 0100Z, Mar 16
Run for the Bacon QRP Contest	0100Z-0300Z, Mar 16
+ SARL VHF/UHF Analogue/Digital Contest	1600Z, Mar 20 to 1000Z, Mar 22
BARTG HF RTTY Contest	0200Z, Mar 21 to 0200Z, Mar 23
+ Russian DX Contest	1200Z, Mar 21 to 1200Z, Mar 22
SKCC Sprint	0000Z-0200Z, Mar 25
+ CWops Mini-CWT Test	1300Z, Mar 25 to 0400Z, Mar 26
CQ WW WPX Contest, SSB	0000Z, Mar 28 to 2400Z, Mar 29

April 2015

SARL 80m QSO Party	1700Z-2000Z, Apr 2
+ LZ Open 40m Sprint Contest	0400Z-0800Z, Apr 4
SP DX Contest	1500Z, Apr 4 to 1500Z, Apr 5
+ CWops Mini-CWT Test	1300Z, Apr 8 to 0400Z, Apr 9
JIDX CW Contest	0700Z, Apr 11 to 1300Z, Apr 12
+ SKCC Weekend Sprintathon	1200Z, Apr 11 to 2359Z, Apr 12
Georgia QSO Party	1800Z, Apr 11 to 2359Z, Apr 12
+ Hungarian Straight Key Contest	1500Z-1700Z, Apr 12
Holyland DX Contest	2100Z, Apr 17 to 2100Z, Apr 18
+ TARA Skirmish Digital Prefix Contest	0000Z-2359Z, Apr 18
ES Open HF Championship	0500Z-0859Z, Apr 18
+ CQ Manchester Mineira DX Contest	1200Z, Apr 18 to 2359Z, Apr 19
Michigan QSO Party	1600Z, Apr 18 to 0400Z, Apr 19
+ Ontario QSO Party	1800Z, Apr 18 to 1800Z, Apr 19
YU DX Contest	2100Z, Apr 18 to 1700Z, Apr 19
+ Run for the Bacon QRP Contest	0100Z-0300Z, Apr 20
SKCC Sprint	0000Z-0200Z, Apr 22
+ CWops Mini-CWT Test	1300Z, Apr 22 to 0400Z, Apr 23
10-10 Int. Spring Contest, Digital	0001Z, Apr 25 to 2359Z, Apr 26
+ SP DX RTTY Contest	1200Z, Apr 25 to 1200Z, Apr 26
Helvetia Contest	1300Z, Apr 25 to 1259Z, Apr 26
+ Florida QSO Party	1600Z, Apr 25 to 2159Z, Apr 26

Marco Island News:

Ulrich Rohde, N1UL (ex-KA2WEU), has been named by the Institute of Electrical and Electronics Engineers (IEEE) to receive the prestigious I. I. Rabi Award for 2015. The award recognizes outstanding contributions related to the fields of atomic and molecular frequency standards, and time transfer and dissemination. The author of some 200 scientific papers and books, including several *QEX* and *QST* articles, Rohde was cited specifically for "intellectual leadership, selection, and measurement of resonator structures for implementation in high-performance frequency sources, essential to the determination of atomic resonance."

"I am really in disbelief and overwhelmed by this totally unexpected honor close to my 75th birthday," Rohde said in thanking Gregory Weaver, the 2015 Awards Chair of the IEEE International Frequency Control Symposium (IFCS) Standing Committee. "Since the age of 16, I have been fascinated with oscillators as well as their performance and their influence on atomic standards. Some of the results of my research are still the basis of all really high-performance oscillators."

Last year Rohde was the recipient of another IEEE IFCS honor, the C.B. Sawyer Memorial Award, which recognizes "entrepreneurship or leadership in the frequency control community; or outstanding contributions in the development, production or characterization of resonator materials or structures."



Ulrich Rohde, N1UL

Rohde, who is the chairman of Synergy Microwave Corporation and President of Communications Consulting Corporation, will receive the Rabi Award at the 2015 Joint Conference of the IEEE International Frequency Control Symposium and European Frequency and Time Forum, held April 12-16 in Denver.



FCC Enforcement Bureau Field Resources Poised to Shrink

According to an internal FCC Enforcement Bureau (EB) memorandum, the Bureau plans to ask the full Commission to cut two-thirds of its field offices and eliminate nearly one-half of its field agents. At the same time, the Bureau would develop a so-called "Tiger Team" of field agents as a flexible strike force it could deploy as needed. In the March 10 memorandum to Enforcement Bureau field staff -- obtained by ARRL and others -- EB Chief Travis LeBlanc and FCC Managing Director Jon Wilkins cited the need to take "a fresh look" at the Bureau's 20-year-old operating model in light of technology changes and tighter budgets. ARRL CEO David Sumner, K1ZZ, expressed dismay at the proposals.

"The ARRL is concerned that there is already no sense of urgency in the FCC's enforcement activities targeting spectrum polluters, such as utilities with noisy power lines, or the few violators in our own ranks," Sumner said. "It is troubling to see recommendations for such drastic reductions in the Commission's geographic footprint and the number of field agents at a time when the Field staff is facing ever-increasing challenges."

The EB and the Office of the Managing Director initiated an effort last fall to modernize the Bureau's field operations, the memorandum said.

"This project sought to ensure that the Field's structure, operations, expenses, and equipment were properly aligned with the Commission's overall mission and resources," LeBlanc and Wilkins said. The Commission hired outside consultants to analyze the EB's current "operating model," gathering input from employees, outside experts, and internal and external stakeholders.

Under its "Phase I" field modernization scheme, the Bureau will recommend to the full Commission that it adjust the primary focus of its reduced field office complement to RF spectrum enforcement. The EB will also recommend "adjusting" the number of field agents from 63 to 33. To compensate, part of that field staff complement would include what the EB called a "Tiger Team" of agents "flexible enough to support other high-priority initiatives." Under the plan, all field agents would have to have electrical engineering backgrounds "to support the primary focus on RF spectrum enforcement." The Bureau will also propose standardizing its investigatory and sanctioning processes.

Management would not be spared. Under the recommendations, the EB field organization chart would shrink from 21 to 5 director positions, and from 10 to 3 administrative support positions.

Under the proposals, the field office would reduce its "geographic footprint," from 24 sites to 8 sites and would "pre-position" equipment in several other strategic locations. Offices slated to stay under the

plan would be New York City; Columbia, Maryland -- the site of the Bureau's HF Direction-Finding Center; Chicago; Atlanta; Miami; Dallas; Los Angeles, and San Francisco. The EB would deploy equipment in or near several other cities, initially to include Kansas City, Salt Lake City, Phoenix, Seattle, San Juan, Anchorage, Honolulu, and Billings, Montana.

Part of the plan calls for the EB to establish "beneficial partnerships between the Field and other organizations that may support increasing our effectiveness."

During a March 4 US House Subcommittee on Communications and Technology Committee hearing on the FCC's FY2016 budget, Rep Michael Pompeo (R-KS) pressed Wilkins on whether the FCC intended to close any field offices and eliminate any personnel. Wilkins attempted to dodge offering a direct answer, and hedged on whether any cuts were planned. He also said the Bureau had not yet received a final report from the outside consultant it had worked with. US Rep Greg Walden, W7EQI (R-OR), chairs the subcommittee.

A copy of the memorandum was sent to National Treasury Employees Union (NTEU) Local 209 President Ana Curtis. The NTEU represents many FCC staff members.

Danish Astronaut is Among Latest Group of Space-Bound Radio Amateurs

Only one radio amateur -- Samantha Cristoforetti, IZØUDF -- is now aboard the International Space Station, but five more astronauts -- including one from Denmark -- have passed the US Technician license exam, and three of them will be among those heading to the ISS this year and next. The newest licensees are Thomas Pesquet, KG5FYG; Jack Fischer, KG5FYH; David Saint-Jacques, KG5FYI; Kathleen Rubins, KG5FYJ, and Andreas Mogensen, KG5GCZ.

Pesquet joined the European Space Agency (ESA) astronaut corps in 2009. Starting in November 2016 he will serve as a flight engineer on ISS Expeditions 50 and 51. Fischer was selected in 2009 as a member of the 20th NASA astronaut class, while Saint-Jacques, selected in 2009 by the Canadian Space Agency, has moved to Houston to join the 20th NASA astronaut class. Rubins, also selected in 2009 as a member of NASA's 20th astronaut class, will serve as a flight engineer for ISS Expeditions 48 and 49, which heads to the ISS in May 2016. Mogensen, who also joined the ESA astronaut corps in 2009, has been training in Texas. When he heads to the ISS this September for a 10-day mission, he will become the first Danish astronaut to go into space. Accompanying Mogensen on the *Soyuz* spacecraft will be British soprano Sarah Brightman -- who has paid \$52 million to be a "spaceflight participant" for 10 days -- and cosmonaut Sergei Volkov, RU3DIS.



Newest Astronaut-Ham: Andreas Mogensen, KG5GCZ. [NASA photo]

Later this month, NASA astronaut Scott Kelly and Russian cosmonauts Mikhail Kornienko, RN3BF, and Gennady Padalka, RN3DT, will head to the ISS, and Kelly and Kornienko will remain onboard for 1 year -- the longest space mission ever assigned to a NASA astronaut. Cristoforetti will head back to Earth in May, after Kjell Lindgren, KO5MOS; Oleg Kononenko, RN3DX, and Kimiya Yui arrive at the ISS as part of a scheduled crew rotation

Understand the 'New' WB2QLP Repeater

We have now the AllStar & Echolink systems on the air, thanks in part to Gary-K8YKM who donated a computer loaded with AllStar software. Here is best way I can describe what is going on with the new repeater setup:

PL Tone ON: Your RX & TX will be passed thru the AllStar & Echolink systems. The audio will sound somewhat tinny locally, but it will TX thru the VoIP systems clearly. Also there will be a little delay in the courtesy beep. You will be able to RX the two-way conversation on both ends. The Internet connection will pass your audio clearly.

PL Tone OFF: Your RX & TX will not be passed to the AllStar & Echolink systems. The audio will sound normal over the repeater. Also there will be a quick delay in the courtesy beep; again no audio will be passed over the Internet connection.

Also, please do not connect and disconnect without speaking (no 'klunking'). When you connect, pause then give your callsign and a short message, then listen for the courtesy tones to determine if your setup is working properly.

It is annoying to repeatedly hear the system connect and disconnect without any callsign or audio transmitted.

If you have questions, please contact me on the repeater or my email: kd4jmv@comcast.net

Stay Healthy, Stay Well, most of all, Stay Alive.

73

Harry-KD4JMV

For more information and the AllStar node list visit: <https://allstarlink.org/>



For more information and the Echolink node list visit: <http://www.echolink.org/>





Here are some helpful hints for using the AllStar WebTransceiver or repeater system:

Remember, it is not polite to connect to a node and then not transmit, what is heard on the other end is *node (your callsign) connected*. The same when you disconnect.

When you connect with the AllStar WebTransceiver or use the WB2QLP repeater it is best to say something after you hear *connected to node number.....* Usually when an operator does connect to a node they give their callsign and let others know they are *listening*. This is would be the same if you are using the WB2QLP repeater.

Following this procedure you will verify that you are connected to a node and perhaps someone will answer you call. Repeat your callsign again, listen for a minute or so, if the node remains is unresponsive you may then disconnect. Usually you might connect to a node to participate in a directed net, so again *listen* and follow the net check-in protocol.

Connecting to an AllStar node on the WB2QLP repeater is relatively easy as well, however, beforehand you will need to know the node number you would like to connect, plus a few basic commands.

Let's say you would like to connect to Anchorage, AK for a net, then you would enable your DTMF keys and enter *3 to connect along with the node number 27528 (e.g. *327528). You would then wait to hear the *node 40632 connected* message, then key-up and give your callsign. Wait and listen for a response, repeat if necessary. After your QSO, please disconnect the node by using DTMF sequence *1 to disconnect along with the node number (*127528).

If you are connecting through the EchoLink system, you will hear a beep tone when the carrier drops. On AllStar, they utilize their own beep tone, but it is not heard on any of the other repeaters connected. The IRLP and AllStar systems do not pass a repeater beep tone on any of the connections over the VoIP Systems.

If you need help with the Repeater VoIP Systems, please call on the repeater and see if someone will help you out.

You can talk all over the world if you can do it correctly. Do not be scared, this is part of Ham Radio, to learn as you go.

The “Ubiquitous” Microcomputer/ Microprocessor/ Microcontroller

(A Personal Experience)

Forty years ago I was teaching physics courses at the university (SUNYA) and supervising graduate teaching assistants in the department. My responsibilities were teaching the calculus based introductory course and teaching the introductory course in electronics for undergraduates and graduate students. At that time we were exchanging our slide rules for the more modern hand held scientific calculators (Note – no evidence of the micro-processor). The 4-bit programmable calculator chip dominated the scene, most notably by Hewlett-Packard and Texas Instrument. Intel expanded the bus of the 4004 chip to 8 bits in the 8008 with a more comprehensive instruction set. The 8008 chip required a significant number of support chips to build a working “microcomputer” and had a limited address bus for one to use as a development device. It was quickly superseded by the 8080 microprocessor and its family of support chips by Intel. The 8080 provided an 8-bit data bus and a 16-bit address bus. This family of chips formed the basic foundation for the development of the modern microcomputer/ microcontroller unit. The other manufacturers of integrated circuit chips responded with chip families for the 2650, 6502, 6800, Z8, Z80, and SCAMP chips. Thus began my love - hate frustrating relationship with microprocessors/ microcontrollers.

Before continuing with that experience, I need to remind the reader of the general status of the use of computers at that time. The computers were classified either as “main frame installations or minicomputer installations. Main frame computers were located at educational institutions (colleges and universities), at large industries, and at government facilities. All of these locations have the requirement of handling quantities of data and manipulating that data to meet the client needs. The minicomputers flourished in environments where the owner did not have the need to handle the volume of data or only needed a smaller computer to handle a control process. Of the later group the PDP series of computers was one of the most popular in the laboratory setting. At that time the existent computer programming languages reflected the pre-dominant usage of the computer. They were the native language or machine language, a command line operating system (Unix most common), COBOL (business oriented high level language), Fortran (the scientific and engineering group), and BASIC (general education). These same languages were ported to the minicomputers. Communication between the user and the computer was accomplished using Hollerith cards (key punched cards using a 12-bit format) off line or a teletype machine (using ASCII) on line. All computers have a basic input/output system (BIOS) that prepares the system for commands which will either load a specific application or await instructions to desired ensuing operation. Main frames are time-shared multiuser number crunchers whereas minicomputers in the scientific and engineering communities were used as controllers, data gathering, and program development platforms. The limitations in memory storage for the variety of client applications and/or the data necessary for those calculations made it necessary for the client to maintain his applications and the necessary data on boxes of Hollerith cards. As with all main frames the largest single user of these computers is the administrative function. That was true at the university; however, the second largest user was the Physic department.

Returning to the scenario, quickly following the announcement of the 8080 chip family, the MITS S-100 micro computer appeared (we got two of them to build and test.). The unit had a limited BIOS and returned control to the user for instructions and data to be entered via twenty

four SPDT toggle switches on the front panel. All the manufacturers inundated the education community with development boards for their chip family. This is where the first stages of frustration become apparent. For each of the development packages there was a stack of documentation consisting of the specifications and possible application notes making a stack of reading and study of one to three inches high for each family of microprocessors. In the world of R&D the name of the game is process control, data gathering with storage capability for later manipulation, the relay of said data to a main frame for sophistic analysis quickly and reliably, and the microcontroller unit must be adaptable to the variety of client tasks (the listed tasks are also applicable to communications).

Intel recognized the importance of placing evaluation and development materials into the academic community and made available for purchase at reduced priced to faculty for study and inclusion into their teaching (In the first formal microcomputer course that I taught, I remarked that these devices would be embedded in control applications). At the right is a complete set of the materials in that first development package. The other chip manufacturers



responded with their own development materials. In the teaching community we already had been using a "general purpose information bus (GPIB) with the minicomputers in the accelerator labs and in individual study areas for analog of the instrumentation. The dominate development card was the "vector" card (double sided card w/ total 50 connections (25 per side)). As indicated the first 8080 based microcomputer cards were based on the S-100 bus (double sided, 50 connections per side) and inserted into a back plane/ motherboard. A 72 pin (double sided, 36 pins per side) was preferred by Motorola (6800 microprocessor) and National (SCAMP). This station opted for the S-100 and the 8080 for primary control and data acquisition and used an audio tape recorder for data storage. The BIOS was written for I/O and POST in machine code with transfer to a floating point BASIC interpreter burned into ROM. The control applications were written in BASIC and stored on tape cassettes for use during the experiments. This station has development boards for the other two busses and used them for study and experimentation. On the vector cards I have a card for each of the microprocessor earlier with the BIOS permitting the operations as on the S-100 units.

The embedded microprocessor appeared quickly in the development of CRT terminals replacing the TTY for communication w/ the microcomputers, minicomputers, and mainframes. This was extended to RATT terminals as well. Embedded applications were developed to replace the vacuum tube RATT decoders and comparators in use at that time. These were the first terminal node controllers (TNC) first for RATT then packet, AMTOR, PACTOR, and the multi-mode TNC (PK-232 & Kam). Amateur radio and MARS arrived into the digital era. All microprocessors/ microcontrollers are clocked (timed) by a crystal controlled oscillator which step the MCU (micro controller unit) through the instruction set when performing the programmed operations. This feature permits precision timing for the operations (A to D, D to A, FSK, PSK, DSP, etc).

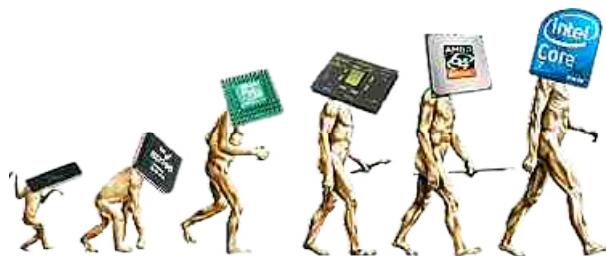
During the past fifteen years there has been a large number of articles in the amateur publications presenting SDR both RX and RX/TX units and add-ons for the station using DDS oscillators, vhf crystal oscillators w/ programmable dividers, programmable keyers, and codecs which incorporate embedded MCUs with and without RISC (reduced instruction set controller). Microchip's series of PICs including the Picaxe w/ BASIC interpreter, Texas Instrument ARM chips, and the Arduino family chips are examples of the breadth of chips available to the tinkerer.

By now you, the reader, is asking "Why all this history??" Well in the last few weeks fellow amateur – N2CKH (MARS - NNNØWWL) has been working diligently in providing a software modem application for PCALC, MARS-ALE and M110A, and has commenced work on an embedded MCU modem for these protocols to be based rather on the ARM or ATOM chips. This modem is expected to be available to the MARS members at reasonable cost hopefully in kit or semi-kit form. This announcement has garnered significant enthusiasm among the members. This station acquired a Raspberry pi (ARM) unit for experimentation and learning. The ARM units require a facility with LINUX operating system and the command line programming language. The ATOM chips are Intel and the WES development package can be used to develop this modem. For this station this has meant a review and relearning the quirks related to the whole programming scenario.

As I was gathering the reference materials, chip specifications, and programming language instructions (Python), I thought that yes I had a lot of embedded MCUs in the radio shack and PIC development boards and had built a number of these add-ons and had also programmed a few at the machine level. But what about outside of the station inside my home, was there evidence of MCU invasion? Absolutely! I have been able to identify at least twenty-six (26) embedded microprocessors/ microcontrollers. Obviously there is one in each of the two computers, one in each of the two printers, one in each of the three televisions, one in each of the three cable boxes, one in the DVD/VCR recorder, one in the portable DVD player, one in the digital photo display, one in the digital camera, one in the e-book reader, one in the tablet, five in the land line wireless telephone system, one each of two cell phones, one in the new washing machine, one in the refrigerator, one in the microwave oven, four in our digital hearing aids, and at least two in our two automobiles. Reflecting on my surroundings, I am beginning to believe that I am embedded in microcontrollers. We are definitely surrounded and we should have some understanding of how they work just to allay some of the frustration when the "new and improved" device does not perform to our expectations. Try counting the number of the hidden devices in your own home.

All have a good day as I get back to trying to write some timing loops in Python.

DE K2ZEL, Bill



Sent 2/28/2015



Meetings Location
Collier County Emergency Management
8075 Lely Cultural Parkway
Naples, FL 34113
Forth Thursday of each month at 2:00 pm
This month's meeting is March 26, 2015
Nets every Thursday at 8:00 pm on 146.670 -600 offset, 136.5 tone
Digitall practice net after voice until 10:00 pm

Topics of Interest

CERT SET exercise is set for March 21, 2015. The site is located near the end of Nursery Lane North of Immokalee Road and one mile West of Collier Blvd. We will provide backup radio communication for this event. This is a great time to practice our skills and help the various CERT Teams with their communication needs. We will assess our strength and weakness at our regular meeting.

Saturday, March 7, 2015 was the Digitally Schooled Sessions at the American Red Cross. Twelve participants joined the discussion topics of Naming Conventions, Macro Mania, and Form Message. FLdigi with FLmsg is the software of choice for digital emergency communications for our group. We also hold a repeater voice net weekly on Thursday at 8:00pm and after the voice net we have a digital net which runs until 10:00 pm. We also plan another session in May.

Our County is rather large and we plan to hold a special communications exercise that will test our ability to contact each other near the four corners of Collier County.

Thank You

**MARK HARMS
AC4ZM AEC**

North Collier County C.E.R.T. 2015 Annual Exercise

All Amateur Ham operators are invited to attend the following March exercise.

Please let me know if you plan to attend:

AC4ZM	Mark
PH	239-331-9616
e-Mail	ac4zm@hotmail.com

The C.E.R.T. simulated emergency exercise is scheduled on March 21, 2015 at 8:30 am. The site is located near the end of Nursery Lane which is a side street North of Immokalee Road and one mile West of Collier Blvd. We will provide backup radio communication for this event. This is a great time to practice our skills and help the various CERT Teams with communication needs during their emergency exercise.

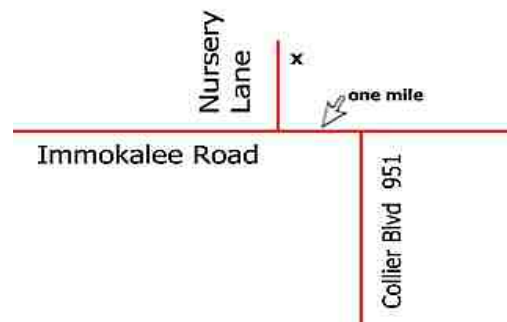
2015 Annual Exercise

Collier County CERT
810 Nursery Lane
Naples, FL 34109



Collier County
A.R.E.S.

Saturday
Mar. 21, 2015



Arrive by 8:30 AM and Start at 9:00 AM

Bring a HT Radio

OBJECTIVES

This is a four (4) hour functional exercise at 810 Nursery Lane. There will be on site Incident Management using the Incident Command System (ICS). While observing scene safety CERT Teams will conduct search and rescue procedures, also administer first aid and triage for the victims. All teams will need to effectively communicate operational information.

SCENARIO

A school bus has reportedly overturned on S.R. 846 following a collision with a large truck. Multiple victims can be heard near the crash site, smoke and fire can be seen from the front half of the bus. Several victims are walking wounded, and have evacuated into the surrounding forest areas. A set of high voltage power lines on the utility pole are creating an additional hazard.



Amateur Radio Emergency Service®

ARES® Registration Form

Name:	
Call Sign:	
Mailing Address:	
City, State, ZIP code:	
e-mail address(es):	
Home phone number:	
Work phone number:	
Cell phone number:	
License Class:	

Check bands and modes that you can operate:

MODE	HF	6 meters	2 meters	222 MHz	440 MHz	Others	
SSB							
CW							
FM							
DATA							
PACKET							
Other modes (specify below)							
Mobile Operation							

Can your home station be operated without commercial power? Yes [] No []

Signature _____ Date _____

Contact ARES® and ARRL Section Leaders in your area: www.arrl.org/sections/.

Learn about ARRL-sponsored Amateur Radio Emergency Communications Courses:

www.arrl.org/online-course-catalog

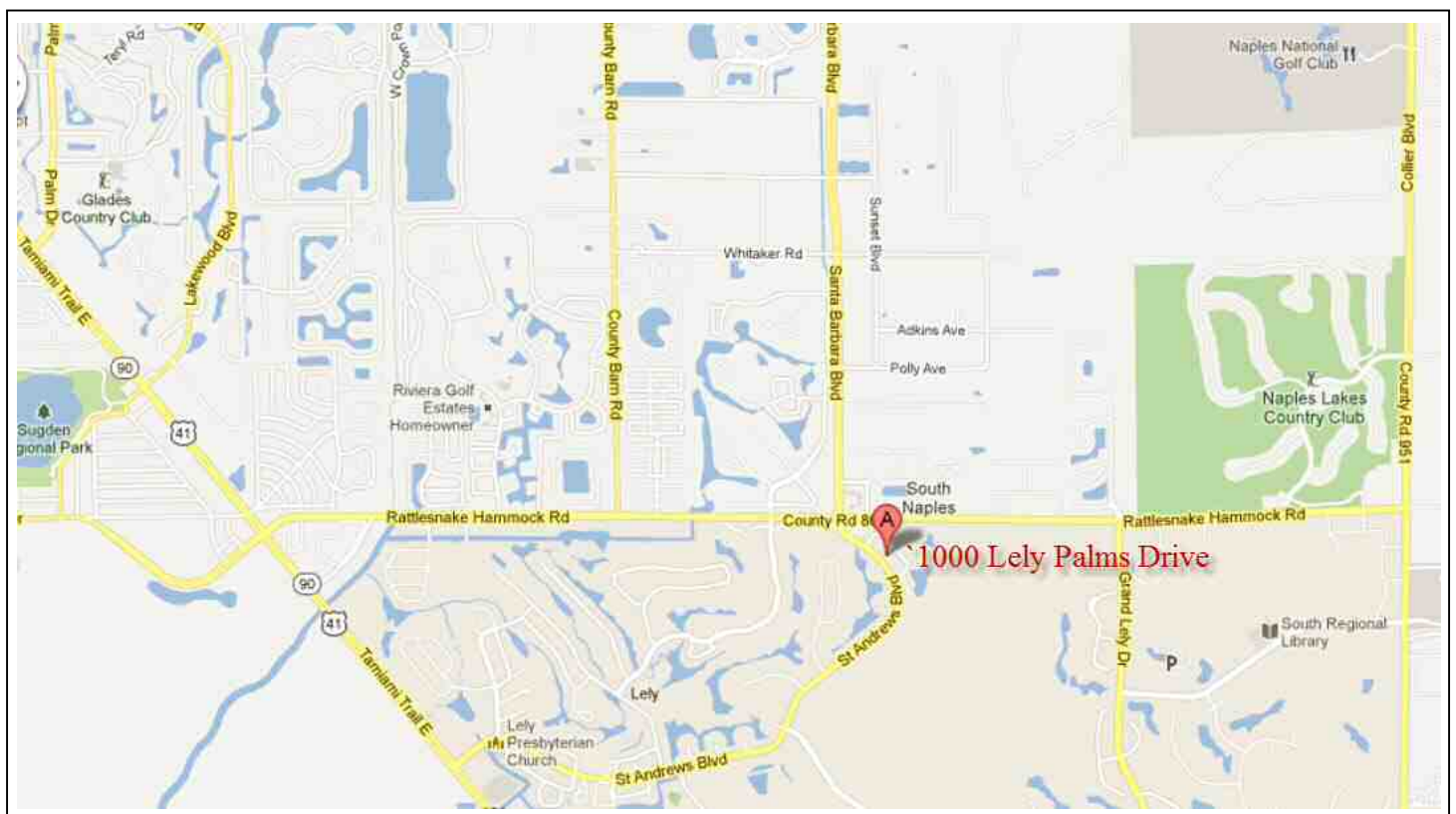


Royal Palm Chapter 152 meets every second Thursday of the month

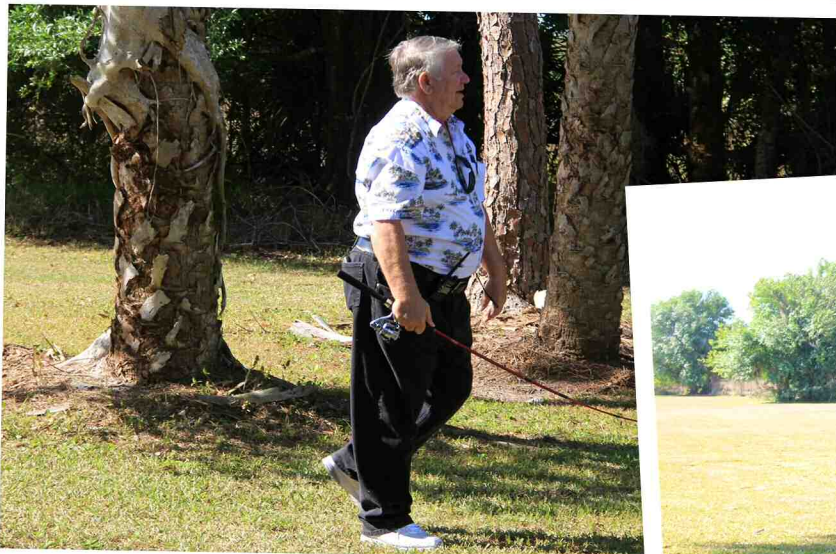
at the Lely Palms Manor, Next Luncheon Meeting: April 9th at 12:15 pm

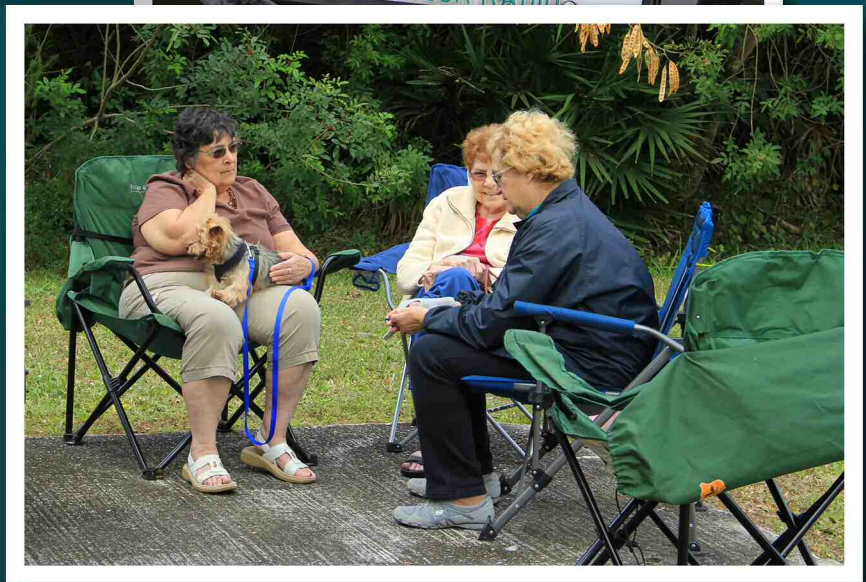
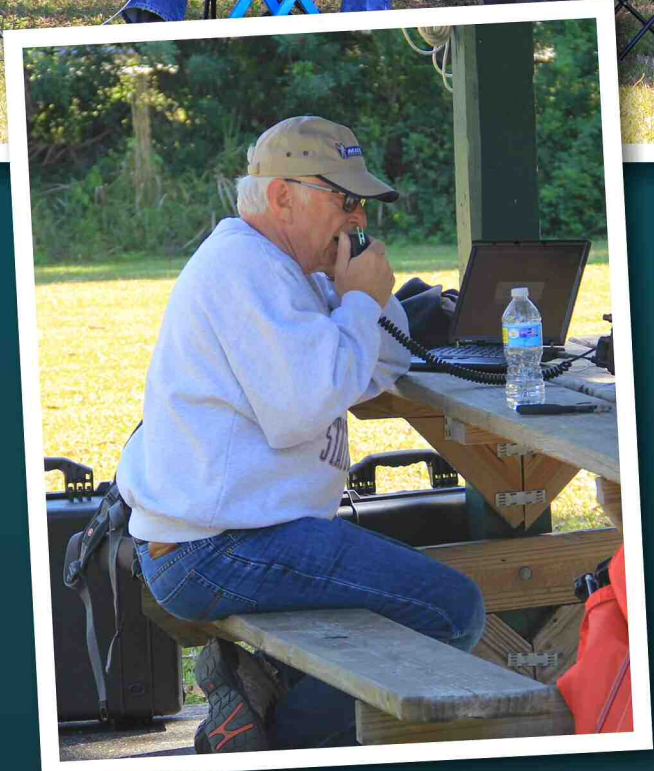
1000 Lely Palms Blvd.

Naples, FL 34114











**AMATEUR RADIO ASSOCIATION
OF SOUTHWEST FLORIDA, INC.**

MEMBERSHIP APPLICATION

I hereby petition the officers and members of the AMATEUR RADIO ASSOCIATION OF SOUTHWEST FLORIDA, INC. for membership. I attest that I hold a current FCC issued Amateur Radio License, and that I will follow legal procedures and protocol, and conduct myself in a manner that will further Amateur Radio.

NAME: _____ **CALL:** _____

ADDRESS: _____

CITY: _____ **STATE:** _____ **ZIP:** _____

PHONE: _____ **EMAIL:** _____

LICENSE CLASS: _____ **ARRL MEMBER:** ☐ YES ☐ NO

HAVE YOU EVER PREVIOUSLY BEEN A MEMBER OF ARASWF ☐ NO ☐ YES - Year _____

SPOUSE'S NAME: _____

SPOUSE'S CALL (If Applicable): _____ **SPOUSE'S LICENSE CLASS:** _____

OUT OF AREA ADDRESS (If Applicable): _____

OUT OF AREA PHONE (If Applicable): _____

This Application must be filed prior to the Membership Business Meeting at which time action will be taken. It is not mandatory that the applicant be in attendance.

The Membership Business Meetings are held the fourth Tuesday of every month at 7:00 PM (except June, July, August and December) at the American Red Cross Building at 2610 Northbrooke Plaza Drive, Naples, Florida.

The ARASWF Newsletter is distributed monthly by e-mail prior to the monthly Membership Business Meeting and contains meeting dates, location and other information, and will be sent to the e-mail address indicated on this Application. If you do not have an e-mail address, the please notify us and request that the Newsletter be sent to you via U.S. Mail.

Please mail this Application with a copy of your Amateur Radio License and a check or money order in the amount of \$25.00 (annual membership dues), to the ARASWF at the address below. Paid membership is valid for one calendar year. If a new member's Application is dated after July 1st, the annual membership dues are one-half the annual dues amount, and a check or money order in the amount of \$12.50 should accompany this application.

Please make checks or money orders payable to "Amateur Radio Assn. of Southwest Florida", or to "ARASWF".

**Amateur Radio Assn. of Southwest Florida
P.O. Box 111604
Naples, FL 34108**

Club Information

Next Meeting Time: March 24th @ 7:00PM

Meeting Location:
American Red Cross
2610 Northbrooke Plaza Drive
Naples, FL

Club Repeaters:

- ARASWF FM - WB2QLP 146.670 mHz (-600 kHz) PL 136.5 HZ
- ARASWF D-Star – AA4PP 145.490 mHz (-600 kHz)/441.5 mHz (5.0kHz)
- Collier EOC – WB2WPA 147.030 mHz (+600 kHz)

2015 Club Officers Elect:

President: Uli Altvater – AG0X@araswf.org
Vice President: Eric Gissendaner – KF4IXA@gmail.com
Secretary/Treasurer: Ken Bills – W9KB@araswf.org
Director: Dave Ducett – WB8VQU@araswf.org
Director: Mark Harms – AC4ZM@araswf.org
Director: Larry Kielasa – KC8JCB@araswf.org
Director: Gary Lee – K8YMN@araswf.org
Newsletter Editor: Ken Bills – W9KB@araswf.org
Webmaster: Eric Gissendaner – KF4IXA@araswf.org

Club Website:

<http://www.araswf.org>

Visit
the



**Amateur Radio Association
of Southwest Florida, Inc.**

Web Site

www.araswf.org