

A decorative graphic on the left side of the slide, consisting of a network of thin, light blue lines that resemble a circuit board or a tree structure. These lines are connected to small, light blue circles at various points, creating a complex, branching pattern that extends from the top to the bottom of the frame.

CHOOSING YOUR FIRST RADIO

ED WOODRICK, WA4YIH



WHY DO I NEED A RADIO?

- In the past, there were no other options
- Today there are options
 - Echolink
 - DVDongle
 - Remote Bases
- Internet is not the best way to experience Amateur Radio



HOW MANY RADIOS DO YOU HAVE?

- 0
- 1
- 2-5
- 6-10
- 11+

I'M WEIRD

MY CHOICES OF RADIOS WILL BE
DIFFERENT FROM YOURS





WHAT DO
YOU WANT
TO DO?

Talk to folks near you

Talk to people far away

Send CW/Code

Digital Modes with a Computer

Digital Modes with Voice



OTHER THINGS TO DO

Talk on Satellites

Bounce Signals off the Moon

Travel and Operate on DX-peditions

Contest

Experiment

Many, Many Others

WHAT DO YOU NEED TO OPERATE

HF

- Antenna – \$50+
- Power Supply - \$100
- Radio - \$700+

VHF/UHF

- Radio - \$50+

WHAT BAND ARE YOU GOING TO USE?

High Frequency (HF)

- Historically known as Amateur Radio
- Talk around the state, around the world
- Propagation impacts operation

Very High and Ultra High Frequency (VHF/UHF)

- Popular since the 70's
- The same type of radios that many workers have on their belt
- Generally uses repeaters and range of about 40 miles

ELECTROMAGNETIC SPECTRUM



VHF/UHF OPERATION

- Recommend VHF and UHF Radio
- Programming Cable and Software
- Radio should come with
 - Battery
 - Charge
 - Antenna
- Line of Sight Communications



REPEATER OPERATION

- You talk to the repeater
- The repeater repeats your signals from a better location
- The repeater listens and talks at the same time
- Most repeaters require tone to reduce interference



VHF/UHF OPERATION

Programming Your Radio

Receive Frequency
Offset Frequency/Direction
CTCSS/PL/Tone
Programming Software

Operating

Listen Before You Talk
General Call
Joining a Conversation

FCC ID Requirements

Each amateur station must transmit its assigned call sign on its transmitting channel at the end of each communication, and at least every 10 minutes during a communication.

GARS REPEATERS

Frequency	Tone	Location	Notes
147.075 +0.600	82.5	Snellville	Skywarn and Gwinnett ARES Primary
147.255 +0.600	107.2	Snellville	
444.525 +5.000	82.5	Snellville	Yaesu System Fusion and FM
442.100 +5.000	100.0	Norcross	
442.325 +5.000	100.0	Buford	
53.110 -1.000		Snellville	
224.580 -1.600	100.0	Grayson	



DIFFERENTIATORS

Modes (APRS, Data Port, D-STAR, Fusion)

Programmability

Size

Familiarity

Cost

RADIO DEALERS

Retail

- Ham Radio Outlet
- GigaParts

Mail Order

- Ham Radio Outlet
- GigaParts
- Universal Radio
- MTC Radio

RADIO MANUFACTURERS

United States

- Ten-Tec
- Elecraft

Japan

- Icom
- Kenwood
- Yaesu
- Alinco

China

- Baofeng
- Wouxun
- Others



BAOFENG (AND OTHER CHINESE MANUFACTURERS)

- Cheap, Commodity Radios, Often Rebranded
- Quality and Support Debated
- User Interface not a priority
- CHEAP!



KENWOOD

- Focus on APRS
- New entry into JARL D-STAR
- TH-D74 Tribander with D-STAR Handheld
- TM-D710GA Dual Band Mobile



ALINCO

- DR-735T Dual Band Mobile
- DJ-500T Dual Band Handheld

YAESU



- Yaesu System Fusion Digital Mode
- FT-70DR Dual Band Handheld - Fusion
- FTM-3200DR Dual Band Mobile - Fusion



ICOM



- JARL D-STAR
- ID-51A PLUS Dual Band D-STAR
- ID-5100 Dual Band D-STAR

PRICES - HRO - 9/19/2107 RETAIL

Manufacturer	Model	Description	Price	Functionality
ALINCO	DJ-500T	2m/440 Dual band 5 Watt Handheld Transceiver VHF/UHF (Li-Ion 1500 mA)	\$129.99	Handheld
ALINCO	DJ-G7T	2M/440/1.2 HT with Wide Band RX (No Cell)	\$259.95	Handheld
ALINCO	DR-635T	2M/440 MHz 50 / 35 Watt Crossband Repeat 200 Mem Optional TNC	\$289.95	Mobile
ALINCO	DR-735T	Alinco Dual Band 2M/70CM Mobile Transceiver	\$329.95	Mobile
ICOM	IC-T70A-HD-15	144 / 430 MHz Dual Band Hand Held FM Transceiver - Analog - 5 Watts - w/ BP-265 & BC-193	\$199.95	Handheld
ICOM	ID-51A PLUS2 Gray Camo	144 / 430 MHz UHF/VHF D STAR Digital / Analog Hand Held Transceiver	\$484.95	Handheld
ICOM	IC-2730A DELUXE	144 / 430 MHz Dual Band 50 Watt FM Transceiver with MBA-5 Remote Head Bracket	\$349.95	Mobile
ICOM	IC-7100	HF / VHF / UHF Mobile Multimode Transceiver – D-STAR - Touchscreen - DV	\$1,019.95	Mobile
ICOM	ID-4100A	DUAL BAND VHF UHF DSTAR GPS MOBILE TRANSCEIVER	\$389.95	Mobile
ICOM	ID-5100A DELUXE	144 / 430 MHz Dual Band D STAR Mobile - W/ MBA-2 Mounting Bracket	\$499.95	Mobile
KENWOOD	TH-D72A	144 / 430 MHz Dual Band FM Hand Held with Integrated GPS / APRS	\$439.95	Handheld
KENWOOD	TH-D74A	144/220/440MHz Tri-Band Handheld With D-Star & APRS	\$589.95	Handheld
KENWOOD	TM-281A	144 MHz 65 Watt FM Mobile Transceiver - 200 Memories - with Weather Alert	\$157.95	Mobile
KENWOOD	TM-D710G	144 / 430 MHz FM Transceiver / APRS / TNC - Built In GPS / Echolink Ready	\$599.95	Mobile
KENWOOD	TM-V71A	144 / 430 MHz Dual Band 50 Watt FM Transceiver with Echolink Interface	\$359.95	Mobile
Wouxun	KG-UV6X	136-174 / 375-512 MHz Commercial Dual Band VHF/UHF 200 Channel Portable Radio - 5W VHF / 4W UHF	\$159.95	Handheld
Wouxun	KG-UV9D-Plus	KG-UV9D Plus 999 Channel Dual-Band Handheld - 7-Band Receive	\$179.95	Handheld
YAESU	FT-60R	144-148 / 430-450 MHz Dual Band Hand Held FM Transceiver - 5 Watts - 1000 Memories - Wideband RX	\$154.95	Handheld
YAESU	FT-65R	2 Meter/70cm Dual Band FM Handheld - Compact, Light and Very Rugged	\$139.95	Handheld
YAESU	FT-70DR	C4FM/ FM 144/ 430MHz Dual Band 5W Handheld Transceiver	\$199.95	Handheld
YAESU	VX-6R	144 / 220 / 430 MHz 5 Watt / 1.5W (220) Hand Held FM Transceiver - JIS7 Submersible	\$239.95	Handheld
YAESU	FT-8900R	29 / 50 / 144 / 430 MHz Quad Band FM Mobile Transceiver - Cross Band Full Duplex - 50 W (35 W UHF)	\$329.95	Mobile
YAESU	FTM-100DR	144 / 430 MHz Dual Band C4FM Digital / Analog FM Mobile Transceiver - 50 Watts	\$309.95	Mobile
YAESU	FTM-400XDR	144 / 430 MHz Dual Band C4FM Digital / Analog FM Mobile Transceiver - Improved GPS - 50 Watts	\$605.95	Mobile

QUESTIONS

