



ARASWF

Newsletter



Vol. MMXVII No. 4 - The Journal of the Amateur Radio Association of Southwest Florida
April 22, 2017

In This Issue:

- Nickels & Dimes
- April Board Meeting Minutes (none recorded, no quorum)
- March Membership Meeting Minutes
- Upcoming Contest Calendar
-

The next Club Meeting will be held April 25th at 7:00pm
at the Red Cross - 2610 Northbrooke Plaza Drive - Naples, FL

Nickels & Dimes

I felt like a one-armed juggler this past month... and a few balls may have hit the deck. My personal travel schedule this month presented a few challenges and if you were hit in the front row, please throw the ball back into play and remember – It's take a team effort to win!

Dr. Al – KP4AQI has migrated north, leaving us a more educated about antenna theory and design advancements... Thanks Dr. Al, we look forward to your return next season!

This month, in his footsteps, we have another special guest from up north, Ray Conrad – NM2O scheduled for Tuesday night's meeting presentation. Ray has visited our Club on a few occasions to help with Field Day and the Florida QSO Party. Next Tuesday, he will share his trip experience to the Curacao contest station PJ2T. Ray participated in the 2016 CQ Worldwide SSB Contest and the PJ2T team won first place in the multi-op, multi-transmitter category with 29,028,000 points (DK3DM, DL8OBQ, K2GA, K8PGJ, PA1CC, N4RV, NM2O, VE3CX, W0CG, W3ACO).

Ray should certainly be able to give us a few tips to improve our rate at Field Day this year.

Club Activity Updates:

The first of the month, Mark – AC4ZM lead a team out to Everglades City to research the annual Everglades Bicycle ride. Next year, he plans to organize and staff all of the water stops (mirroring the Naples Daily News ½ Marathon event).

Also, this past month Larry – N4LAK hosted a social event at Veteran's Park on April 8th. He had good attendance and great weather. These type of 'flash mob' events may become a more regular occurrence if we can locate a lower cost venue. Stay tuned for more details.

While the snowbirds may be heading north for the season, the local VHF nets (146.670 MHz) are still active on Wednesday and Thursday evenings at 8:00pm. Check-ins are always welcome!

The big event this month is the Florida QSO Party scheduled for the last weekend in April. This year we will operate from the Red Cross from noon on Saturday, April 28 until 10pm, resting overnight, then starting the following morning at 8am until 6pm Sunday evening. All members are welcome to stop by and either man a station or help with setup and tear down.

This is a good practice for Field Day which is just around the corner. Larry – N4LAK will have a few words further to share about Field Day at Tuesday's meeting.

That's wraps up our activities this month. Unfortunately, the only thing we missed were the normal April showers, which help spread the fires still burning in the Estate's area.

We hope all our members are safe, and pray for rain and the safety of the affected residents.

Very 73,
Ken-W9KB

Amateur Radio Association of Southwest Florida

Regular Membership Meeting held at the Naples American Red Cross.
Tuesday, March 28, 2017

Officers and	Uli Altvater, AG0X – President
Directors present:	Frank Halas – W4RBW -Vice President
	Larry Kiesala, N4LAK - Treasurer
	Ken Bills, W9KB – Secretary
	Mark Harms, AC4ZM – Director
	Craig Henning, NC2H – Director
	Gary Lee, K8YMN – Director
	Chris Taylor, KM4UJI - Director

Absent: None

Meeting called to order: Uli-AG0X welcomed the members and guests and called the meeting to order, followed by the Pledge of Allegiance.

Introduction: All attendees were introduced by name and call sign. Thirty-seven members were present and three guests.

Treasurer's Report: Larry-N4LAK reported that Club checking balance was \$4,966.17 including the Club PayPal balance. Expenses for the month included: Oil Well Food \$43.60, Antenna Trailer Tire \$104.94, and the Veteran's Park Rental Fee \$106. There were \$100 dues revenue collected during meeting not included in the total. (Pushing the actual total above \$5,000!)

Old Business: Uli-AG0X reported that Jim Carrender-K3AVR and he relocated a Macro Island Radio Club (MIRC) their 146.850 MHZ repeater to the County Barn site. This new Naples repeater is an ICOM NXDN (Digital) and FM (141.3 HZ PL) type. Coverage is excellent throughout the area, given the height of the antenna.

Craig-NC2H provided an update of the website changes. New this month is a app which features a scrolling line at the top of the homepage with hyperlinks to the latest p, making it easier to navigate to the most current information.

Mark-AC4ZM and a group of ARES members visited a park adjacent the red cross special needs shelter and conducted some propagation tests back to both the Club 146.670 MHZ FM repeater and the 444.9875 MHZ DMR repeater. The DMR repeater was opened with a HT and external mag mount antenna, whereas the FM repeater required a more directional Yagi.

The ARES next test trip will be May 7th to test simplex communications back to the Red Cross.

Mark-AC4ZM reported that the EmComm Net meets on the air every Thursday at 8pm (146.670MHZ). The next meeting April 11th 7pm.

Mark also reported that no VE candidates tested this month.

New Business:

Larry-N4LAK reported that he has the Veteran's Park Pavilion reserved for April 8th for the next social outing. This will be a "bring your own food & drink" outing to share stories and test the local repeaters. Details, including a map, were included in last month's Newsletter.

Ken-W9KB invited members to participate in this year's Florida QSO Party. It will be held April 28th and April 29th at the Red Cross. Check the Newsletter for the latest information.

Uli-AG0X and Criag-NC2H are planning a Collinear Antenna Building Project Workshop in mid-March timeframe. Materials can be ordered on the website through March 23th. Time and place will be sent out in an email blast.

Uli-AG0X described a small business opportunity that might interest some enterprising member. A former ham contacted the Club regarding a garage full of new Xcelite tools, soldering iron stations, and other assorted pieces of equipment. He would like \$400 for the lot. Craig-NC2H who also visited the estate suggested it might easily be worth \$2,000. Contact Uli or Craig if you might be interested.

Uli-AG0X will present at the new meeting April 25th DMR-102, a follow-up to the recent DMR-101. An advanced DMR workshop is scheduled for May 13th at the Red Cross. Details will be available in next month's Newsletter.

Social Break:

50/50 Raffle was won by Ken-W9KB (\$48) who donated the windfall back to the Club.

Presentation: Classical Modulations: Zero Bandwidth? – Dr. Al Torres, KP4AQI gave a very interesting presentation describing the basics of typical modulations used historically by amateurs over the past fifty years. He then moved forward, covering modern digital modulations used by the telecom and wireless industries and outlined a new technique to *suppress* the associated sidebands to the point that modulated information may be carried over a bandwidth of a few Hertz. Dr. Al's presentation will be available on the website, along with all his previous topics.

Dr. Al will be leaving for his summer home in Dayton. We wish him and his XYL safe travels north and look forward to his return next season. Thank you for another great lecture series this season!

Adjourn: The meeting adjourned at 8:50pm.

Respectfully submitted,
Ken-W9KB, Secretary

Contest Calendar

April 2017

+ SP DX RTTY Contest	1200Z, Apr 22 to 1200Z, Apr 23
+ SKCC Sprint	0000Z-0200Z, Apr 26
+ 10-10 Int. Spring Contest, Digital	0001Z, Apr 29 to 2359Z, Apr 30
+ Helvetia Contest	1300Z, Apr 29 to 1259Z, Apr 30
+ Florida QSO Party	1600Z, Apr 29 to 2159Z, Apr 30

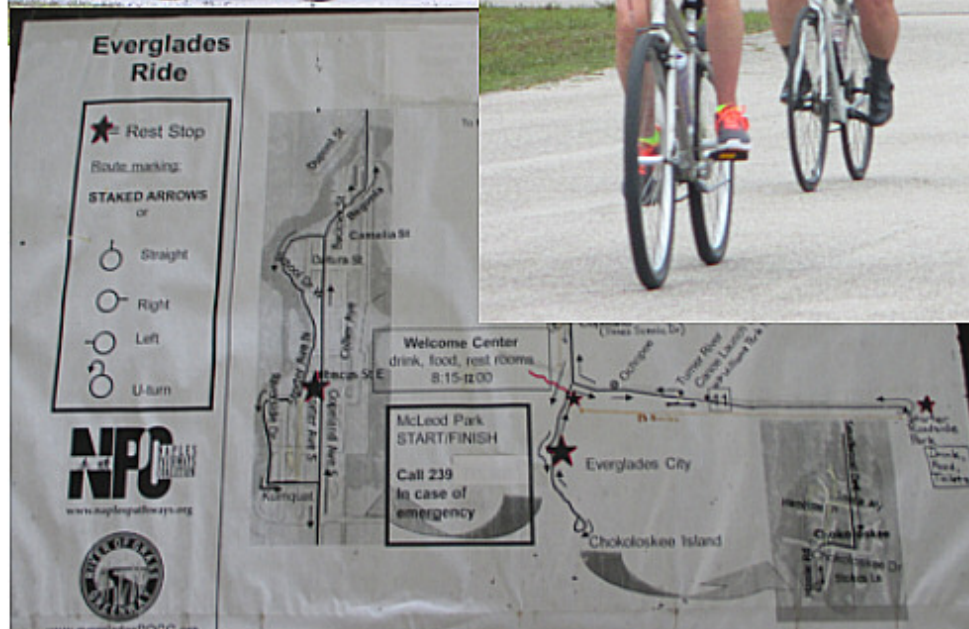
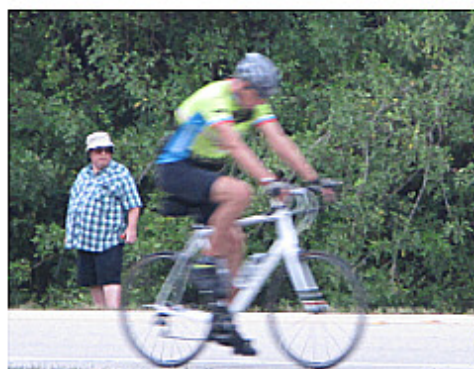
May 2017

+ AGCW QRP/QRP Party	1300Z-1900Z, May 1
+ 10-10 Int. Spring Contest, CW	0001Z, May 6 to 2359Z, May 7
+ ARI International DX Contest	1200Z, May 6 to 1159Z, May 7
+ 7th Call Area QSO Party	1300Z, May 6 to 0700Z, May 7
+ Indiana QSO Party	1600Z, May 6 to 0400Z, May 7
+ Delaware QSO Party	1700Z, May 6 to 2359Z, May 7
+ New England QSO Party	2000Z, May 6 to 2400Z, May 7
+ CQ-M International DX Contest	1200Z, May 13 to 1159Z, May 14
+ SKCC Weekend Sprintathon	1200Z, May 13 to 2359Z, May 14
+ VOLTA WW RTTY Contest	1200Z, May 13 to 1200Z, May 14
+ FISTS Spring Unlimited Sprint	1700Z-2100Z, May 13
+ His Maj. King of Spain Contest, CW	1200Z, May 20 to 1200Z, May 21
+ Baltic Contest	2100Z, May 20 to 0200Z, May 21
+ Run for the Bacon QRP Contest	0100Z-0300Z, May 22
+ SKCC Sprint	0000Z-0200Z, May 24
+ CQ WW WPX Contest, CW	0000Z, May 27 to 2400Z, May 28



FRIENDS of the RIVER OF GRASS GREENWAY

FROGG's Tenth Annual Everglades Bike Ride



The morning of April second started out with fog for the trip to the Everglades City McLeod Park where the 10th Annual Everglades Bike Ride started. Chris Taylor KM4UJI operated his radio from this location. Mark Harms AC4ZM and Rich Seivert K4AOR operated from the intersection of 29 and US 41. Johnny Sparks W4PYZ set up his equipment at the Copeland site.

We feed the mosquitoes while setting up antennas and talked to some of the FROGG volunteers. There was three separate bike ride distances (16, 27, and 62 mi) and starting times beginning at 8 am. We relayed group start times, check point times, and group counts using the 146.400 simplex frequency with our 12 volt battery powered two meter go kits.

Comm tests to the 146.820, 146.670, 146.850, 147.030, and the 444.950 SARnet repeaters were made with varying success. The DMR repeater was not reachable, but we did use TAC 311 digital in simplex mode from check point to check point. We bugged out about 1 pm and had lunch in a local restaurant to recount our logs and remissness the fun and excitement. This special event could use more radio operators at different locations.



Everglades City

Florida QSO Party 2017 – April 29 & April 30 (2017)

We're having a party, and you're invited! Be sure to mark your calendar and join in the fun of the next Florida QSO Party. Visit the other pages on this Web site for rules, results, records, and more information. This next Florida QSO Party takes place on April 29 & April 30, 2017. Get ready now for the best state QSO party in the country.

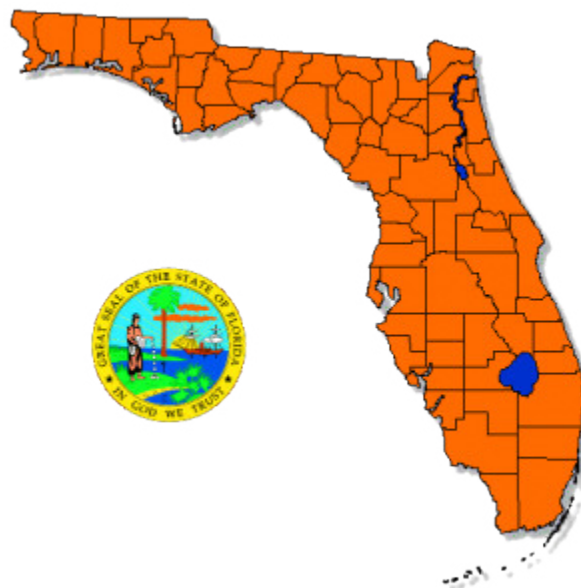
Since the re-introduction of the Florida QSO Party to the contest scene in 1998, the Florida QSO Party has become one of the fastest growing and most popular State QSO Parties around today. This is due, in part, to the tremendous effort by the mobile teams to activate as many counties as they can in order to allow those participating from out-of-state, to achieve a county "Sweep" (working all 67 Florida Counties). Florida stations operating from home are also valuable, since that increases the chances that stations will work all counties!

Regardless if you are a serious or casual participant ... from Florida, or from outside of Florida ... the Florida QSO Party was designed to be a FUN operating event. Why not give it a try?

This year's Spelling Bee: **FLORIDA SUN**. Note: You must work one letter from each word to qualify for any of the FQP certificates.

A reminder for Home stations (both in and outside Florida), please do not call CQ or "run" stations in the "Mobile window". This window is for mobile stations only. Home stations operate above or below the "Mobile window". Frequencies to avoid, are:

CW 7.025-7.035, 14.040-14.050, 21.040-21.050, 28.040-28.050 MHZ



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If you have any news or articles to post, please forward to the Editor.

QSL?

How it All Started

Late one night back in the '70s, an eight-year-old boy living in a small town in south Mississippi sat in his bed hiding under the covers listening to an old transistor radio that his great-grandmother had given to him. While tuning between stations he picked up a program that was being broadcast from Cuba. It was the first time he had heard a foreign accent. That experience played in the back of his mind for the rest of his life, surfacing now and again as a passing interest in CB radios, police scanners, and shortwave receivers until he was in his forties.

In 2010, that little boy formed Troop 721 of Palm Beach Gardens, Florida. It was a high adventure troop that took monthly scouting adventures backpacking, canoeing and kayaking the remote areas of South Florida. One of the concerns the adult leadership had with these outings to remote areas, was the lack of cell phone coverage in the event of an emergency. To solve this dilemma, Scoutmaster Chris Anderson, KK4ENJ, finally turned his lifelong radio interest into a serious hobby and earned his Technician class license, along with the rest of his family.

Two months later he took his gear camping with the troop and introduced them to Amateur Radio by allowing the boys to talk to another radio operator in England using EchoLink, a software application which connects repeaters throughout the world by the Internet. (Repeaters are receiver/transmitter pairs that operate on coordinated frequencies and are typically installed at a commercial facility that permits high-gain, omnidirectional antennas mounted at heights not usually feasible or legally possible at a residence.)

The boys were hooked and started talking about getting their licenses. "I thought it was really cool that you could talk to anyone in the world who has a radio and a license" said First Class Scout Thomas Wilson, KK4HPC. For some of the adult leaders, it had also been a lifelong interest, as Assistant Scoutmaster Mike Wilson, KK4HPB, said, "It's something that I always wanted to learn but never had the resources." For others, it is another hobby that they can participate in with their sons.

A Growing Group

In March of 2012, eight kids and eight adults enrolled in a class sponsored by the Jupiter Tequesta Radio Group (JTRG) and earned their Technician class licenses. JTRG holds three class sessions per year — two Technician and one General. Since 2001, they have helped 425 individuals pass their Technician license exam. The most exciting aspect of these classes is when young hams can be brought into the hobby. "The introduction of Amateur Radio to the young men of Troop 721 has been the largest presence of youth in any of our classes. In addition to having an interest in Amateur Radio, they had a genuine need to communicate. No surprise, but where

there's a need, there's usually a will and we presented the way," commented JTRG President Kevin Jackson, W4JKJ.

At the same time, the scoutmaster upgraded his license to General class, trying to keep a step ahead of the kids to better help and train them. They quickly familiarized themselves with the radios, talking to each other and participating in the club's ragchew nets, holding special meetings, and building their own antennas. By May, four boys and three more adults had upgraded their license to General class. The boys even took their radios with them to summer camp in Tennessee, where they learned just how much more reliable the radios could be than cell phones in some situations.

The camp was in the Tennessee mountains, which made the cell phone coverage spotty. However, the scouts were able to talk to Mr. Anderson, who was in Florida, with their 2 meter handhelds through a local EchoLink repeater with no problems. "The ability to communicate when out in the woods or when the troop is split into two groups" is what Assistant Scoutmaster Hal Avallone, KK4HPJ, enjoys most about the hobby.

This point was well proven on the troop's camping trip in February 2013 when the troop split into two groups. The trip had originally been planned as a backpacking trip, but after completing a 20-mile hike in January, several of the boys decided they just wanted to "car camp." The rest of the group still wanted to backpack. Both the adult and senior leadership decided it was not a problem. One group completed a 10-mile hiking trip while staying in touch with the rest of the troop in base camp using their handheld radios operating on simplex. Incoming Scoutmaster Ron Totz commented on the idea, "It definitely gives us the ability to work with both groups of scouts, the high adventure group and those who wish to just go and camp for the weekend."

Now that the boys have some experience operating the radios, they are looking to set a direction for the troop. They have permission from JTRG to use the repeater and run their own weekly ragchew net. By using a repeater, communications are supported over greater distances than normally possible for the same frequency.

Even with all of these activities, the boy's long-term plans are much more community service oriented. The boys have been approached to provide communications for some local events such as a Christmas parade, marathon races, and a trail rider's club horseback competition. In August, Troop 721 had the opportunity to put their communications training and licensing to practical use when JTRG participated in a field event called, the International Lighthouse and Lightship Weekend (ILLW). Portable transceivers and temporary high frequency antennas were erected on-site at the Jupiter Lighthouse to provide international communications to hams everywhere as they reached out to lighthouses around the globe.

Both JTRG and the troop worked together again in October 2012 for the Boy Scout Jamboree on the Air (JOTA) as part of the troop's recruiting plan. JOTA is a worldwide event where scouts get on the air and contact each other through Amateur Radio.

Unlike the typical ham radio competitions, where contacts are made, recorded, and you move on to the next contact; the scouts are encouraged to actually talk to the other scouts.

JTRG helped the troop by setting up operating stations and antennas for use during the 2-day weekend event. With the help from the club, the boys were able to make contacts with scouts in Australia and Japan as well as many domestic contacts including the Boy Scouts of America headquarters. They also mentored the scouts on site preparation and educated them on the principles of antenna construction by building working antennas that the boys could take home. The event was a success for both groups and they are currently putting plans in place for JOTA 2014.

Looking Ahead

In July 2012, the troop participated in a Palm Beach County Amateur Radio Emergency Services (ARES®) exercise, "Operation Hard Luck II." They got to see how different agencies would work together after a natural disaster and were allowed to discuss different scenarios presented by the training program, all of this reinforcing and expanding their emergency preparedness merit badge training.

As a result of participation in this exercise, the troop now has nine ARES members, as well as 18 SKYWARN trained operators who assist the National Weather Service by reporting severe weather events happening in their neighborhoods. These boys are all discussing the possibility of forming a Community Emergency Response Team (CERT). "The ability to communicate and help conduct search and rescue" is how Scout Tyler Callaghan, KK4MAT, sees the troop using their skills in the future. In May he got his chance to experience public service communications when he and several other boys and leaders from the troop volunteered to help several local CERT teams conduct a search and rescue training session by providing mobile radio communications.

As the troop moves forward, it will investigate how to turn these ideas into reality. The scouts are realizing that there are many factors to be taken into consideration, such as, who should be eligible to participate or what criteria, if any, should be established. Eagle Scout William Anderson, KK4ENL, states, "There is a certain maturity level that is needed to do some of these things, so I think scouts should be at least first class or higher to be even considered for the amateur licensing." The troop is planning on earning the Search and Rescue Merit Badge during the 2013-2014 scouting year, if not sooner.

The boys are also evaluating equipment needs. Two radios have already been donated to the troop but they still need antennas and power systems, and they would like to have a good HF radio. Star Scout Mason Turner is currently learning how to hook up solar panels to battery packs so that the troop's trailer can be used for mobile communications if an emergency should arise. These solar panels would allow the boys to recharge battery systems as well as power the lights inside the trailer while it's

parked in camp. "We should have everything we need in the trailer. I believe we should be able to pull up to a location and set up camp wherever we can park the trailer."

The boys are planning to build what they are calling "go boxes." These are battery systems that will supply power for the radio equipment in locations where standard power is not available. Construction of these boxes involves the boys learning how to solder, and understand basic electronics and power management.

The boys are learning budgetary constraints and priorities as well. Because the troop is only 3 years old, they are still in the process of fundraising for essential gear such as field kitchens, dining flies, lanterns, and other items necessary for a troop to function. While they are waiting for that to happen, they continue to use their 5 W handheld transceivers.

For Troop 721, ham radio has opened up not only new windows to the many different people in the world but also new opportunities to support their communities.

Karen Anderson, KK4ENM, is a middle school medical science and reading teacher and has been an assistant scoutmaster for about 10 years. In addition to teaching and scouting she runs Life's Pilgrims, an adventure blog website with her husband. Karen became involved with ham radio together with her husband and two sons when they all earned their Technician's class licenses 2 years ago. A year later she moved up to General. Karen is a SKYWARN operator and volunteer with the local ARES® groups. She is a member of the Jupiter Tequesta Repeater Group and the Jupiter Lighthouse Radio Group. You can contact Karen at karen@lifespilgrims.com.

Editor's Note:

My gateway into ham radio is not too different than that described in the above story (although mine did pre-date transistors, Echolink, and involved a crystal 'cat's whisker). Perhaps you have a unique story you would like to share with the Club.

Why not take some time and put it to paper, share it with your family and/or our Club?

If you accept this challenge, I would be most happy to help you publish it here in the ARASWF ALERT Newsletter.

73

Ken-W9KB

Article Links Amateur Radio Growth to Emergency Communications

An April 11 [article](#), "Emergency Communications Driving Increase in Amateur Radio Operators" in *Emergency Management* magazine links the growth in Amateur Radio numbers to interest in emergency communications.



"There has been a tremendous amount of interest in emergency preparedness since 9/11 and Katrina, and this is true for the Amateur Radio community as well," ARRL Emergency Preparedness Manager Mike Corey, KI1U, told the publication. "Emergency communications is a gateway into Amateur Radio, and many join our ranks through an interest in being better prepared themselves and as a way to serve their community."

The article cites numbers from ARRL VEC Manager Maria Somma, AB1FM, who notes that 2016 was the third year in a row that the total number of new licenses exceeded 30,000. The article also cites ARRL Colorado Section Manager Jack Ciaccia, WM0G, who agreed with the premise that the uptick in new licenses is due to Amateur Radio's emergency capabilities.

"Interest really peaks after a large-scale event where ham radio has been utilized," Ciaccia said "When regular phone service fails, Amateur Radio operators fill the communications gap with their independent transceivers and battery power backups," said the article, which also discusses the Amateur Radio Emergency Service (ARES).



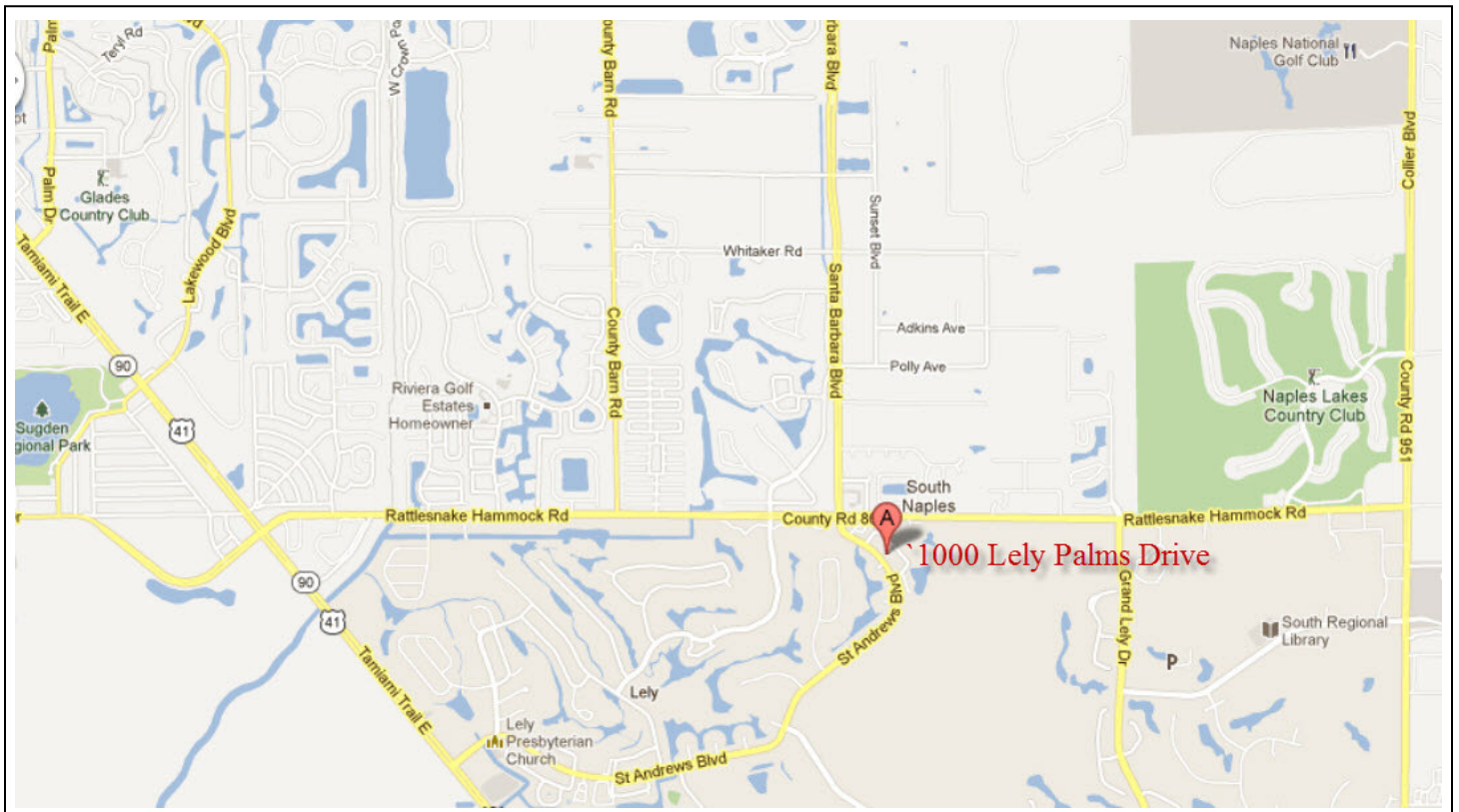


Royal Palm Chapter 152 meets every second Thursday of the month

at the Lely Palms Manor, Next Luncheon Meeting: May 11th 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**



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

Club Information

Next Meeting Time: April 25th @ 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)
- ARASWF D-Star – AB4NP 145.270 MHz (-600kHz)
- ARASWF EmComm – K4YHB 147.030 MHz (+600 kHz)
- ARASWF DMR – AB4NP 444.9875 MHz (+5 MHz)

2017 Club Officers:

President: Uli Altvater – AG0X@araswf.org
Vice President: Frank Halas – W4RBW@araswf.org
Treasurer: Larry Kielasa – N4LAK@araswf.org
Secretary: Ken Bills – W9KB@araswf.org
Director: Mark Harms – AC4ZM@araswf.org
Director: Chris Taylor – KM4UJI@araswf.org
Director: Craig Henning - NC2H@araswf.org
Director: Gary Lee – K8YMN@araswf.org
Newsletter Editor: Larry Kielasa – N4LAK@araswf.org
Webmaster: Craig Henning – NC2H@araswf.org

Club Website:

<http://www.araswf.org>

Visit
the



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

Web Site

www.araswf.org