

Introduction to Amateur Radio

“When all else fails,
Amateur Radio works!”

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MIRO Volunteer Chairman



Today's Agenda

- Overview of ham radio
- MIRO organization
- How to communicate
- Emergency operations
- Getting to know your radio
- Information sources

Welcome to Ham Radio

- Amateur radio is a “hobby with a purpose” - a valuable asset during times of emergency when traditional communication systems break down.
- Mandated by the Federal Communications Commission, one of the key purposes of Amateur Radio is to provide a “voluntary noncommercial communication service” to assist public safety agencies in the event of a disaster or as required. (47 CFR 97.1(a); 97.401(a)).

Ham Radio History

- Radio technology has been around for over 100 years
- Amateur radio operators have been involved, and innovating, from the very beginning
- “Amateur” has the same connotation as “amateur athlete”, meaning *we cannot accept payment for our services*
- There are numerous opinions on where the term “Ham” originated – but it’s not an acronym
- Ham operators have always been involved in global and local disaster aid with wireless communications
- Communications skills were incorporated from professional telegraphy and military communications training

Ham Talk

- It's a hobby, but also a fraternity.
- A ham call sign is like a secret handshake, and we have our own lingo
- Many terms came from abbreviations or “short codes” from the days of Morse code.
- Q Signals – QSO, QRM, QRN, QSL, QRT
- Abbreviations - 73, CUL, BTU, TNX, etc.
- Prosigns – SK, AR, etc.

Mercer Island Radio Operators

- MIRO was formed in 1993 to provide emergency communications backup to the city
- MIRO is an ARES/RACES organization
- You are welcome to join MIRO, but not obligated
- You are welcome to use the MIRO repeaters at any time except during a drill or a true emergency in which you are not participating
- Visit our website for more info!

www.mirohams.org

Resources you may use

- MIRO repeaters
 - 147.160 MHz, +0.6 MHz offset, 146.2 Hz tone
 - 440.150 MHz, +5 MHz offset, 103.5 Hz tone
- MIRO monthly practice net
- Other local repeaters, if you behave nicely 😊
- Simplex frequencies, within certain allocation boundaries – MIRO uses 147.440 MHz
- You can download the repeater and simplex frequency lists from www.mirohams.org

Getting into a Conversation

- On VHF/UHF to look for a QSO: “<Your callsign>, monitoring...”
- If you want to talk with someone specific, give their call sign followed by “This is <Your callsign>”
- To join a QSO: “Break”, wait for acknowledgement and then identify yourself
- It’s all about respect for others and good behaviors
- MIRO monthly practice net is a good exercise

ITU Phonetic Alphabet

A	Alpha	N	November	1	One
B	Bravo	O	Oscar	2	Two
C	Charlie	P	Papa	3	Three
D	Delta	Q	Quebec	4	Four
E	Echo	R	Romeo	5	Five
F	Foxtrot	S	Sierra	6	Six
G	Golf	T	Tango	7	Seven
H	Hotel	U	Uniform	8	Eight
I	India	V	Victor	9	Nine(r)
J	Juliet	W	Whiskey	Ø	Zero
K	Kilo	X	X-ray		
L	Lima	Y	Yankee		
M	Mike	Z	Zulu		

- You can practice by spelling out road signs when you drive

Using a Repeater

- Don't talk for very long or the repeater will time out. 1 to 2 minutes is a good rule of thumb.
- If you have more to say, say "Break" and un-key the microphone for a second or two.
- During a break, you should also listen for other stations who might want to break in.
- Identify yourself with your call sign at least every 10 minutes and also when you sign off.

Ending a QSO

- Always identify yourself by call sign and then say “Clear”
- If you want to invite others for another QSO, say “Clear and Monitoring”

Emergency Communications

- MIRO Emergency Net Procedures
- Message Passing
 - Formal – NTS Radiogram
 - Informal – “Tactical”
- City Message Forms – MIRO forms are blue

Setting Up Your Radio

- During our workshop today we will demonstrate creating a cheat sheet for setting up radios quickly
- Basic Tasks:
 - Simplex Frequency
 - Repeater Frequency, Offset, and Tone
 - Memory Storage and Recall

For More Information

- www.arrl.org
- www.mirohams.org
- Create an account and after approval you'll have full access.
- *Recommend you use your ham call sign for the account ID*
- Full access includes member roster list and other protected documents.

MIRO Documents

Mercer Island Radio Operators (MIRO)

neighborhood volunteer emergency communicators

Sign In

Links

- ❖ MIRO Home
 - ❖ Contact Information
- ❖ Current News
 - ❖ Events Calendar
- ❖ Information Library
 - ❖ Ham Radio Information
 - ❖ MIRO Locations
 - ❖ MIRO Winlink
 - ❖ [Public Documents](#)
- 🌐 City of Mercer Island
 - 🌐 [Emergency Preparedness](#)



MIRO File Downloads

These are public files that you are free to download and redistribute.

- To view, click the link in the **File** column.
- To download, right-click the link in the **File** column and choose "Save Target As..." from the pop-up menu.

File	Description	Date
MIRO_Newsletter.pdf	Current monthly newsletter.	Current
MIRO Fact Sheet.pdf	A one-page summary describing the MIRO organization.	May, 2011
MIRO Overview.pdf	Slideshow that describes amateur radio and MIRO's role in the Mercer Island emergency plan.	May, 2011
MIRO Winlink Assets.pdf	Current information for the MIRO Winlink services.	October, 2009
EmergencyResponseAreas.pdf	Emergency response region assignment map.	September, 2009
King County ARES Master List 13Nov08.pdf	Current King County ARES frequency list.	September, 2009
King County ARES Master List 13Nov08 Simplex.pdf	Current King County ARES simplex frequency list.	September, 2009
Radiogram.pdf	ARRL Radiogram form.	September, 2003
RadiogramUse.pdf	Instructions for using the ARRL Radiogram form.	September, 2003
MIRO Net Control procedures 4-16-2011.pdf	Guide for Net Control Operators.	April, 2011
Emergency Prep 2010.pdf	Emergency Preparedness Overview.	April, 2010

