

A hand holding a Baofeng HT radio against a cosmic background with a galaxy and a planet.

# ***BEYOND THE BAOFENG:***

**How Much HT Do I Need?**



## ***HT? PORTABLE? HANDHELD RADIO? ...WALKIE-TALKIE***

HT: Handheld Transceiver

*Handheld two-way radios were developed by the military from backpack radios carried by a soldier in an infantry squad to keep the squad in contact with their commanders. The Canadian inventor Donald Hings was the first to create a portable radio signaling system for his employer CM&S in 1937. He called the system a "packset", although it later became known as a "walkie-talkie".*

## ***WHAT SHOULD I CONSIDER?***

*Features and cost can vary significantly between handheld radios. Deciding your requirements can help you narrow the selection to a few that deserve a closer look.*

- Budget: \$0-50, \$50-150, \$150-350 or Beyond?
- Bands: 2m, 70cm? Single Band? Tri-Band? Quad?
- Power: Output: 5w? More? Less?
- Operation: Analog or Digital, Basic FM? C4FM? DSTAR? DMR? (etc)
- Extended Functions (cont.)



## WHAT (ELSE) SHOULD I CONSIDER?

### Additional Functional Capabilities:

- Global Positioning System, Compass
- Automatic Packet Reporting System (APRS, DPRS)
- Bluetooth Capability
- Charging Method (USB, USB C, Cradle, Barrel Plug)
- Built in TNC Modem (Kiss TNC for digital interfacing)
- Touchscreen, Screen Resolution and Type
- IPX Rating for Weather Resistance
- Wideband Receive
- Programming Method (Wireless, Wired, Manual Entry)
- Air Band, FM Radio
- Mars/Cap mod available?
- App Support for Mobile



## ***BEYOND THE FEATURE LIST:***

*Although buying an HT with every feature under the sun can be an awesome decision, consider some of these details as part of your decision-making process:*

### **Ease/Familiarity of Use:**

- Graphical Displays can be simpler to navigate than deep number-list menus
- Proper Documentation (Advanced Manuals?)
- Many manufacturers recycle user experiences, once familiar this can make operation simpler
- Are all of the features accessible via the HT? (VR-N76)

### **Programmability:**

- Do I need a special cable?
- Do I need third party software? RT Systems?
- Can I program from my mobile device?

### **Reliable Manufacturer:**

- Warranty Support?
- Firmware Upgradability
- Parts Support (consumables like batteries, particularly)

### **Community Support:**

- Particularly interesting on import HT's where enterprising hams are creating alternative firmware, software with extended features.



# PROGRAMMING

Potentially one of the most important aspects of fully-utilizing your new HT.

## Manufacturer Software:

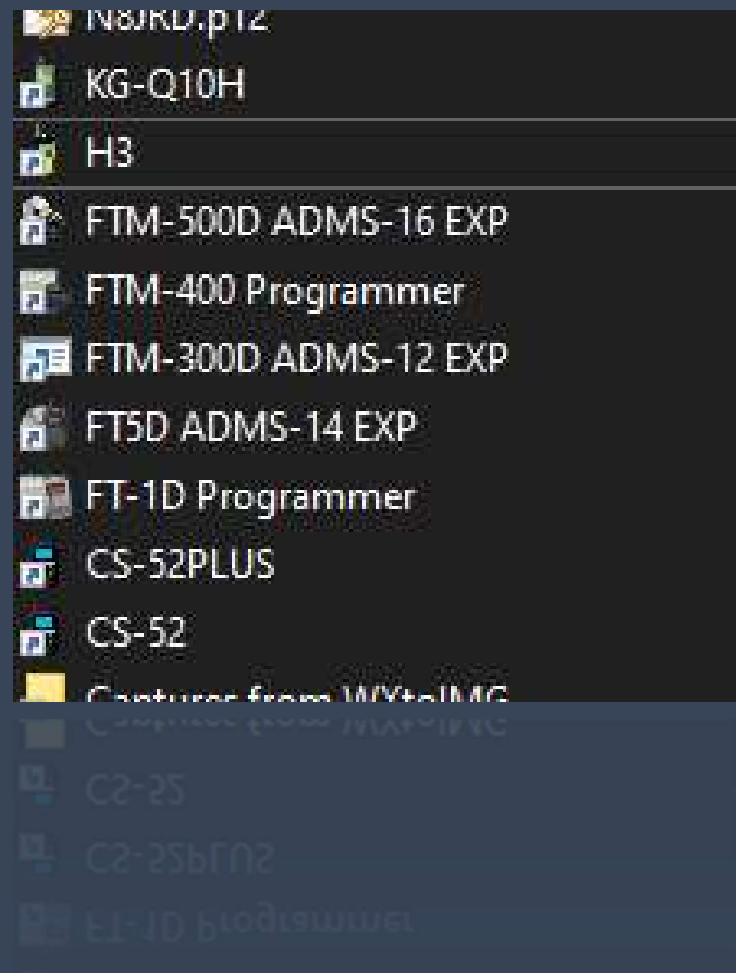
- +Generally free
- +Cloning capability for settings/customized modes
- +Support for unique Memory Architecture
- May be difficult to export in universal formats

## Free Universal Software (Chirp):

- +Free
- +Broad range of devices supported, easier to clone across unlike hardware
- Compatibility with unique features may be limited

## RT Systems:

- 25.00 a license
- Single platform, Multi costs more
- +Highly interoperable between HT Models
- +Excellent Support for unique features by model
- +Easiest to update/modify large Memory Lists.



# THE CHART.

<\$200



HALO  
\$600+

<\$50

<\$400





## ***BUDGET: A POPULAR STARTER, THE UV-5R***

*How much do I have to spend?*

More likely than not, you'll find that a local club or ham might have a UV-5R that they'll donate to your cause. If you need to order one, **20 dollars** is all it costs to get on the air! At the end of the meeting, we'll give THIS one away...

### ***Baofeng's Venerable UV-5R:***

- Dual Band (VHF 144mhz, UHF 440mhz)
- Analog HT
- Dual Receive with CTCSS/CDCSS and A/B independent bands
- Includes Battery, Charging Dock, and Antenna
- Simple interface two-line Matrix Display
- CHIRP Compatible Programming, with inexpensive PL2303 Cable
- 4-5watt Output
- Broad community support
- Many clones of various quality and adherence to FCC Emissions Guidelines!





## ***BUDGET: PERHAPS YOU CAN DO BETTER?***

*For \$30 Dollars, Consider the TIDRADIO TD-H3 (or H8)*

*TidRadio TD-H3 is a great, small form-factor HT and an incredible price.*

- Dual Band (VHF 144mhz, UHF 440mhz)
- Analog HT
- Dual Receive with CTCSS/CDCSS and A/B independent bands
- Dual PTT for A/B Band Access
- 6m RX, FM Radio Rx, Airband, 2m, 174-350mhz Rx, 400-470(Tx/RX), up to 600mhz
- Includes Battery, Charging Dock, and Antenna
- High Contrast, Informational Color TFT Disply
- USB C Programmability, Charging
- Bluetooth Memory Programmability
- Firmware Upgradable (Alternate Firmware available)



## ***MID-RANGE: 4 IS MORE!***

*A Club favorite, this quad-band HT is built well – has some nice customizable features and won't break the budget at ~200 bucks.*

### ***Wouxun's KG-Q10H***

- Quad Band (50mhz, 144mhz, 220mhz, UHF 440mhz)
- Analog HT
- Dual Receive with CTCSS/CDCSS and A/B independent bands
- Dual PTT for A/B Band Access (strangely, reversed)
- Includes Battery, Charging Dock, and Antenna
- High Contrast, Informational Color TFT Display w/ Custom Color options
- USB C Charging
- Requires a standard Kenwood Style Dual-Jack programming cable (not included)

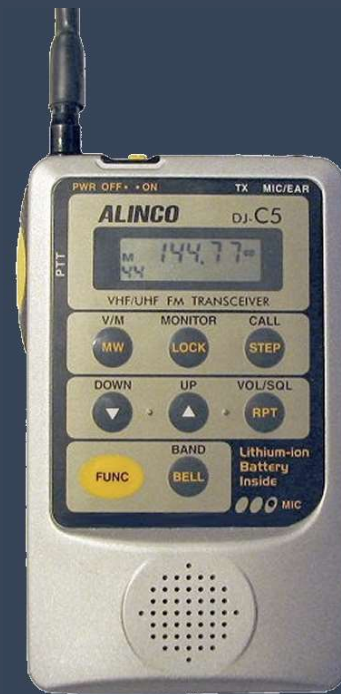
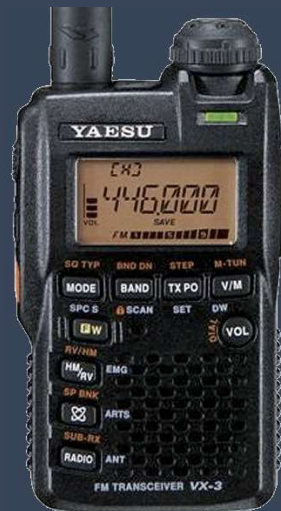
ALSO consider: Wouxun's Brand KG-935H (Similar in many regards, 3-band)



## ***MID-RANGE: USED JAPANESE MANUFACTURED***

*In the Midrange, it's also possible to find some excellent quality, older-model HTs.*

*Old model HTs can often meet all of your needs, but may lack things like the fancy-color display or easy access to programming features. Consider these where the unique features, novel sizes, or generally unique design may be appealing with the quality of a trusted brand like Yaesu, Icom or Kenwood.*



## ***HIGH-COST: NBJRD'S ALL AROUND PICK***

*Reliable, Japanese manufacturing. Easy programming. Many features. Competitive price!*

*Yaesu's venerable FT-5DR. \$359 Dollars, well spent.*

- Dual Band (VHF 144mhz, UHF 440mhz)
- Digital C4FM (System Fusion), Wires X
- Real Dual Band Operations (V+V, U+U, V+U, U+V)
- APRS Capable
- GPS Enabled
- Color Touch Screen with Band-Scope
- Includes Battery, Antenna and Charging Adapter, Holster
- SD Card for Memory Management
- Bluetooth
- Firmware Upgradable
- Free, ADMS Programming Software



**NBJRD'S PICK**

## HALO HANDHELDS: MONEY IS NO OBJECT

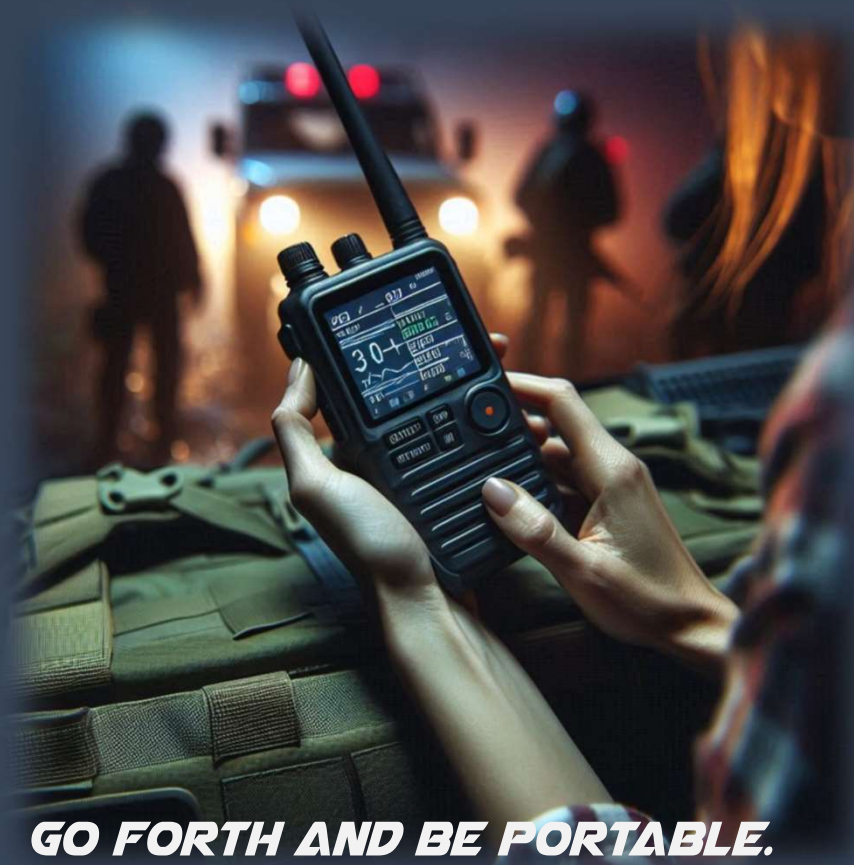
*These handhelds are extremely expensive, include a broad set of features and have a price tag to match. Generally, there are better values available unless you absolutely want the top-end portable radio.*

### Kenwood's TH-D75A

- Tribander (144mhz, 220mhz, 440mhz)
- Digital support for DSTAR
- Real Dual Band Operations (V+V, U+U, V+U, U+V)
- APRS Capable, Digipeater!
- GPS Enabled, Compass
- KISS TNC built in
- Color Screen
- Includes Battery, Antenna and Charging Adapter
- SD Card for Memory Management
- Bluetooth
- USB-C
- Firmware Upgradable
- Free Kenwood Programming Software







***GO FORTH AND BE PORTABLE.***