

# Welcome to Amateur Radio

This Resource Provided By The Fort Myers Amateur Radio Club  
Welcome To The Club, We Are Here To Help!



## Repeater Basics - Remember you can use any Ham Radio Repeater!

**Break** — Once a continuous transmission stretches more than two minute, you can say, "Break", key off and allow the repeater to cycle off. Then Key back up and go again. Most Repeaters Will Cut You Off at 3 Minutes.

**Pair** — the pair of frequencies (input and output) used by a repeater - Our repeaters require a tone to access. This Pair can be programmed into a channel on your radio for use on a repeater. The Repeaters Receive and Transmit Frequency are opposite yours.

**Full Quieting** — a received signal that contains no noise.

**Input Frequency** — the frequency of the repeater's receiver

**Kerchunk** — To Click a repeater, but not say anything - You Should Always Identify when you Transmit.

**Output Frequency** — the frequency of the repeater's transmitter

**Simplex** — a mode of communication in which users transmit and receive on the same frequency - This mode does not use repeaters and requires the users to be relatively close.

**To Start a Conversation On A Repeater** — just key your mic and say your call sig and the last 3 Digits of the Frequency. "This Is XX1XXX.. On the 860 Repeater"

**Transmit Delay** — When using repeaters key your mic and then wait 1 full second before saying anything. This will allow the repeater to fully activate.

**When Calling in on Nets** — Say "This Is" before your call to make sure your call does not get cut off.

## Common Radio Modes - Amateur Radio Operators Use Several Modes to Transmit Voice and Data.

### Amplitude Modulation (AM)

The transceiver produces a carrier wave at the frequency of transmission. Voice is superimposed on the carrier wave and alters its shape by changing the Amplitude or height of the wave. Hence the frequency and wavelength of the carrier do not change with this form of modulation..

### Single-Sideband Modulation (SSB)

Single sideband modulation is widely used in the HF portion, or short wave portion of the radio spectrum for two way radio communication. Single sideband, SSB modulation is basically a derivative of amplitude modulation, AM. By removing some of the components of the ordinary AM signal it is possible to significantly improve its efficiency.

### Frequency Modulation (FM)

The transceiver produces a carrier wave, in the same way as for Amplitude Modulation. In this case, however, voice is added to the carrier so that frequency changes. This, in turn, affects the wavelength of the carrier, but the amplitude remains constant.

## Standard CW Q-Codes / Radio Q-Codes (\*)

You Are Not Required To Use These Codes - But, It Is Good To Learn Them / Primarily Used On HF Bands

QRG	Your exact frequency / tell me my exact frequency
QRL	I am busy / Are you busy? Usually used to see if a frequency is busy.
QRM*	Your transmission is being interfered with
QRN	I am troubled by static / Are you troubled by static?
QRO	Increase power / Shall I increase power?
QRP*	Decrease power / Shall I decrease power?
QRQ	Send faster / Shall I send faster?
QRS	Send more slowly / Shall I send more slowly?
QRT*	Stop sending / Shall I stop sending?
QRU	I have nothing for you. Have you anything for me?
QRV	I am ready. Are you ready?
QRX	I will call you again at _____ hours / will you call me again
QRZ	You are being called / Who is calling me? .
QSB	Your signals are fading. Are my signals fading?
QSK	I can hear you between signal / Can you hear me between your signals
QSL	I am acknowledging receipt. Can you acknowledge receipt
QSO*	I can communicate with ___ direct Can you communicate with ___ ?
QSP	General call preceding a message addressed to all amateurs "CQ ARRL."
QST	I will relay to ___ / Will you relay to _____ ?
QSX	I am listening to ___ on ___ kHz. Will you listen to ___ on ___ kHz?
QSY	Change to transmission on another frequency / Shall I change frequency
QTC	I have ___ messages for you / How many messages have you to send?
QTH	My location is _____. What is your location?

QSL

## WEBSITES TO KNOW

[www.FMARC.Net](http://www.FMARC.Net) - Fort Myers Amateur Radio Club

[www.ARRL.org](http://www.ARRL.org) - ARRL The National Association for Amateur Radio

[www.QRZ.com](http://www.QRZ.com) - Share your contact info, look up other Amateur Stations

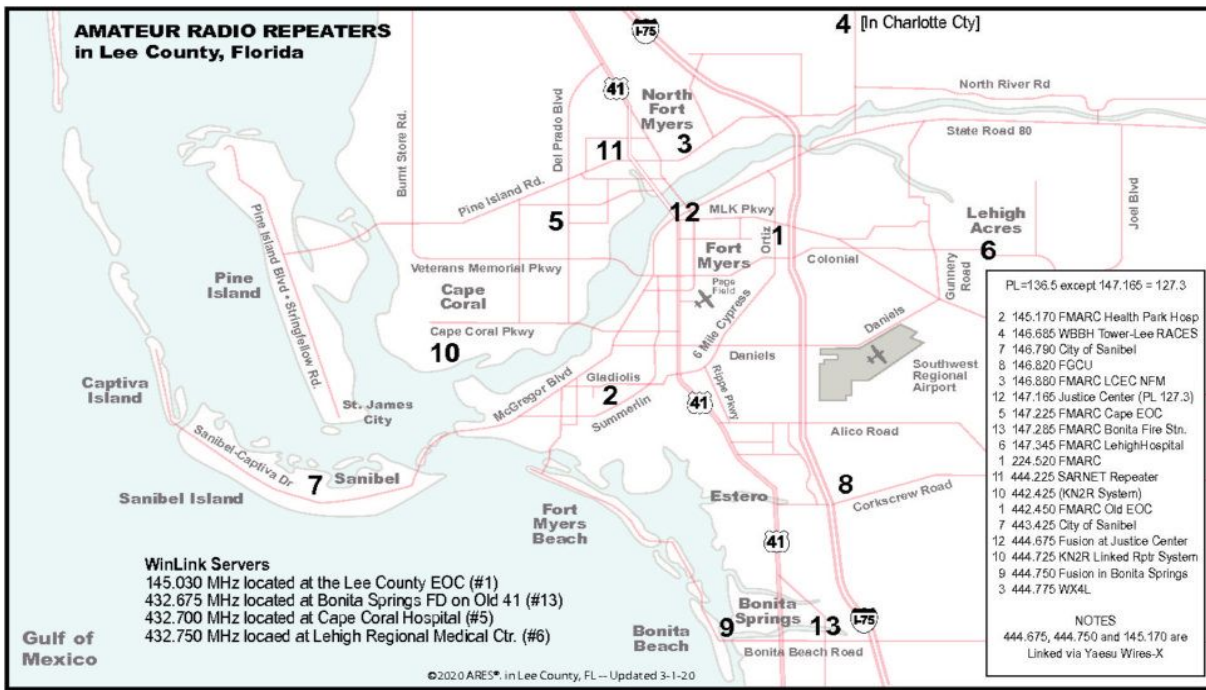
## Standard Phonetic Alphabet & Morse Code

Please Try To Always Use Standard Phonetics

A	Alfa	• —
B	Bravo	— • • •
C	Charlie	— • — •
D	Delta	— • •
E	Echo	•
F	Foxtrot	• • — •
G	Golf	— — •
H	Hotel	• • • •
I	India	• •
J	Juliet	• — — —
K	Kilo	— • —
L	Lima	• — • •
M	Mike	— —
N	November	— •
O	Oscar	— — —
P	Papa	• — — •
Q	Quebec	— — • —
R	Romeo	• — •
S	Sierra	• • •
T	Tango	—
U	Uniform	• • —
V	Victor	• • • —
W	Whiskey	• — —
X	X-Ray	— • • —
Y	Yankee	— • — —
Z	Zulu	— — • •

## Amateur Radio Bands

160 Meters (1.8-2.0 MHz)
80 Meters (3.5-4.0 MHz)
40 Meters (7.0-7.3 MHz)
30 Meters (10.1-10.15 MHz)
20 Meters (14.0-14.35 MHz)
17 Meters (18.068-18.168 MHz)
15 Meters (21.0-21.45 MHz)
12 Meters (24.89-24.99 MHz)
10 Meters (28-29.7 MHz)
6 Meters (50-54 MHz)
2 Meters (144-148 MHz)
1.25 Meters (222-225 MHz)
70 Centimeters (420-450 MHz)
33 Centimeters (902-928 MHz)
23 Centimeters (1240-1300 MHz)



NOTES: The Repeater List in the lower right corner is in "Frequency Order." So, if you know the frequency of the repeater, you can find it's location by referencing the number to the left of the frequency. If you're interested in know which repeaters are located at each location, search the left side of the list to find the "Location Number" you're searching for.

## ARES Standard Frequency List for Lee County

It is a Great Idea to Program Your Radios to the Same Numbers

- 1 147.165+ 127.3 EOC Repeater Justice Center
- 2 146.475 Simplex EOC Area VHF Simplex
- 3 146.820- 136.5 Grn Area Repeater FGCU Tower
- 4 146.580 Simplex Grn Area VHF Simplex
- 5 147.345+ 136.5 Yel Area Repeater Lehigh Med Ctr
- 6 146.460 Simplex Yel Area VHF Simplex
- 7 146.880- 136.5 Blu Area Repeater LCEC
- 8 146.490 Simplex Blu Area VHF Simplex
- 9 147.225+ 136.5 Red Area Repeater
- 10 146.550 Simplex Red Area VHF Simplex
- 12 146.520 Simplex National Calling Frequency
- 14 145.010 Simplex Use for WinLink Peer-to-Peer Comms
- 15 145.030 Simplex VHF WinLink W4LCO-10 New EOC
- 16 145.090 Simplex Use for WinLink Peer-to-Peer Comms
- 17 432.675 Simplex UHF WinLink W4LCO-10 Bonita Springs FD
- 18 432.700 Simplex UHF WinLink W4LCO-10 Cape Coral
- 19 432.750 Simplex UHF WinLink W4LCO-10 Lehigh Med Ctr
- 20 145.170- 136.5 Linked2 Analog & FUSION Health Park Hospital
- 21 145.390- 136.5 K4QCW East Fort Myers
- 22 146.685- 136.5 Lee County RACES WBBH Tower (KF4QWC)
- 23 146.715- 74.4 N2FSU Lehigh Acres
- 24 146.790- 136.5 W4SBL - FUSION4 Sanibel PD
- 25 147.285+ 136.5 W2PAX Bonita Springs FD
- 26 442.450+ 136.5 FMARC Old EOC
- 27 443.425+ 136.5 City of Sanibel Sanibel
- 28 443.450+ D-Star W4LCO New EOC
- 29 444.225+ 136.5 SARNET North Fort Myers
- 30 444.450+ 77.0 WB4FOW East Fort Myers
- 31 444.675+ 136.5 ARES - FUSION2 Justice Center
- 32 444.725+ 136.5 KN2R3 Linked UHF
- 33 444.750+ 136.5 ARES - FUSION2 Bonita Springs
- 34 444.775+ 136.5 WT4T LCEC North FM
- 36 446.000 Simplex National Calling Frequency
- 40 145.250- 136.5 AA4FB\*\* Englewood
- 41 (Also 22) 146.685- 136.5 KF4QWC WBBH Tower
- 42 146.745- 136.5 WX4E Punta Gorda
- 43 146.865- 136.5 K8ONV Port Charlotte
- 44 146.925- 136.5 N4FOB Port Charlotte
- 45 147.015+ 136.5 KS4ST Port Charlotte
- 46 147.255+ 136.5 W4DUX5 Port Charlotte
- 50 442.925+ 136.5 W4DUX-DMR Port Charlotte
- 51 444.600+ 82.5 N9OJ Murdock
- 52 444.975+ 136.5 WX4E Punta Gorda



## Radio Nets - You Are Always Welcome To Join In!

### DAILY NETS

>>SWFL Traffic Net (CH22) Monday - Saturday 10am - The SWFTN is the local affiliate of and is sponsored by the American Radio Relay League's National Traffic System. The primary function of the SWFTN is to handle formal Radiogram message traffic as part of the NTS.

### SUNDAY

>> Loggerhead Net 7:30pm 146.790 (-) (136.5) - A Great Rag Chew Sponsored by the City of Sanibel on the VHF Repeater Located on Sanibel Island.

>> Windmill Net 9pm 28.475 USB

Break out the HF Rigs. This is a great opportunity to work with 10 Meter equipment. This Net Operates on a portion of the 10M Band that is Open to Techs.

### MONDAY

>> FMARC Club Meeting On The Air Net - 7pm (CH22) - Join us every week for our club meeting and member check ins. The officers will have reports.

>> FMARC Swappers Net - (CH22) Immediately Following the Meeting on the air. Buy, Sell, Trade, or Swap Amateur Radio Equipment..

>> Newbie Net - (CH03) Immediately Following the Swappers Net Immediately Following the FMARC Swappers Net - A great net for folks to get some no pressure mic time and discuss all things related to the Hobby.

### WEDNESDAY

>> ARES/ALERT 7pm (CH01) Guest Check Ins Welcome - Weekly Net Meeting of the Lee County ALERT Team.

>> 220 Net "The Net With No Name" 7:30pm 224.520MHz (-) No PL - A Rag Chew on a Great Band that is Seldom Used. One of the Only 220 Nets in FL,

>> Yaesu Fusion Technical Net 8pm 444.685 Room 21805 - Digital Radio Equipment is Required to get on this net.

### THURSDAY

>> DMR & D-Star Technical Nets 7pm Check for Night - Digital Radio Equipment is Required to get on these nets.

>> Cape Coral Gabfest 8pm 146.490 (simplex) No PL One of the only Local Simplex Nets. This is a Great Net for testing range and utilizing directional antennas. It's also a Great Discussion.

### FRIDAY

>>SWFL Tech Net 8pm - www.SWFLTech.Net 8pm on CH22 A Hybrid Net with an Internet Component. Old Nets are archived on the website.





# On Air Lingo...

7-3	Best Wishes / Good Luck	7-3 From XX4XXX
Roger	Got It / Agree	Roger That
Copy	Understand	I Copied Your Entire Transmission
QSO (Cue'-soh)	Conversation	I Just Had A Qso With A Guy In Florida
Clear	Good-bye / Off-air	This Is XX4XXX, Clear
Mobile	Traveling	I'm Mobile At The Moment
Dark Side	Repeater Shadow	Sounds Like You're Moving to The Dark Side
Monitor	Listen	This Is XX4XXX Monitoring
Qsy	Change Frequency	I'm Going To Q-s-y Over To The '62
Double	Talk Simultaneously	You Two Doubled With Each Other
Step On	Talk Over	Sorry, I Stepped On You
Ptt	Push-to-talk Button	Press Your Ptt When You're Ready To Speak
Ht / Handy	Handheld Transceiver	My Only Radio Is An HT
Rubber Duck	Short Stock Antenna	I'm Using A Rubber Duck
Stand By	Wait / Pause	This Is XX4XXX Standing By
Net	On-air Gathering	The Net's At 7 Pm
Elmer	Ham Radio Mentor	Daryl Is My Elmer
Final	Concluding Transmission	I'll Be Clear On Your Final
Jump Off	Leave The Radio	I Need To Jump Off Right Now
Kerchunk	Key Up Silently	All I Could Hear Is Somebody Kerchunking
Picket Fence	Fluttery Transmission	You're Starting To Picket Fence
Ragchew	Shooting The Breeze	We're Just Ragchewing At The Moment
Shack	Radio Room	My Shack Is In My Basement
Silent Key / Sk	Passed Away Ham	My Father Is A Silent Key
Frying Bacon	Hissing Background Noise	You Have Frying Bacon In Your Signal
Full-quieting	No Background Noise	You're Full-quieting Into The Repeater
Relay	Pass A Message	Could You Please Relay?
Key Up	Transmit	Key Up When You're Ready To Speak
Unkey	Stop Transmitting	I Heard An Odd Noise When You Unkeyed
Ticket	Ham Radio License	When Did You Get Your Ticket?



# Contact Your Club Officers

Fort Myers Amateur Radio Club

**Club President**  
president@fmarc.net

**Club Vice-President**  
vp@fmarc.net

**Club Secretary**  
secretary@fmarc.net

**Club Treasurer**  
treasurer@fmarc.net

**Past President**  
pastpres@fmarc.net

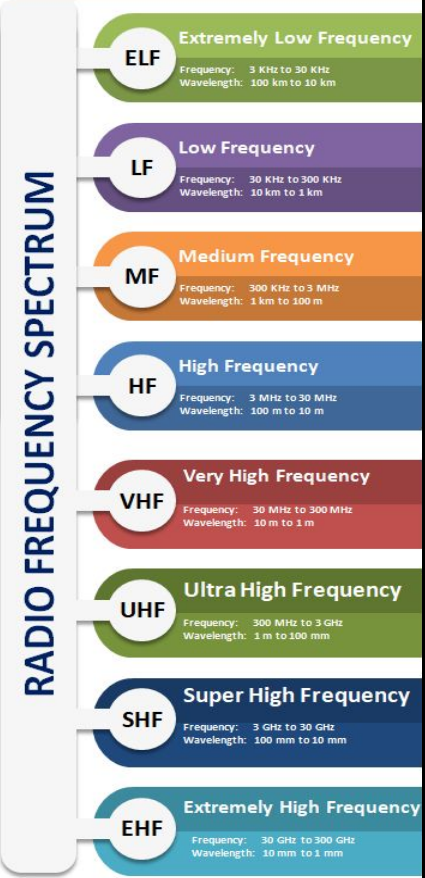
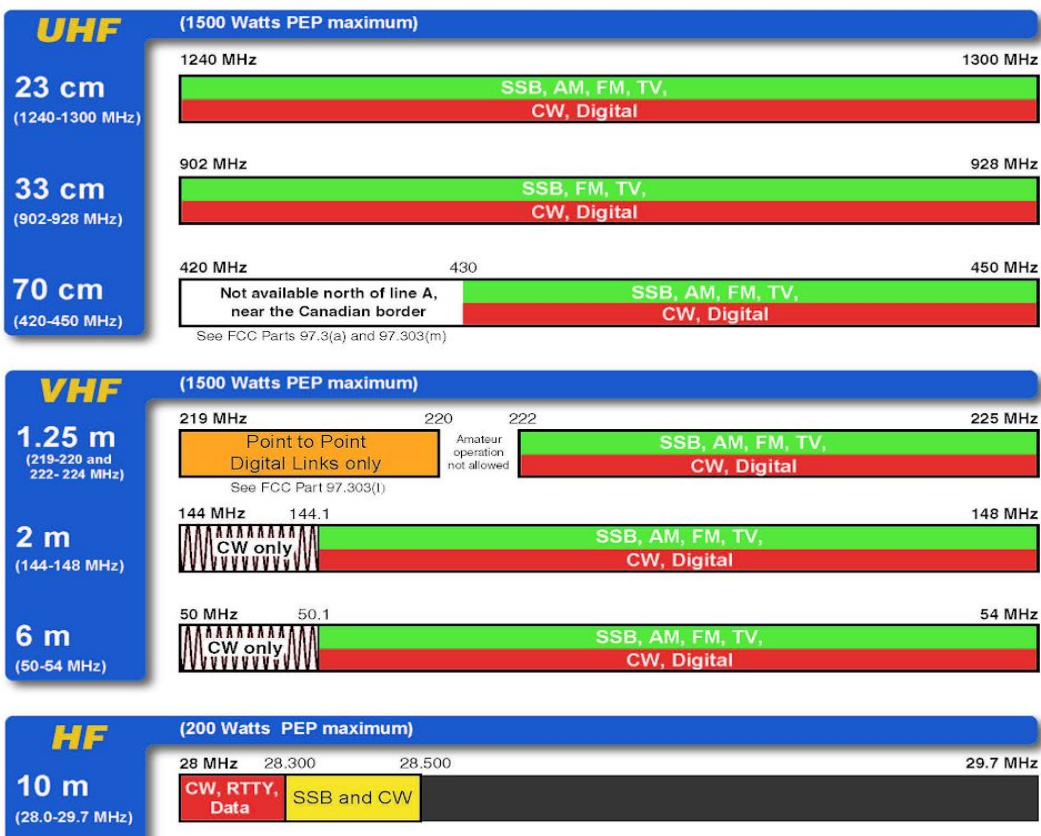
**ARES / ALERT**  
alert@fmarc.net

**Chaplain**  
chaplain@fmarc.net

**Education**  
education@fmarc.net

**Mentor Coordinator**  
mentor\_coord@fmarc.net

# Band Allocation For Amateur Radio Technicians



## 10 Things You Can Do Right Away!

- 1) Check In On Area Nets. Our Club and Neighboring Clubs hold a multitude of Radio Nets designed for you to get some mic time, meet local hams, and learn about the hobby, All Hams are Welcome on All Nets! Don't Be Shy! Make sure not to miss the Club Net and Newbe Nets on Monday Nights starting at 7pm and the SWFL Tech Net on Friday Nights at 8pm.
- 2) Learn to send and receive traffic (Radio Messages) on the Southwest Florida Traffic Net. Tune in on the 146.685 Repeater (Channel 22) every morning except Sunday at 10am. Find out more here: [www.FMARC.net/swftn](http://www.FMARC.net/swftn)
- 3) Join fellow hams at the FMARC Swap Shop every second and last Saturday of the month at 11am. We have lots of ham gear and parts for sale, and many come to sell (TailGate) as well. This is a great place to meet other hams and grab some cheap parts or a great rig. Location: Waterway Park, 5820 Poetry Lane North Fort Myers, FL.
- 4) Join the FMARC Lunch Bunch at Anthony's On The Blvd. 1303 Del Prado Blvd. in Cape Coral every Thursday at 11am. The Lunch Bunch is a wonderful opportunity to meet with fellow Hams, share a meal and camaraderie. Bring a guest! Bring a friend! It's also a great way to introduce individuals to the hobby who may be interested in becoming a ham.
- 5) Check the FMARC Club Calendar and see what is coming up. You are welcome at every event listed. Join Club Members for Field Day Events, Meetups, or Contests.
- 6) Sign up on QRZ.com and put in your Email Address so Hams can find you and get ahold of you. It is also great to update your Bio Page and Pic.
- 7) Get an Email Address with your callsign. XX4XXX@Gmail.com or pick any number of other free sites offering email addresses. This also helps keep all your ham stuff in one place. You can also Join ARRL and they will give you a link through email box XX1XX@ARRL.net.
- 8) Check out Ham Radio Podcasts on any Podcast Search Engine. You can learn a lot while driving to work or taking a shower.
- 9) Download Programming Software, get a cable and learn to program your radio.
- 10) Sign up for Echolink and connect with Hams around the world from your computer.

## So Once I Get Going... Then What.. Well..

- Next you can get your General License and Talk around the world without the Internet or cell phones.
- Learn to Send your voice, text and pictures to unusual places, both near and far.
- Create your own network of ham radio friends and send instant text messages without cell phones.
- Join ARES and Help Your Local Area when Disaster Strikes
- Meet awesome people from all over the U.S. and around the world, on-the-air and in person at ham radio events.
- Then.. Talk through satellites or with astronauts on board the International Space Station.
- Learn how to program all of your own equipment and radios.
- Make and Tune your own antennas. Design Homebrew Creations that really work!
- Put up a tower and check in on nets up to 100 miles away
- Learn how to Send and Receive Messages in Morse Code.
- Be a signal sleuth, "Fox" hunt for hidden radio signals, and with GPS -- GeoFox!
- Investigate the many new combined radio-Internet communication techniques.
- Try a new sport -- Radiosport: Compete on-the-air for awards and fun!
- Send a message around the world using less electricity than a nightlight.
- Become a weather spotter and help your community prepare for weather events.
- Get involved in Scouting programs and participate in worldwide youth radio events.
- Use your radio for community service! Provide communications for an event.
- Take ham radio along when you go hiking or camping. Never be out of contact.
- Learn how radio is used to explore space.
- Use Amateur Radio to control models, robots, or even drones.
- Do it yourself, build and test your own gear.
- Experiment with new software applications for radio, or create your own.
- Explore the radio science that powers cell phones, Bluetooth and all of the hottest wireless technologies
- Learn to Solder and Build Your Own Equipment
- Learn about the Science of Propagation and how it is affected by atmospheric and space weather
- Bounce Radio Signals off of the moon and talk to hams all over the world.
- Build Radio and Electronic Kits and then use them in everyday applications.



Mission Statement - The Mission of the Fort Myers Amateur Radio Club (FMARC) is to recruit, train and help committed Ham Radio operators carry on the tradition of amateur radio by using our network of technical resources and expertise to provide equipment, skilled operators and emergency services when called upon by local authorities in time of need to assist and protect the citizens in the communities in which we live and serve. FMARC is dedicated to community service and providing education to the general public about the history, operation, functions and benefits of the Amateur Radio Service. FMARC members adhere to the Amateur Radio creed and are considerate, loyal, progressive, friendly, balanced and patriotic