AMATEUR RADIO

ACADIANA AMATEUR RADIO ASSOCIATION, INC.

P.O. BOX 51174
LAFAYETTE, LA 70505-1174

AARA HANDBOOK

WEBSITE: www.w5ddl.org

WHAT IS AMATEUR RADIO a.k.a. "HAM RADIO"?

Ham radio is a universal hobby enjoyed by millions of people world over where you use two way radio transmissions to communicate with each other on certain designated ham frequencies. It is a hobby that requires a license from the Federal Communications Commission (FCC) but the license is not that hard to obtain. It's just a matter of studying the rules and regulations, passing a test and paying a small fee – and of course getting your radio equipment. There are different levels of licenses that allow you more band privileges and operating modes.

WHAT ARE SOME OF THE THINGS I CAN DO ONCE LICENSED?

Most cities of any size will usually have numerous ham radio operators and more than likely at least on Amateur Radio Club. These clubs usually participate in all kinds of special events, contests, nets, and casual conversation (we call rag chewing) along with many other fun activities. Nation-wide contests, special event stations, are going on each weekend. On the serious side, ham radio operators help in weather spotting and reporting, providing communications during times of disaster, message handling over the National Traffic Service and providing communication during local events such as marathons and parades.

HOW DO I GO ABOUT FINDING OUT MORE ABOUT AMATEUR RADIO?

If you have Internet capabilities, you can go to the following URL's for more information.

Local & National Information Links

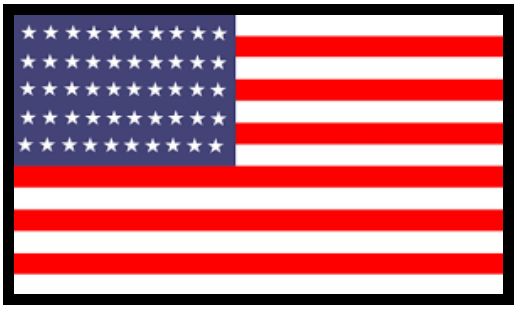
Acadiana Amateur Radio Association, Inc. Website:	http://www.w5ddl.org
Acadiana Amateur Radio Association, Inc. Website:	http://www.w5ddl.org/clubsite/
American Radio Relay League: Website:	http://www.arrl.org/newham/
eHam: Website:	http://www.eham.net/newham/
Ham Universe: Website:	http://www.hamuniverse.com/hamradio.html

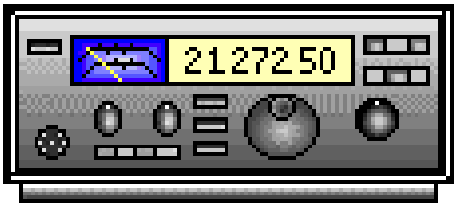
The AARA General Meeting is held on the first Thursday of each month at 7:00 PM at the **Lafayette Science Museum**, 433 Jefferson St., Lafayette, Louisiana. VE Testing will take place at 6:00 PM prior to the General Meeting. You can also drop a note to the AARA address shown at the top of this flyer. Information and map can be found at:

http://www.w5ddl.org/clubsite/

For Practice Exams & Question Pools, go to:
http://www.w5ddl.org
Click on one of these links:

* Technician Class Presentations
* Practice Exam by Hamilton KD0FNR
* Technician Class Practice Exam
* General Class Practice Exam
* Extra Class Practice Exam





WE WILL BE LOOKING FORWARD TO MEETING YOU & GETTING YOU "ON THE AIR"!

Local 2-Meter Nets

Monday
AARA Monday Night Net 7:00 PM
146.820 - PL 103.5 Lafayette, LA

Tuesday
Acadiana ARES Net 7:00 PM
145.370 - PL 103.5 Lafayette, LA

Wednesday
Silent Key Memorial Net
145.410 New Iberia, LA

Thursday
Youth Net 7:00 PM
146.820 - PL 103.5 Lafayette, LA

Friday

AARA OFFICERS 2016 2017

President Mark Saltzman W5GTI
Vice Pres. Larry LeBlanc KE5KJD
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AARA REPEATERS

146.820 - PL103.5
EchoLink Node: 370324
147.040 + PL 103.5
145.410 - No PL
443.000 + PL 103.5

SKYWARN REPRATER

145.370 - PL 103.5

AARA MEMBERSHIP ROSTER - May 2016

Call	Last Name	First Name
NØJA	Allen	John
KG5MCY	Ancelet	Chris
N5AUO	Azar	Barbara
N5AN	Azar	Bud
W5DHP	Bailey	Karl
W5KB	Barnes	Keith
KE5UTC	Barnes	Debbie
WB5AAA	Barron	Jim
KD5JCT	Begnaud	Calvin
KE5IBM	Begnaud	Cheryl
N5HVY	Bergeron	Dalton
KC5DPL	Bienvenu	David
KG5KFK	Blanchard	Bobby
KE5UPK	Bookter	Irma
N5NVP	Bookter	Jim
N5CRR	Born	Jennifer
KF5ZSR	Bost	Benjamin
N5LMM	Bourgeois	Roderick
KD5NVC	Breaux	Glenn
N5YCS	Breaux	Joy
KE5HSY	Breaux	Linda
N5RLM	Breaux	Rick
KC5AJL	Breeden	Lacy "Skip"
KE5NTW	Brockman	Mark
KF5SEQ	Broussard	Jared
KE5MLA	Broussard	Rolland
N5QWA	Broussard	Terry
KN5GRK	Campbell	Herman
N5MLJ	Castille	Randy
KG5NCB	Cearley	Melissa
KG5AYK	Cleveland	Robert
K5IVR	Cooley	Robert
K5PCL	Cooley	Priscilla
K5BMC	Cook	Betty
KE5LP	Cook	Fred
W4HVH	Cunniff	John
KD5JSM	Daigle	Danny
KD5TJZ	Daigle	Kathy
KF5THS	Degeyter	A.J.
W5OHJ	Dischler	Tom
K5LFT	Dolan	Greg
N5DAL	Doyle	Mike
KF5WP	Fabacher	Albert
K5UA	Fontenot	Charles
KF5AHM	Faulk	James
N5BMD	Fuselier	Herman
WA5KNC	Garcia	Eugene
KC5VRN	Gaudet	Phoebe
WB5GAF	Gaudet	Ralph
KF5LUL	Gillion	Jess
KB1NRO	Glisson	Michael
KE5WZK	Gordon	Robert
NA5Q	Guidry	Roland
KG5AYJ	Haviland	Chad
KG5JTA	Haviland	Owen
KG5AYI	Haviland	Samuel
KG5JTB	Haviland	Sonja
KG5AYI	Haviland	Samuel
N9QO	Hayes	William
KB5WI	Hebert	Weston
W5AG	Hill	Archie
KG5HNO	Jobe	Ramona
NG5X	Keller	Roy
K5VXX	Konecni	Joe
KG5HNP	LeBlanc	Chris
KE5KJD	LeBlanc	Larry
KE5KJF	LeBlanc	Sandy
KE5JXC	Lemaire	Arnold
KG5KZH	Lutz	Theron
KA9TWO	Mahler	Linda
KF5VH	Mahler	Stephen
KG5KZJ	Malone	Patrick
W5MLE	Marshall	Fred
KE5RPI	Marshall	Karen
N5KNY	McCasland	Paul
KG5JHR	McCutcheon	David
W5SIY	McGrath	Mike
WM5TS	Meche	Derek
KC5VDK	Morgan	Deborah
KC5UGC	Morgan	Steve
N5WE	Morrison	Charles
NZ5O	Morvant	Kevin
K5FNQ	Mouton	Art
KD5VPC	Murphy	Gerard
W6DLN	Neidetcher	Demian
KX5J	Nelson	Lee
N5WXY	Peyton	Barry
N5OB	Pierce	Dave
KE5RPL	Pugh	Joann
K5QXJ	Pugh	Nick
N4ELM	Redfearn	Dave
N8OVD	Reeves	Jimmie
N5RNG	Ritter	John
KC5IJI	Ritter	Karen
K5JMR	Robertson	John
KG5CNU	Romero	James
KB5TWL	Romero	Mitch
KE5MWX	Romero	Nick
KF5CNS	Romero	Paula
W5GTI	Saltzman	Mark
AG5CB	Runner	Benjamin
N5FJB	Runner	Bruce
KG5KFI	Rushing	Randy
K5VSH	Scallan	Paul
N5YOP	Simon	Esther
WD5CAE	Simon	Mel
ND5C	Soileau	Pat
W5WMU	Sonnier	Pat
KG5GKF	Sorrell, Jr.	John
KG5KZL	Stacks	Jerry
NJ5X	Strodtman	Don
KF5FNP	Thibodeaux	Glen
KE5QKE	Verret	Keith
KF5PCH	Wallace	Jackie
KF5KEL	Wallace	Ric
AF5VR	Webre	Steve
KK6EWB	Werk	Ingo
KF5RBW	Williams	James
KF5BEW	Wilson	Abbi
KF5BET	Wilson	Galen
KF5FYS	Wilson	Kendra
KG5FMP	Woods	John
KD5QYV	Wotipka	Kris
AI5O	Wyatt	Steve

ORGANIZATIONS & INFORMATION

The Acadiana Amateur Radio Association, Inc.

The Acadiana Amateur Radio Association, Inc. (AARA) is a group of amateur radio operators n the south-central Louisiana area known as Acadiana consisting of over 100 members that meet once a month.

We also have a club amateur radio station setup at the Red Cross building to let new operators get "hands on" experience in operating procedures. There are two "BIG" events that our club is involved. One is our "AARA Hamfest" held around the middle of March in Rayne, Louisiana and the second is the "ARRL Field Day" held the last full weekend in June. There are also some "Special Event" stations happening at different times during the year that make amateur radio a lot of fun.

The AARA operates a VHF repeater with EchoLink & Digital capabilities 146.820 PL 103.5

The AARA has website accessible to anyone interested or already a ham radio operator with lots of information pertaining to this hobby such as membership information, repeater listings and nets, photo galleries, events, practice exams, monthly newsletter, e-mail service and links to other clubs and much, much more. Our website can be found at:

http://www.w5ddl.org

American Radio Relay League (ARRL)

The American Radio Relay League (ARRL) is the largest membership association of amateur radio enthusiasts in the USA. ARRL is a non-profit organization, and was founded in April 6, 1914 by Hiram Percy Maxim of Hartford, Connecticut. The ARRL represents the interests of amateur radio operators before federal regulatory bodies, provides technical advice and assistance to amateur radio enthusiasts, supports a number of educational programs and sponsors emergency communications service throughout the country. The ARRL has approximately 154,000 members. In addition to members in the US, the organization claims over 7,000 members in other countries. The ARRL publishes many books and a monthly membership journal called QST. The ARRL held its Centennial Convention in Hartford, Connecticut in July 2014.

The ARRL is the primary representative organization of amateur radio operators to the US government. It performs this function by lobbying the US Congress and the Federal Communications Commission. The ARRL is also the international secretariat of the International Amateur Radio Union, which performs a similar role internationally, advocating for amateur radio interests before the International Telecommunications Union and the World Administrative Radio Conferences.

The organization is governed by a member-elected, volunteer Board of Directors. Each director serves a three-year term and represents the members within their particular region of the country. The national headquarters facilities are located in Newington, Connecticut. Along with the administrative headquarters, the 7-acre (2.8 ha) site is home to amateur radio station W1AW. The ARRL Field Organization carries out local and regional activities across the United States. ARRL website:

http://www.arrl.org

Ham Radio Links

ARRL Delta Division Website	**http://www.arrldelta.org**
ARRL Louisiana Section Website:	**http://www.laarrl.org**
Lafayette SkyWarn Homepage	**http://www.ucs.louisiana.edu/~sjm8725/mahler/skywarn/**
AC6V's Amateur Radio & DX Reference Guide	**http://ac6v.com/**
QRZ Callsign Lookup Data Base	**http://www.qrz.com/index.html**
EchoLink Website (Setup, nodes, repeaters)	**http://www.echolink.org/**
Acadiana Area Repeaters & Information	**http://www.w5ddl.org/clubsite/repeater.htm**
US Amateur Radio Bands	**http://www.arrl.org/files/file/Regulatory/Band%20Chart/Hambands_color.pdf**
Ethics and Operating Procedures for the Radio Amateur	**http://www.hamradio-operating-ethics.org/files/36-Eth-operating-EN-IARU-R2-V3-CORR-2011.pdf**

What is Amateur Radio?

by Stratos Imvriotis KE5DCI

If you were to ask a dozen different amateurs what ham radio meant to them chances are you would get 12 different answers. Radio amateurs have discovered a richly rewarding high-tech hobby that has many different appeals to different people. Whether it is the ability to talk to local friends over the radio waves using a hand-held transceiver (HT), communicating digitally with packet radio to exchange personal messages or vital information in an emergency, talking to other hams anywhere in the world, or engaging in contests with other Radio Amateurs over the airwaves there is something for everyone.

Amateurs or Hams?

Amateurs are often affectionately called hams or ham radio operators and frequently the public is more familiar with this term than with the legal term Radio Amateur. The source of the name ham is not known but it has been around almost from the beginning of amateur radio in the early 1900s. The name amateur has nothing to do with skill or knowledge but rather implies that ham radio cannot be used for commercial or revenue generating purposes. It is truly a hobby but often one that makes a difference especially in emergency or disaster situations.

Modes of Communication

Amateur radio operators generally use radio transmitters and receivers to communicate with each other. As you will discover in these pages there are many forms of communication although voice (also known as phone) is still the most widely used. Some of the other forms of transmission are Radio Teletype (Rtty), Morse code (CW), amateur television (ATV), and digital modes such as Packet, Pactor and PSK-31. A recent survey shows that phone is the most widely used with CW standing second.

Getting Licensed

To become a radio amateur you will need to get a license. Licensing requirements are different in every country with different rules, privileges, and classes of license. Basically different levels of license give different privileges on the ham bands. The more challenging the license requirements the more privileges that are granted and the more interesting and enjoyable ham radio becomes.

What Hams Do?

Whether you would like to chat with your friends on the way to work or school, check into a net to discuss topics of a mutual interest, or volunteer for emergency services, amateur radio is first and foremost about communication. With hams that means two way communications by radio. Radios can be hand-held transceivers similar to a walkie talkie, a mobile unit for use in a car or other vehicle, or a base station with an outdoor antenna used for local or distance communication. Regardless of the type of equipment radio amateurs have a wide range of activities they can pursue. Some of these are:

- **Talking** with friends within the local community using a hand-held transceiver (HT) on VHF (2 meters) or UHF (70 cm.). You can extend your HT range up to 50 miles or more by transmitting through a local repeater.

- **DXing.** DX means distance communication and with the right equipment worldwide communication on the HF bands (10 through 160 meters) is a regular possibility.

- **Assisting with emergency and disaster communication.** Organizations in the amateur community such as the Amateur Radio Emergency Service (ARES) and the National Traffic System (NTS) prepare amateurs with the training needed to assist in emergency situations.

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· **Technical experimenting.** Hams come from all walks of life ranging from technicians to engineers, teachers to scientists, and students to retirees. For many of them the attraction to the hobby is to build their own equipment whether it is just a simple antenna, something as complex as a transmitter, or an interface between their radio and a computer.

· **Contesting.** Contesting is often called the "sport" of ham radio. Almost every weekend there is some form of amateur radio contest. Hams get on the air and compete to see who can make the most contacts in a limited period of time.

· **Talk to an astronaut.** Yes, it is really possible. Space stations do have ham radio equipment and licensed ham astronauts take the time to make contacts with amateurs on earth. Hams also have satellites where you can bounce a signal to communicate with other hams on earth.

· **Use digital communication.** Connect a computer to your radio and install some software and you can be communicating digitally over the air. Some of these digital modes can be more effective in marginal transmission conditions and some even sport error free transmission.

· **Internet communication.** Using some of the latest technologies hams can supplement a modest station with Internet connections. Using features such as URL or IRLP or ECHOLINK on a local repeater a ham in Toronto can talk to one in Vancouver or even Australia using a simple hand-held transceiver.

To get involved with any of these activities requires an amateur radio license and maybe a little help from a neighborly ham or your local ham club.

Call Signs

Every licensed Radio Amateur is given a call sign that is used to identify you and your location of license. Each country that has Amateur Radio status is allocated a range of call signs by the International Telecommunications Union (ITU).

Prefix and Suffix

Call signs consist of a prefix and a suffix. The prefix is usually composed of one or two letters and a number such as VE4 in Canada for the province of Manitoba or K9 in the U.S. for the states Illinois, Indiana, and Wisconsin. Some countries have prefixes that are composed of a number and a letter such as 4X for Israel or 9K for Kuwait. While the prefix uniquely identifies a country the suffix is unique for the individual. In Canada a call sign such as VE3ABC has VE3 (Ontario) as the prefix and ABC as the suffix. In the U.S the call sign N2MG has a prefix of N2 and suffix of MG. U.S. hams may also have a two letter prefix thus AB2Z is a valid call. Suffixes may also be less than three letters so you have call signs such as VE7AB in British Columbia and KH6Y in Hawaii.

Call Areas

In North America the number in the call sign generally refers to an area of the country. The 3 in VE3 refers to Ontario and the 6 in K6 refers to California. The number may be shared between states in the U.S. so that 1 as in K1 or W1 can refer to the states of Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island and Vermont. Usually in Canada the number refers to a single province although VE1 can refer to the Maritime provinces New Brunswick or Nova Scotia. Other countries follow a similar practice so you can have states in Brazil and Prefectures in Japan.

U.S. Prefixes

Prefixes used by Amateurs in the United States are shown in the following table. U.S. Radio Amateurs may have either a single letter or two letters in the prefix. See the two letter allocations at the bottom of the table. The single letter prefixes K, and N are also in use by U.S. Amateurs. To further complicate matters Amateurs that have moved to a different area of the country may retain their existing call sign so when you hear W8ABC you may be receiving a signal from other than the W8 states.

International Call Sign Allocation

Prefixes beginning with both letters and numbers are allocated to countries around the world that have Amateur Radio licensing.

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Special Call Signs

In many countries special call sign allocations may be made to commemorate a special event. These special event call signs usually have an unusual prefix so that the station using the call will be easily recognized. For example the calls M2000A and 7S2000M were heard quite often commemorating the year 2000. CI3O was used in 1996 for the Charles Island DX-PEDITION. Many of these special events also have unique QSL cards that are well worth the effort to make the contact and to send for the card.

Vanity Call Signs

Another type of call sign is the vanity call as it is called in the United States. The FCC in the U.S. and Industry Canada permit hams to apply for a call that has special meaning to them. For example, Bob R. might apply for the call KA5BOB or Pam W. might ask for VE3PAM for obvious reasons.

Operating Portable or Mobile

If an amateur operator is in a province, state or country other than his or her own then he/she is working portable. If he was in Florida then the call sign KE5DCI/W4 would be used. KE5DCI in New York would use KE5DCI/W2 and in Quebec would use KE5DCI/VE2. Although a common practice for U.S. hams who have moved to a new state is to continue with their old call sign. Thus KE5DCI who moves to Florida might be using the same call without the portable indication. But he could sign KE5DCI/4. In most areas of the world the portable prefix comes before the call. Thus if KE5DCI was active in Australia the call would be VK1/KE5DCI pronounced "VK1 portable KE5DCI" or ZL1AM in California might use W6/ZL1AM although ZL1AM/W6 would also be acceptable there. When working mobile you would use a call such as KE5DCI/M pronounced as "KE5DCI mobile."

Amateur Radio Bands

Just as many of us have a favorite fast food that we come back to time after time Radio Amateurs tend to have a favorite band that they use more frequently than other bands. The question of what band to use may be secondary to that favorite band. But the first question should be what band(s) am I licensed to use? From the beginning of the licensing process you will find out what bands your license covers.

Next it is a matter of having the right equipment for the bands you want to use. As an entry level license generally covers VHF (2m) and UHF (70cm) and many beginning hams will use one of both of these bands. Also hand-held single-band or dual-band radios for these bands are affordable and don't require a sophisticated antenna or power source. Most metropolitan areas also have amateur repeaters to extend the coverage when using VHF or UHF radios.

Popular Bands

So what are the bands that most Radio Amateurs use? The table below shows bands that are relatively common and how and when they are in use. Again your license will determine which bands and what portions you are eligible to use.

	Band (meter)	MHz	Use*
HF	160	1.8 - 2.0	night
	80	3.5 - 4.0	night and local day
	40	7.0 - 7.3	night and local day
	30	10.1 - 10.15	CW and digital
	20	14.0 - 14.350	world wide day and night
	17	18.068 - 18.168	world wide day and night
	15	21.0 - 21.450	primarily a daytime band
	12	24.890 - 24.990	primarily a daytime band
	10	28.0 - 29.70	daytime during sunspot highs
VHF	6	50 - 54	local to world-wide
	2	144 - 148	local and medium distance
UHF	70 cm	430 - 440	local

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Band Restrictions

In addition to deciding what band to use there may also be restrictions within the band depending on your level of license? Canada and the U.S. each have slightly different band allocations which amateurs in each country must follow. See the sidebar for links to web sites where the band plans are defined.

Also the world is divided into 3 ITU regions each of which have their own band plan. These plans all have a great deal of overlap so you can usually talk to anyone anywhere providing you get onto a frequency acceptable to both.

HF Bands

For amateurs who have an interest in long distance communication the HF (high frequency) bands will be of great interest. These bands offer propagation to all parts of the world at some time during the day, night or season. Do you want to talk to Japan from the east coast or Europe from the west? There will often be a time and a band where this communication is possible.

During a sunspot high cycle conditions are best for the higher HF frequencies and during a low the low frequencies are often in demand with all kinds of variation in between. Magazines such as QST and CQ Amateur Radio publish charts monthly that predict the best propagation to different areas of the world. These are just best guesses and will help you to choose your times and a band but there is no substitute for getting on the air.

Basic Radio Operating Practices

So you now have your license and you are ready to get on the air. The most important thing to do before beginning is, to listen and observe how other hams are making their contacts. As different modes and bands seem to have slightly different approaches, it helps to have heard a few exchanges on a band before you make that first contact.

Depending on your radio and license, you may have to decide on where and how you want to begin operating. If you are using a hand-held transceiver you may begin through a local repeater or direct (simplex) on the VHF and UHF bands. If you passed a CW test you may begin on some of the HF bands using CW or SSB. So let's give a quick run-down of each of these operations.

The Amateur's Code

The Radio Amateur is…….

CONSIDERATE...never knowingly operates in such a way as to lessen the pleasure of others.

LOYAL...offers loyalty, encouragement and support to other amateurs, local clubs, and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.

PROGRESSIVE...with knowledge abreast of science, a well-built and efficient station and operation above reproach.

FRIENDLY...slow and patient operating when requested; friendly advice and counsel to the beginner; kindly assistance, cooperation and consideration for the interests of others. These are the hallmarks of the amateur spirit.

BALANCED...radio is an avocation, never interfering with duties owed to family, job, school or community.

PATRIOTIC...station and skill always ready for service to country and community.

--The original Amateur's Code was written by Paul M. Segal, W9EEA, in 1928.

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

The International Telecommunications Union
Standard Phonetic Alphabet

How to Use Amateur (Ham Radio) Repeaters by N4UJW

Simple enough for even me to understand!

This article will help the New Ham to be more at home on repeaters and understand the operation and procedures on Ham Radio Repeaters.

It contains a basic description of a ham radio repeater, how to use it properly and is written with the NEW HAM in mind for one of the most popular ham bands....2 meters.

then re-transmits what it receives on another frequency; at exactly the same time. It's nothing more than a "dumb electronic machine" with some smart people behind it.

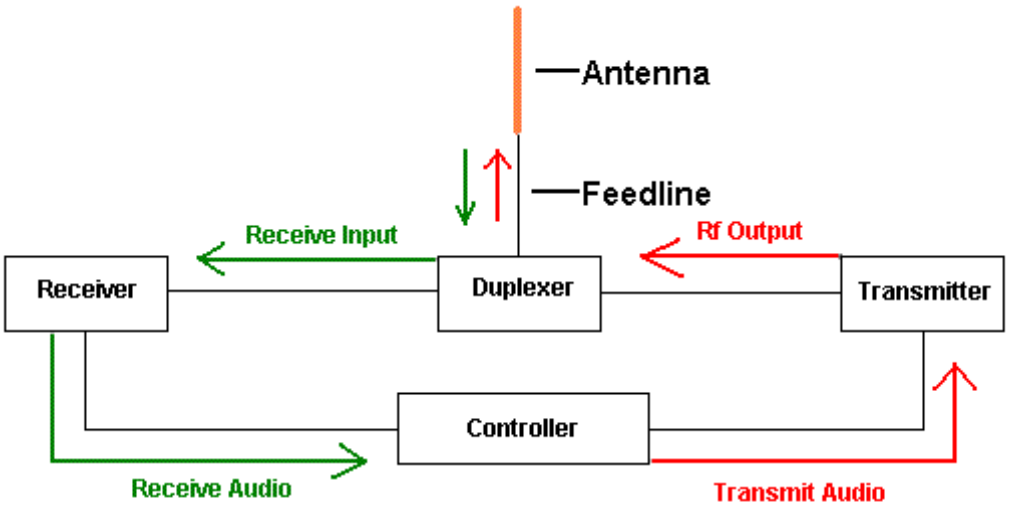
What is a Repeater and Why is it Needed, and How Does It Work?

What: It's a two-way radio system that receives on one frequency,

Why it's needed: Your mobile or hand held transceiver, has a limited range due to it's antenna height with respect to the radio horizon and rf attenuating surroundings. Repeater systems are used to "transfer" your transmitted and received signals to much higher levels electronically using large, very efficient high gain antennas, low loss feed-lines and a transmitter and receiver that is rated for heavy or continuous duty. A repeater "gets out" your signal and receives the station you are talking to with a far greater range and coverage area! You take advantage of the repeater's higher elevation to increase your effective transmitting and receiving coverage versus your mobile or hand held transceiver!

How does a Repeater work?

Here's a simple block diagram of a repeater below:



BASIC REPEATER BLOCK DIAGRAM N4UJW

Standard Repeater Input/Output Offsets

Band	Offset
6 meters	1 MHz
2 meters	600 kHz
1.25 meters	1.6 MHz
70 cm	5 MHz
33 cm	12 MHz
23 cm	20 MHz

(Note that input/output offsets are voluntary among local and regional "Frequency Coordination Groups".

They are not fixed in stone by the FCC! They are "recommended" offsets for a particular area.

Your area may be different. Check with your local repeater operators.

More information can be found at:

http://www.hamuniverse.com/repeater.html

CTCSS (PL) Tones Frequencies

Metropolitan Coordination Association, Inc.

CTCSS stands for Continuous Tone Coded Squelch System, it is the generic abbreviation and is used to minimize co-channel interference.

Below is the terminology used by different commercial companies for CTCSS:

PL is the Motorola Abbreviation for "Private Line".

QC is the RCA abbreviation for "Quiet Channel".

CG is the General Electric abbreviation for "Channel Guard".

CTCSS is often referred to as a "PL" tone by many users.

Many repeaters require the use of a PL tone to access the repeater.

The frequency that a user transmits to access a repeater is the Repeater CTCSS Encode Frequency.

The frequency that the repeater transmits to the user is the Repeater Decode Frequency.

Deviation of a transmitted tone should be a maximum of 500Hz.

Contrary to popular belief, the requirement of a PL tone to access a repeater does NOT mean it is closed. A PL is frequently used to preclude interference in high RF environments and lessen what is called kerchunking (unnecessary keying of the repeater). Some repeaters may also generate a PL tone on the repeater output so that repeater users who are equipped with a radio capable of decoding PL will not hear other interference sources on the channel that would otherwise open the squelch on the user's radio.

It is up to the owner / trustee of the repeater to decide whether or not to make public the PL tone for a particular repeater. MetroCor follows the wishes of the owner / trustee in publishing the PL code only when so requested.

MetroCor strongly recommends the use of PL on repeaters' receivers. PL is a minor inconvenience when you consider how many potential problems it can eliminate. The use of PL may be required for a coordination to be granted if conditions so warrant, such as proximity to a co-channel repeater, or in an area where band openings frequently aggravate co-channel interference problems.

MetroCor hopes that repeater owners / trustees in a given area will standardize on a particular PL tone and incorporate it into their operational plans. The reason for this is to make it easier for users to operate the local repeaters in an area, as some older radios are only capable of a single PL tone as compared to modern radios which can have PL tones selected on a per-channel basis.

Today most radios have encode PL devices. Some radios have both, encode and decode. If anyone needs a PL board for their radios they can check with the radio manufacturer and see if the tone boards are available. If they are not there are third party companies that manufacture PL units that fit into most models of radios. If you do not feel comfortable in installing a PL in your radio ask someone at your local radio club or contact any 2-way radio repair shop and they will be able to assist you.

The following chart showing each PL tone's two-character alphanumeric designator and the corresponding tone frequency in Hertz.

XZ	67.0	1B	107.2	6A	173.8
WZ	69.3	2Z	110.9	6B	179.9
XA	71.9	2A	114.8	7Z	186.2
WA	74.4	2B	118.8	7A	192.8
XB	77.0	3Z	123.0	M1	203.5
WB	79.7	3A	127.3	8Z	206.5
YZ	82.5	3B	131.8	M2	210.7
YA	85.4	4Z	136.5	M3	218.1
YB	88.5	4A	141.3	M4	225.7
ZZ	91.5	4B	146.2	9Z	229.1
ZA	94.8	5Z	151.4	M5	233.6
ZB	97.4	5A	156.7	M6	241.8
1Z	100.0	5B	162.2	M7	250.3
1A	103.5	6Z	167.9	0Z	254.1

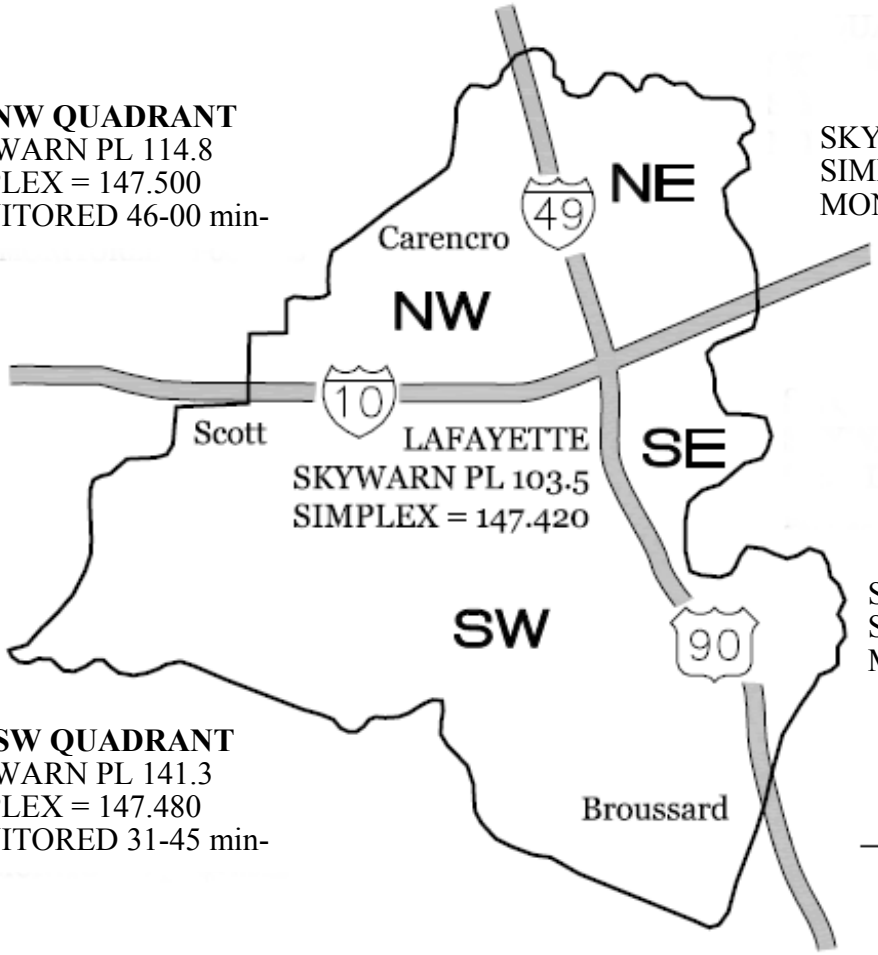
Acadiana area hams should use repeaters in the order shown below. If a repeater goes down, switch to simplex frequencies. Use the 145.370 (pl 103.5) repeater for SkyWarn in the city of Lafayette, otherwise use the pl for the quadrant you are in. Acadiana area simplex frequency (147.420) should be monitored along with the repeater frequency for the quadrant you located. If you are working with the Red or at a shelter, use the 147.520 simplex for voice and 145.000 (center on 1500) for digital. Monitor the Red Cross / shelter voice frequency (147.520) for information regarding digital modes.

REPEATER	FREQUENCY	OFFSET	PL TONE
PRIMARY	145.370	—	103.5
BACKUP #1	146.820	—	103.5
BACKUP #2	147.040	—	103.5
ACADIANA SIMPLEX	147.420	NONE	NONE

EACH QUADRANT IS MONITORED IN 15 MINUTE INCREMENTS. IF THERE IS AN EMERGENCY, USE THE REPEATERS AS LISTED TO THE LEFT.

NW QUADRANT
SKYWARN PL 114.8
SIMPLEX = 147.500
MONITORED 46-00 min-

NE QUADRANT
SKYWARN PL 127.3
SIMPLEX = 147.440
MONITORED 00-15 min-



SE QUADRANT
SKYWARN PL 94.8
SIMPLEX = 147.400
MONITORED 16-30 min-

SW QUADRANT
SKYWARN PL 141.3
SIMPLEX = 147.480
MONITORED 31-45 min-

During extreme severe weather, the 145.370 PL 103.5 SkyWarn Repeater may be activated for local weather reports from amateur radio operators.

Check out the Acadiana ARES Net on Tuesday evenings at 7:00 PM Central on the 145.370 PL 103.5 repeator.

SKYWARN

LAFAYETTE PARISH SKYWARN

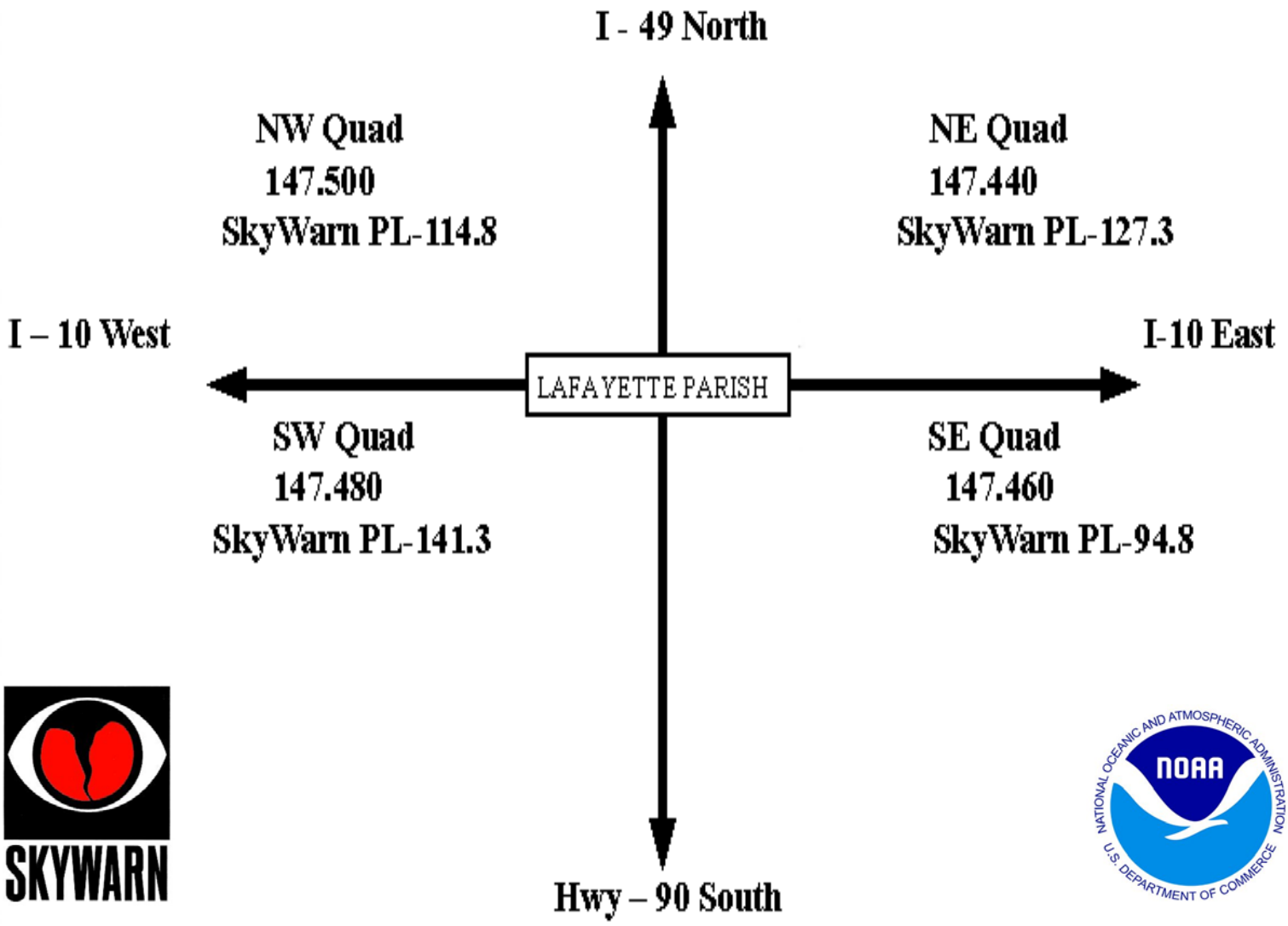
2 Meter EMCOMM Frequencies

Shown below are the 2 meter frequencies for EMCOMM. Acadiana area hams should use the repeaters in the order listed below first. If the repeaters go down, switch to the simplex frequencies. Use PL-103.5 for SkyWarn in the city of Lafayette, otherwise use the PL tone for the quad you are in. There is one simplex frequency for the Acadiana area (147.420) which should be monitored along with the simplex frequency for the quadrant you are in. The intersection of I-49/HWY-90 South and I-10 East/West has been chosen for the center of the quadrant. If you are working in support of Red Cross or at a shelter, use 147.520 simplex for voice and 145.000 simplex for digital.

Monitor the Red Cross/Shelter voice frequency for information regarding digital modes.

Repeater #1	145.370 (-) PL Tone 103.5 SkyWarn
Repeater #2	146.820 (-) PL Tone 103.5 AARA
Repeater #3	147.040 (+) PL Tone 103.5 AARA
Acadiana Area Simplex	147.420
Red Cross/ Shelter Simplex Voice	147.520
Red Cross/ Shelter Simplex Digital	145.000 (Center on 1500)

Shown below are the Lafayette Parish Quadrants. Shown are the Simplex frequencies and the PL tones for the SkyWarn 145.370 repeater receiver settings for that quadrant.



Using a HT and a Repeater

Many amateurs begin by getting the Basic Technician (U.S.) class license. By far the most common mode of operation for them is the HT through a local repeater. Assuming you have the HT set up to the appropriate frequency, offset, and if necessary, CTCSS tone then you are ready to make your first contact.

To Initiate a Call

For this instruction let's assume you live near a repeater that services your area.

1. Press the mike button on the HT and say "***Your Call listening***." Of course you would use your own call sign.

That might be all you need for a response. But if there is no response (which is quite likely) then you might try again but this time say "***Your Call is monitoring and listening for a call.***"

Usually you don't need to call CQ on a repeater, although there is nothing wrong with that. We will look at calling CQ shortly.

2. You get a response something like "***Your Call this is Their Call returning. My name is JOHN. Back to you.***"

At this point you want to wait for the repeater's courtesy tone to indicate it is okay to proceed.

3. Press you mike button and respond. At this point the discussion can be whatever you make it. Give your name and location and any other information you wish to JOHN and when you are ready say "***Over***" or "***Back to you***."

It is a good idea to give your call sign frequently so after a longer transmission you would say "***Their Call this is Your Call . Over***."

The use of the terms "over" or "back to you" are a courtesy that lets the other operator know that you are finished talking and are turning the operation back to him or her.

4. At the end of the contact you would finally say good-bye or 73 and sign off by saying "***Their Call this is Your Call clear and monitoring.***" That is if you intend to continue to monitor. If not you could say "***...clear and QRT***" instead.

To Respond to a Call

To respond to a call over the repeater with a HT you would take on the role of the opposite person in the above discussion. You hear ***Their Call*** calling on the repeater so answer as follows after the repeater tone drops:

1. "***Their Call*** *this is* ***Your Call*** *Good morning my name is* ***Your Name*** *and my location is* ***Your Location*** *LA. Over to you."*

2. Basically the exchange would proceed as discussed above. Be sure to identify your station occasionally and definitely identify yourself at the end of the contact as explained above.

Making Direct Phone Contacts

Whether you are operating HF, VHF or UHF without a repeater the procedure is essentially the same. In each case you will be transmitting directly by radio waves to another amateur's radio. You only need to set the operating band and frequency without the need for an offset or tone to access a repeater. However, depending on your radio and antenna it may be necessary to tune the antenna before beginning.

Calling CQ to Make a Contact

Let's assume your license permits you to operate SSB on 10 meters.

1. Begin by finding a clear frequency such as 28.460. Speak clearly into the mike and ask "***Is this frequency in use? This is Your Call .***" If you get no response you might ask a second time just to be sure. Again if there is no response then proceed to step 2. If someone says that the frequency is in use then just move to another clear frequency and try again.

2. Now call ***"CQ CQ CQ. This is Your Call in Phonetics calling CQ CQ CQ. This is Your Call in Phonetics calling CQ and waiting for a call."***

Now you listen for the return call. Being on an HF band (10 meters) it is possible to get a call ranging from very strong to very weak.

3. You hear ***"Your Call this is Their Call in Phonetics calling.***"

4. You respond by saying "***Their Call (using phonetics is best) this is My Call. Thanks for the call your signal is 59. My name is Your Name and my QTH is Your Location in LA. So how do you copy? Their Call this is My Call over.***"

You have made your first HF contact. At this point you can make the contact as long or short as you like depending on the band conditions and what you find to discuss with your new friend.

5. You end an HF contact by giving both call signs and signing off. For example: "... ***Thanks Their Namefor the contact and 73 to you and your family. Their Call this is My Call signing off."***

(continued on page 13 column 1)

(continued from page 12)

What do you do if more than one station responds to your call? If you hear one call clearly then simply respond to that station as discussed above. If you hear only parts of call signs, maybe "***Alpha November***" then in step 4 begin by saying "***the station with Alpha November make your call.***" Once you have heard the complete call sign you can proceed as in step 4.

1. "***Their Call this is My Call. Good morning my name is My Name and my location is My Location LA. Over to you.***"

2. Basically the exchange would proceed as discussed above. Be sure to identify your station occasionally and definitely identify yourself at the end of the contact as explained above.

Making Direct Phone Contacts

Whether you are operating HF, VHF or UHF without a repeater the procedure is essentially the same. In each case you will be transmitting directly by radio waves to another amateur's radio. You only need to set the operating band and frequency without the need for an offset or tone to access a repeater. However, depending on your radio and antenna it may be necessary to tune the antenna before beginning.

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Let's assume your license permits you to operate SSB on 10 meters.

1. Begin by finding a clear frequency such as 28.460. Speak clearly into the mike and ask "***Is this frequency in use? This is My Call.***" If you get no response you might ask a second time just to be sure. Again if there is no response then proceed to step 2. If someone says that the frequency is in use then just move to another clear frequency and try again.

2. Now call ***"CQ CQ CQ. This is My Call in Phonetics calling CQ CQ CQ. This is My Call in Phonetics , My Call calling CQ and waiting for a call."***

Now you listen for the return call. Being on an HF band (10 meters) it is possible to get a call ranging from very strong to very weak.

3. You hear ***"My Call this is Other Station in Phonetics calling."***

4. You respond by saying "***Other Station (using phonetics is best) this is My Call. Thanks for the call your signal is 59. My name is My Name and my QTH is My Location in LA. So how do you copy? Other Call this is My Call over.***"

You have made your first HF contact. At this point you can make the contact as long or short as you like depending on the band conditions and what you find to discuss with your new friend.

5. You end an HF contact by giving both call signs and signing off. For example: "***... Thanks His Name for the contact and 73 to you and your family. His Call this is My Call signing off."***

What do you do if more than one station responds to your call? If you hear one call clearly then simply respond to that station as discussed above. If you hear only parts of call signs, maybe "***Alpha November***" then in step 4 begin by saying "***the station with Alpha November make your call.***" Once you have heard the complete call sign you can proceed as in step 4.

Responding to a CQ

Begin by tuning within the range of frequencies that you are permitted to operate and find a station calling CQ. To respond to the station you take on the role of the other station in the above exchange. The one difference is that after you call you may find out that other stations are also calling and that your call is not immediately recognized. If so wait until the stations complete their contact and then try again. If you don't want to wait then tune for another station calling CQ and answer this call.

CW Contacts

Making a CW contact is very similar to making a phone contact except of course you are using Morse Code. The process of CQ'ing and exchanging information is about the same although CW operators use more abbreviations to make sending faster.

1. Call CQ as follows: ***"CQ CQ CQ My Call, My Call, My Call K***" and wait for a response.

(continued on next column)

2. The other station may respond as "***My Call de His Call, His Call K"***

3. Now it's your turn. "His Call de My Call GM UR RPT IS 599 599 NM IS My Name ES QTH IS My Location LA His Call DE My Call KN"

To avoid confusion I have left out the punctuation in the above line. Normally punctuation is not used for casual contacts to reduce the amount of sending needed. It usually is quite obvious to both operators where the punctuation should go.

Notice the use of abbreviations. de, GM, UR, RPT, NM, ES, QTH, KN are all commonly used. The table shows the meaning of common abbreviations used in CW.

The underlined codes are sent without a pause between the letters.

4. The exchange of information continues as for phone except that CW operators will use the abbreviated form of words on a regular basis during their exchange.

5. At the end of the contact you might finish as follows: "***... tnx His Name fer the QSO 73 es gud DX. His Call de My Call SK***"

Again several abbreviations were used but these are obvious I hope. "fer" instead of "for" is simply less keying and "gud" for "good" also saves the wrist.

Abbreviation	Use
AR	over
de	from or "this is"
ES	and
GM	good morning
K	go
KN	go only
NM	name
QTH	location
RPT	report
R	roger
SK	clear
tnx	thanks
UR	your, you are
73	best regards

Thanks to Herman KN5GRK and Stratos KE5DCI for the information on putting together this brochure.

Updated 9/5/2016

AARA
ACADIANA AMATEUR RADIO ASSOCIATION

AARA Technician Contest

Started September 1, 2011 - no ending date.. Contacts can be made with any class license operators on 2 meter & 440 repeaters, Simplex, IRLP, or EchoLink. Use "Honor System", no QSL cards needed to be exchanged. Use last letter in suffix of call. Submit log to Herman KN5GRK for a nice certificate.

NAME: _____ CALL: _____ DATE FINISHED: _____

	CALL:	NAME:	DATE:	TIME: (local)	MODE:
A					
B					
C					
D					
E					
F					
G					
H					
I					
J					
K					
L					
M					
N					
O					
P					
Q					
R					
S					
T					
U					
V					
W					
X					
Y					
Z					