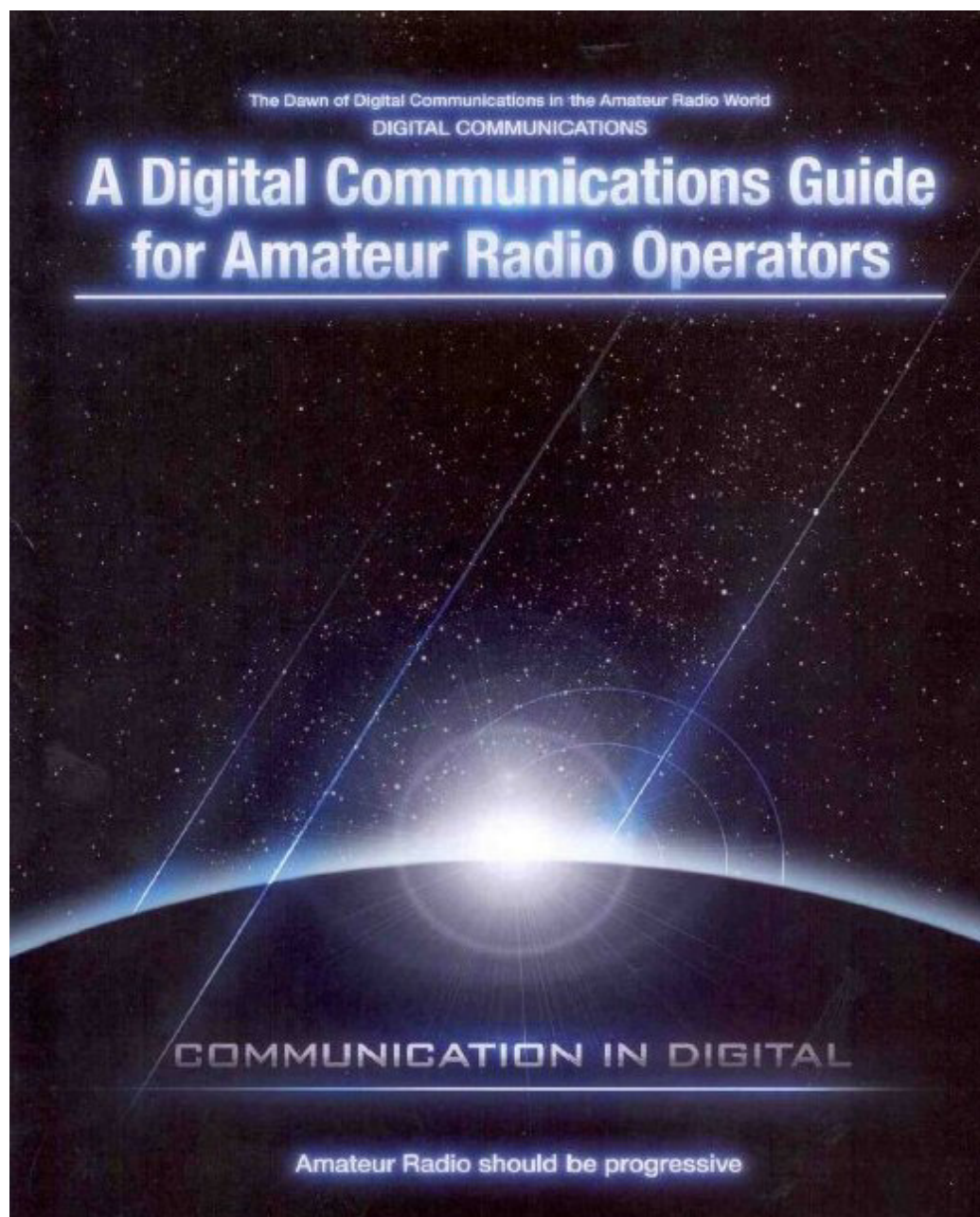




# Yaesu System Fusion



NJ3U – Rory David Shaffer  
Thanks to KC3BRA Jim Fisher  
Yaesu Images Used



# Topics

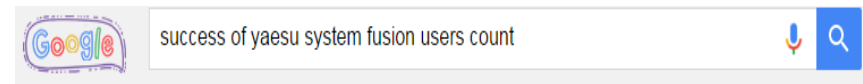
- Yaesu Fusion - What is it and Who is Using It ?
- Interesting Features of Fusion –
  - Text, Images, Sounds and More
- WiresX - RF and Internet Meet to Extend Your Range
- Questions / Answers

# Yaesu Fusion – What is it and Who is Using It ?



- Yaesu entry into the digital market for amateur use
- Born from Japanese ham marketplace circa 1998
- Provides for mixed mode use FM or Digital
- Full line of radios including HT, Mobile, Base and Repeaters

## DVRA and Thousands Globally



All News Images Videos More ▾ Search tools

About 19,100 results (0.49 seconds)

Welcome to Yaesu.com

<https://www.yaesu.com/> ▾

System Fusion - An Invitation to the Future. Fusion ... Due to amazing support from the Amateur Radio community and the great success of the DR-1X Installation ...

System Fusion - Delaware Valley Radio Association

[www.w2zq.com/system-fusion/](http://www.w2zq.com/system-fusion/) ▾

DVRA W2ZQ System Fusion repeaters. ... Many UHF/VHF users have long lamented the limitations of line of sight .... This months Repeater Talk article we will focus on the recent success of our Yaesu System Fusion Repeaters. Since it's such ...

EchoLink or D-Star? - KB6NU's Ham Radio Blog

[www.kb6nu.com/echolink-or-d-star/](http://www.kb6nu.com/echolink-or-d-star/) ▾

Dec 3, 2014 - If the measure of success is the number of users, then EchoLink would ... D-STAR numbers cannot be measured by counting repeaters as there ... in the process of bringing up a Yaesu Fusion System repeater (a great buy for ...

Yaesu System Fusion Introduction - YouTube

<https://www.youtube.com/watch?v=tNjgHUhhMmA>

May 19, 2014 - Uploaded by GigaParts, Inc.

The Yaesu DR-1X repeater is now available at

<http://www.gigaparts.com/SystemFusion> For everything Amateur



# Yaesu Fusion – What is it and Who is Using It ?

**DVRA and Thousands Globally**



**View  
PDF**

- 1) Click the download button
- 2) This will take you to our web page
- 3) Download the FREE product

NOT LOGGED IN!

[North American Repeaters](#) | [Worldwide Repeaters](#) | [FAQ](#)



Find specialized searches and information for Yaesu System Fusion-equipped repeaters.

Newest Yaesu System Fusion Repeaters		
Click a row to view the repeater		
	Urbana	Ohio (US)
	Mountain View	Arkansas (US)
VA3EOD	Dryden	Ontario (CA)
W4NV	Moyock	North Carolina (US)
XE1EFQ	CDMX	Distrito Federal (MX)
IR3B	Padova	Italy (IT)
IR3UB	Padova	Italy (IT)
F1ZIZ	Limoges	France (FR)
KC7MRQ	Ronan	Montana (US)
W8YZ	Monroe	Michigan (US)

Welcome to the Yaesu System Fusion Area

**Total worldwide tracked repeaters: 1077**

Search for Yaesu System Fusion-equipped Repeaters  
(North America)

Choose State or Province Choose Band

--ALL-- --ALL--

Search Repeaters

Search for Yaesu System Fusion-equipped Repeaters  
(Outside North America)

Choose Country Choose Band

--ALL-- --ALL--

Search Repeaters

# Yaesu Fusion –

What is it and Who is Using It ?

- 147.105 W2MER
- 146.46 Sarnoff
- 444.800 Phil Mont
- 448.225 Penn Wireless
- 145.150 Berks Radio Club
- 146.7450 KX3B Buck

Repeater Talk

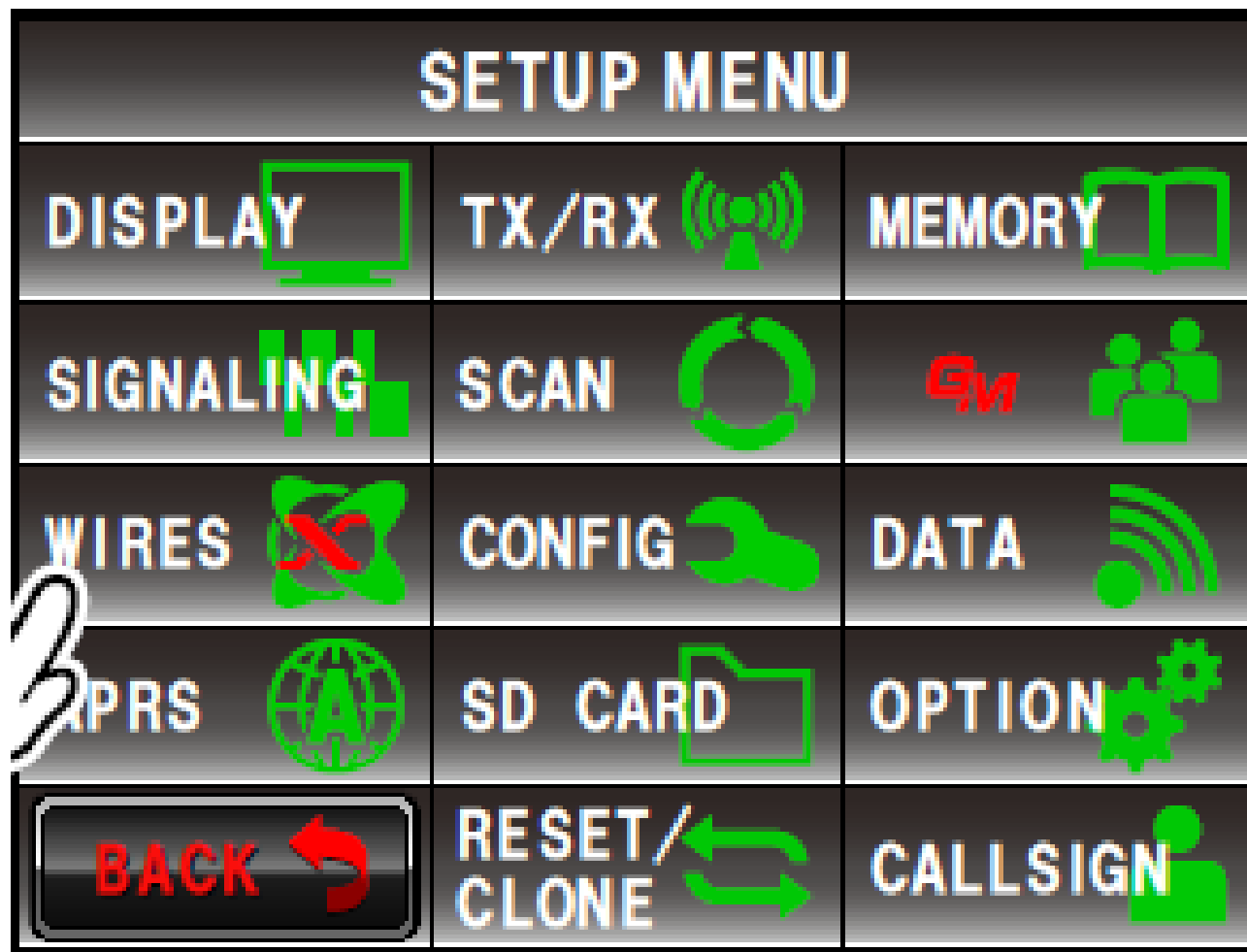


# Interesting Features of Fusion

- Traditional FM Plus AMS
- C4FM Digital – Two Modes ( Great Voice Quality )
- Location Services
  - Ranging / Location
  - Group Monitoring
- Radio over IP (RoIP)
- Image Capture
- SD Card Programming

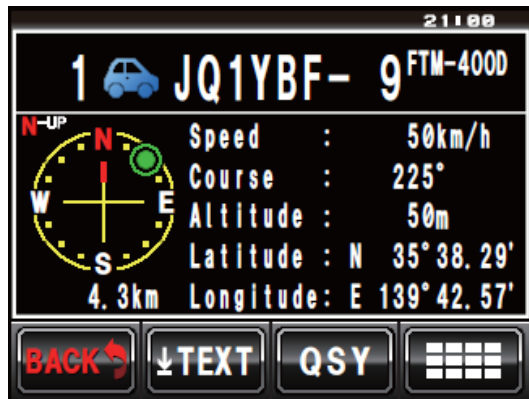


# Setup Menu Opens the Configuration

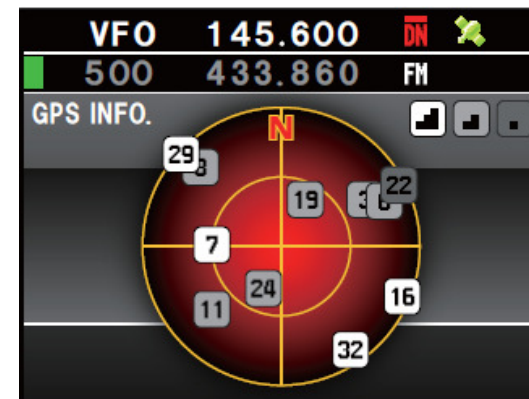




# Other Interesting Features



APRS



Satellite Cluster

Timer



Group Monitor

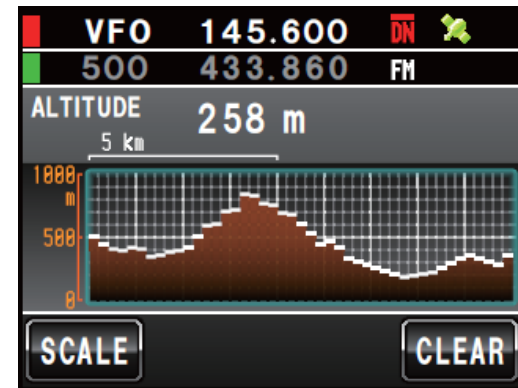




# Other Interesting Features

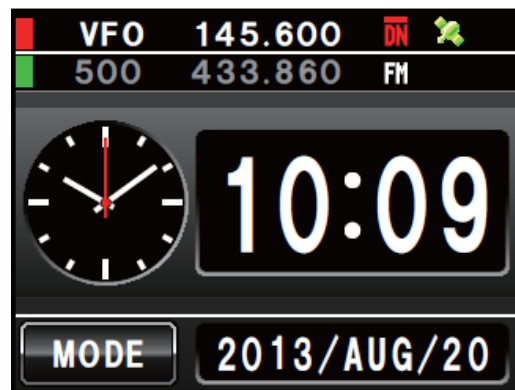


Ranging to Other Users

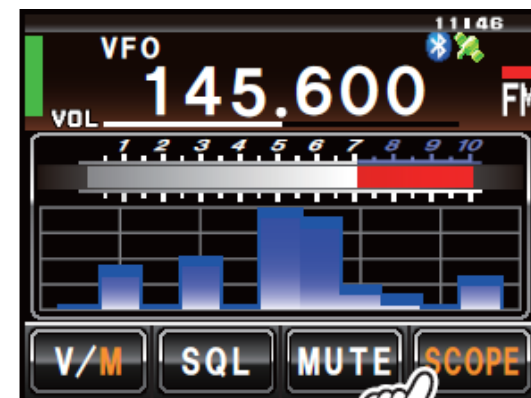


Altitude Tracking

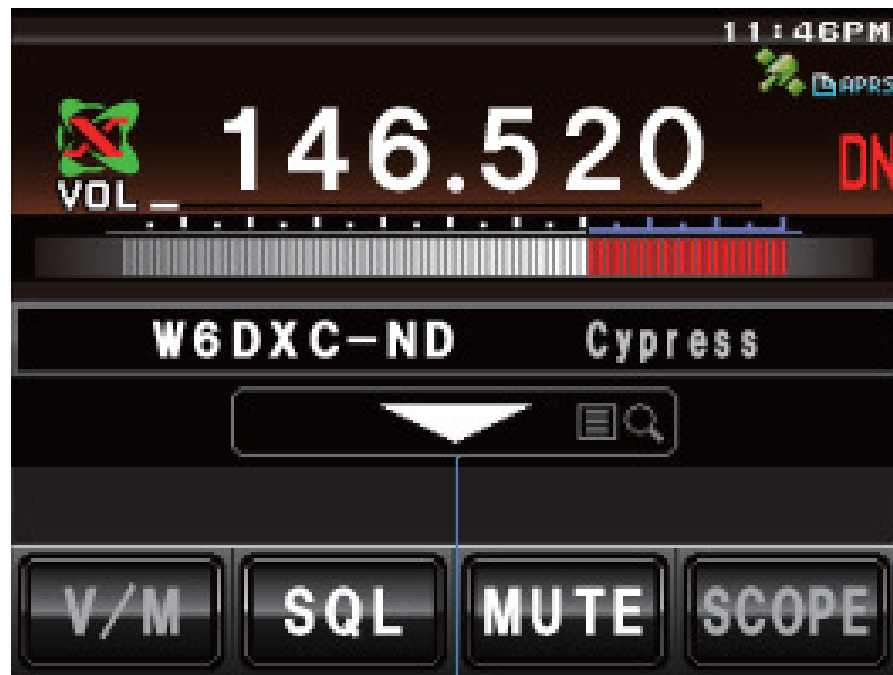
Clock



Band Scope



That  Key Activates Smart Access



No Need for DTMF Codes



# Within 30 Miles

Frequency	Offset	Tone	Call	Location	ST/PR	Use	VOIP	Mi ▼	Dir	⌵
147.1650	+0.6 MHz	162.2	K3JJO	Horsham	PA	OPEN		2.0	N	●
146.7900	-0.6 MHz	131.8	W3SK	Southampton	PA	OPEN		4.6	E	●
448.2250	-5 MHz	131.8	W3SK	Southampton	PA	OPEN		4.6	E	●
447.4750	-5 MHz		K3PDR	Wyndmoor	PA	OPEN		5.8	SW	●
444.8000	+5 MHz	186.2	W3QV	Roxborough	PA	OPEN		9.0	SW	●
146.6850	-0.6 MHz	146.2	WM3PEN	Philadelphia, University of Pennsylvania	PA	OPEN		14.2	SSW	●
443.9500	+5 MHz	131.8	K3DN	Hilltown	PA	OPEN		14.9	NNW	●
145.3700	-0.6 MHz	91.5	NJ2CH	Cherry Hill	NJ	OPEN		15.7	SSE	●
444.9000	+5 MHz	131.8	K3RJC	Cherry Hill	NJ	OPEN		15.7	SSE	●
447.3750	-5 MHz	100.0	W3DI	Lawrence Park	PA	OPEN		17.0	SW	●
447.7750	-5 MHz	146.2	NJ2GC	Gloucester City	NJ	OPEN		17.8	S	●
146.6700	-0.6 MHz	131.8	W2ZQ	West Trenton	NJ	OPEN		18.0	E	●
445.6750	-5 MHz	131.8	WB3JOE	Paoli, Hospital	PA	OPEN		20.0	WSW	●
147.2250	+0.6 MHz	192.8	WA2WUN	Runnemede	NJ	OPEN		20.8	S	●
147.1050	+0.6 MHz	123.0	W2MER	Lawrenceville	NJ	OPEN		23.1	E	●
444.7500	+5 MHz	103.5	W3AI	Sellersville	PA	OPEN		23.2	NNW	●
442.6500	+5 MHz	131.8	W2ZQ	West Trenton	NJ	OPEN	E	24.9	E	●
442.1000	+5 MHz	131.8	W2MMD	Pitman	NJ	OPEN		28.8	S	●
444.1000	+5 MHz	151.4	KA3NRJ	Allentown, South Mountain	PA	OPEN	E	33.1	NNW	●
146.9550	-0.6 MHz	131.8	WA3UYJ	Wilmington	DE	OPEN		35.7	SW	●

- ID list: [https://www.yaesu.com/jp/en/wires-x/id/id\\_usa.php](https://www.yaesu.com/jp/en/wires-x/id/id_usa.php)
- Room list: [https://www.yaesu.com/jp/en/wires-x/id/active\\_room.php](https://www.yaesu.com/jp/en/wires-x/id/active_room.php)

# Currently Available Fusion Radios



FT1D  
FM/C4FM  
5 Watt Output  
2 mt – 440 mhz  
GPS Built In  
Dual Band  
APRS  
Camera Mic Accs



FT2DR  
FM/C4FM  
5 Watt Output  
2 mt – 440 mhz  
GPS Built In  
Dual Band  
APRS  
Camera Mic Accs

Big Difference  
Form Factor Touch Screen  
Display Monochrome Photos

# Currently Available Fusion Radios



FTM-100DR  
FM/C4FM  
5/20/50 Watt Output  
2 mt – 440 mhz  
GPS Built In  
Dual Band / Single Receive  
APRS  
Detachable Faceplate  
Does Not Support Camera Mic



FT400XDR  
FM/C4FM  
5/20/50 Watt Output  
2 mt – 440 mhz  
GPS Built In  
Dual Band  
APRS  
Camera Mic Accs

Big Difference  
Form Factor Touch Screen  
Display Color Photos  
Advanced Monitoring

# Currently Available Fusion Radios



FT-991

All Band All Mode (CW,SSB,AM,FM,C4FM,Packet  
50/100 Watt Output

DC Power Only

Dual VFOs & Antenna Jacks

USB Connectivity

Color Display Touch Panel Control

Antenna Tuner

Scope / Waterfall / Spectrum

Does Not Support Camera Mic / Image Display /SD

Big Difference

All Mode Radio

100 Watts

Form Factor Touch Screen

Display Color Photos

# Currently Available Fusion Radios



DR1X

Color Touch Screen Programmable

FM/C4FM/AMS

5/20/50 Watt Output

Dual Band 2/440

Big Difference

AMS Capable Operation

Form Factor Touch Screen

AC/DC Capable

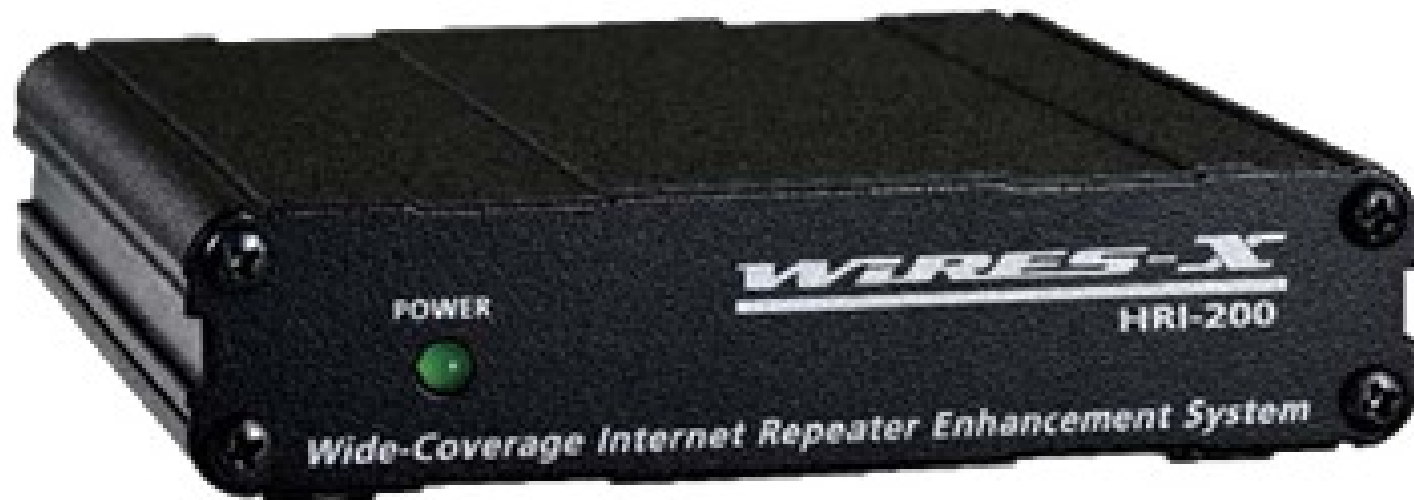
Upgradable Firmware



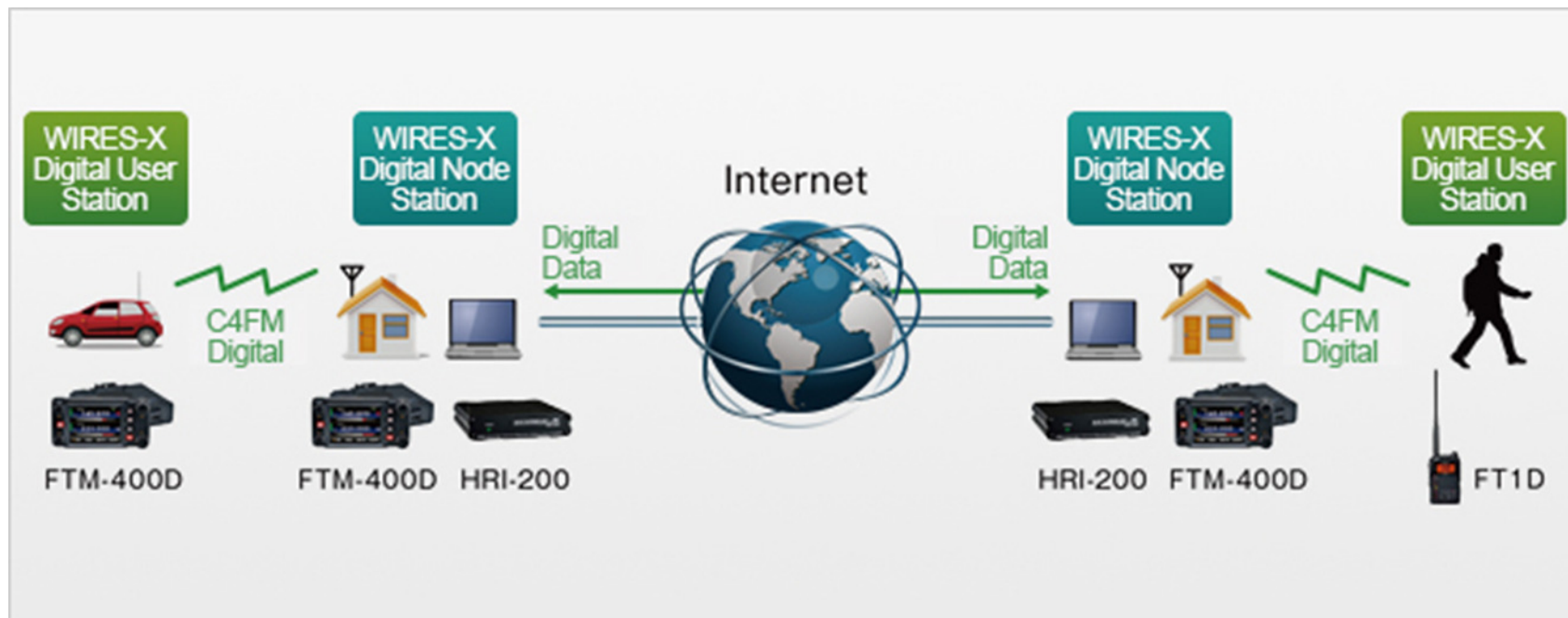
# What is Wires X ?



WIRES (Wide-coverage Internet Repeater Enhancement System) is an Internet communication system which expands the range of amateur radio communication. For WIRES-X, an amateur node station connecting to the Internet is used as the access point and connects the wireless communication to the Internet. Users' stations can communicate with other amateur stations all over the world using a node within the radio wave range.

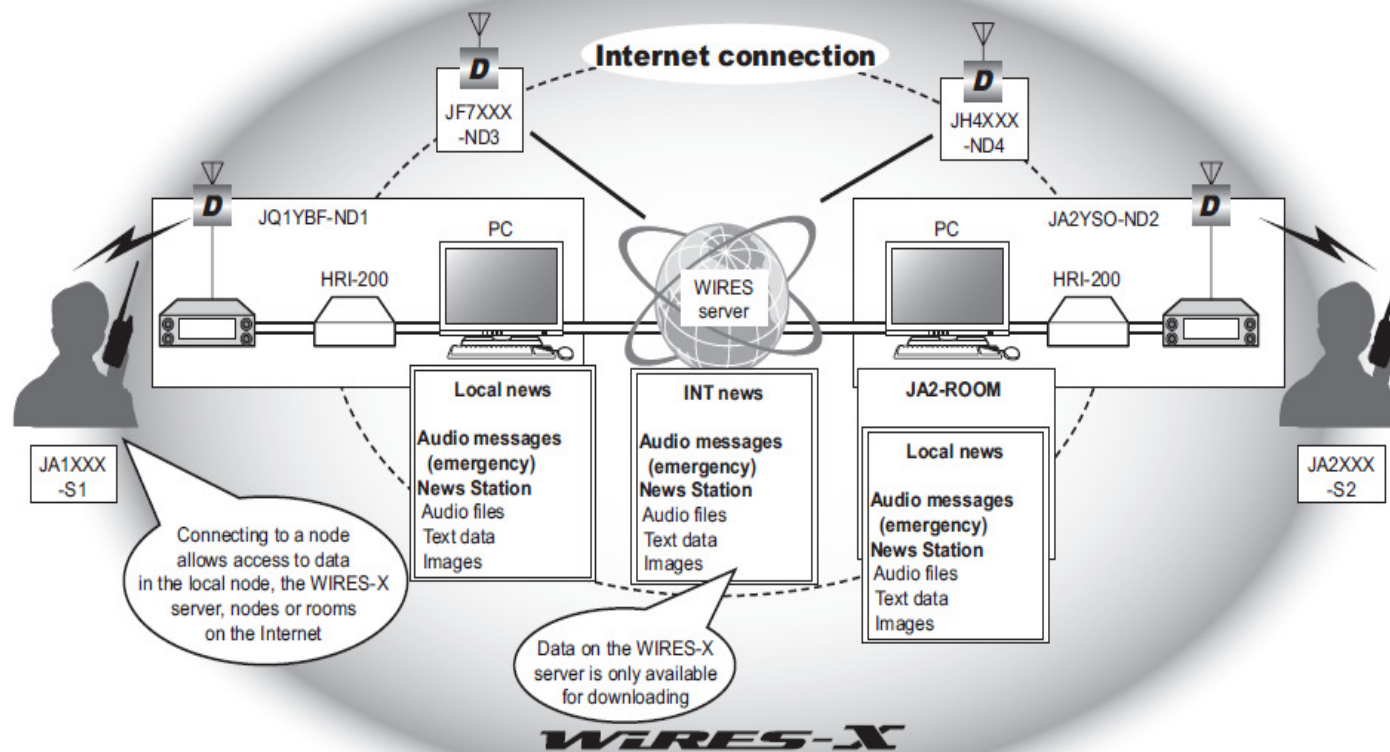


# Wires X Concept



Similar concept as Echo Link, IRLP, others  
Radio Over / With IP  
No Need for DTMF Codes (Smart Access)

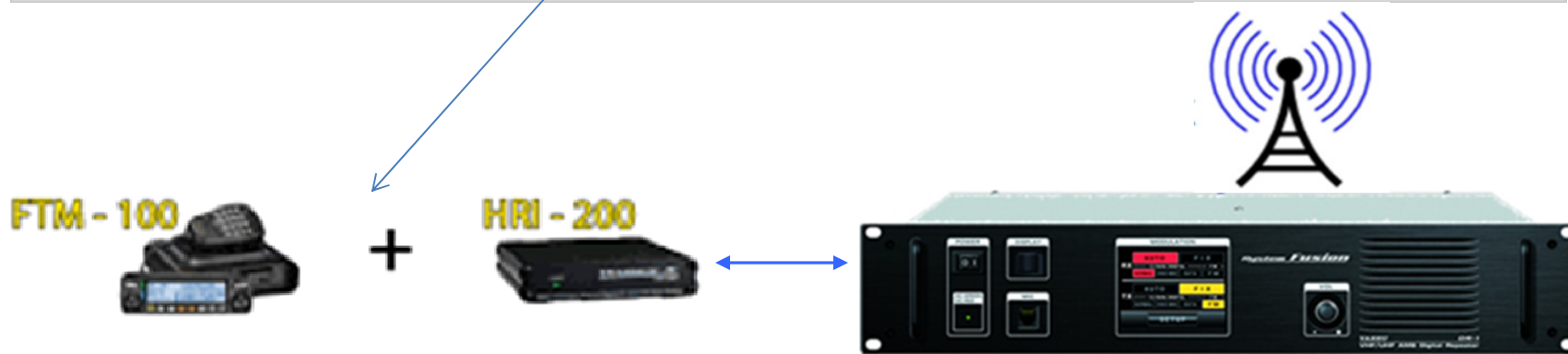
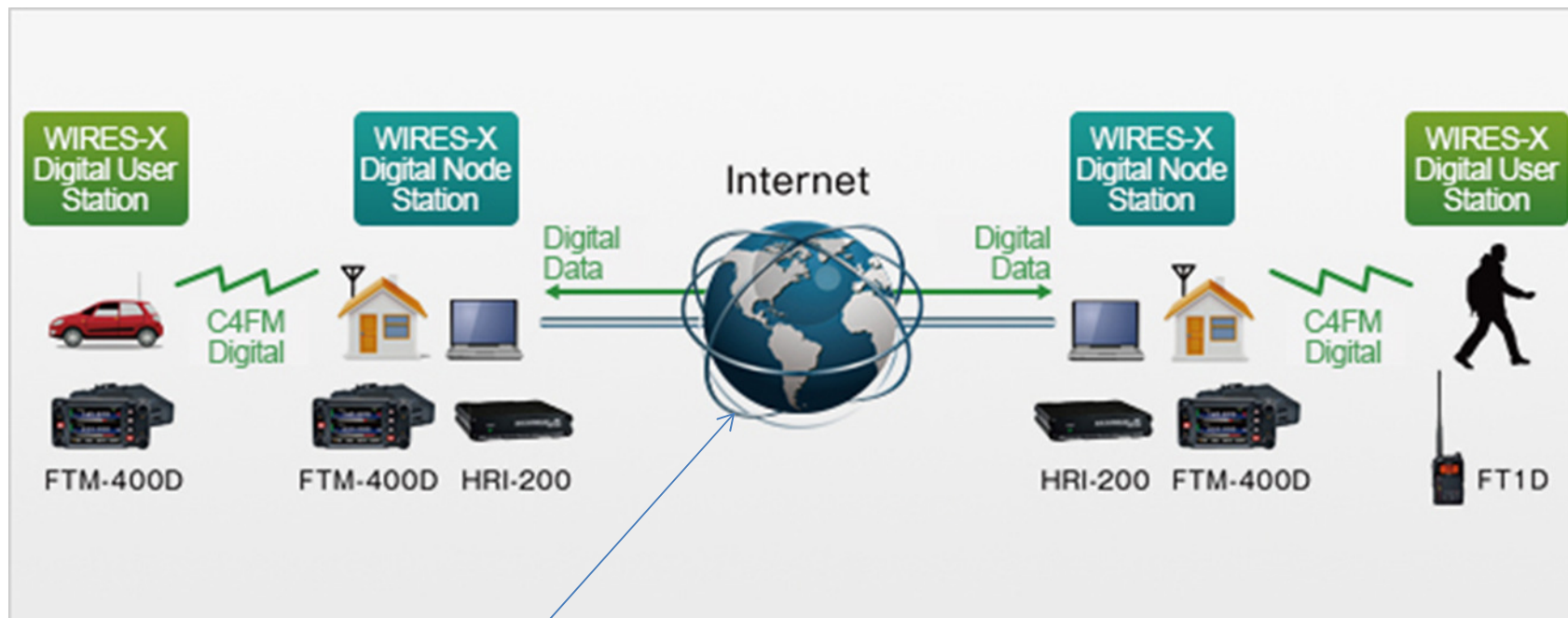
# Wires X News Rooms



# News Rooms

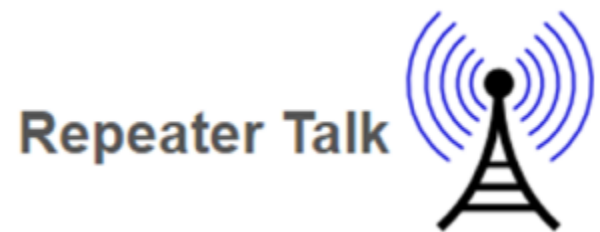


# Current Wires X Deployment Option



# Topics

- Yaesu Fusion - What is it and Who is Using It ?
- Interesting Features of Fusion –
  - Text, Images, Sounds and More
- WiresX - RF and Internet Meet to Extend Your Range
- Questions / Answers



# Thanks for Your Attention - 73

