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HVDN:LIVE IC-9700 & IC-705 PUNCH OUT

Presentation Goal

Most **VHF & UHF** amateur radio activity is centered around repeaters. This brief visual tour explores real world **non-repeater focused activities** through two unique radios, the **Icom IC-9700** and the much more portable **Icom IC-705**.

Presentation Overview

- Why HVDN:Live?
- Introduction of our speakers
- Why consider the Icom IC-9700
- Why consider the Icom IC-705
- Discussing second thoughts
- Was it easy to do.....
- HW & SW tips and tricks
- Remote operation comments
- Questions & Answers



The poster features a black header with the HVDN logo (a circuit diagram), a megaphone icon, the text "SPONSOR US", and the ICOM logo. Below the header is a blue background with a pixelated illustration of a boxing ring. A large, muscular boxer in red gloves is in the center, and a referee in a white shirt and red cap is to the right. The text "HVDN: LIVE" is written in large, bold, purple and red letters across the center. Below it, "MARCH 15TH 8:00 PM EST" is written in black. A small "Fight" speech bubble is near the referee. At the bottom center, there is a small pixelated figure of a person.

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SPONSOR US

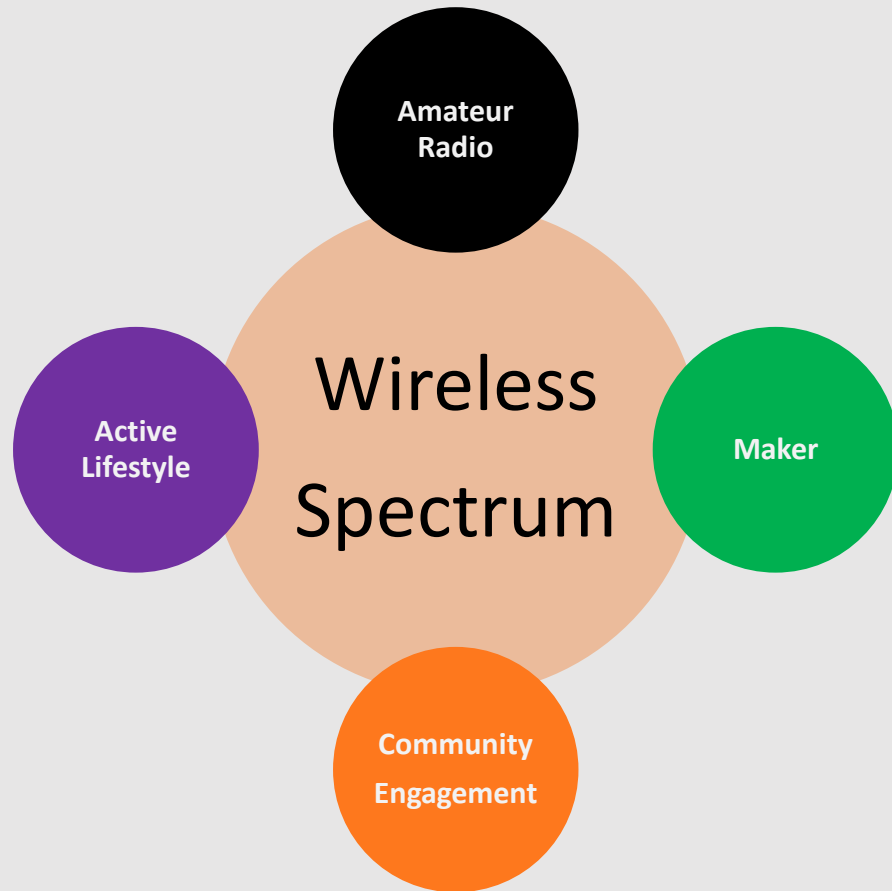
ICOM

HVDN: LIVE

MARCH 15TH 8:00 PM EST

Convergence

When HVDN says “**convergence**” what does that mean?



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Introductions

Co-Presenter
Steve Bossert K2GOG



HVDN:LIVE
March 15th, 2021

Moderator
Neil Goldstein W2NDG



Co-Presenter
Jim Miller WA2UMP



Warning! What we will NOT focus on.....

1. We are not going to display or discuss deep dive technical specifications of each radio. There are other places for that, but feel free to ask during Q&A at the end.
2. We are not going to spend much time on focused basic functions. There are other places for that too, but feel free to ask during Q&A at the end.
3. We are not going to make this sound like an Icom endorsement. These radios are unique and is why we chose them.
4. We are not going to cover things basically covered everywhere else in one short presentation!

IC-9700 compare to IC-705: Is it a fair fight?

Same Freq Stability: Less than ± 0.5 ppm (14°F to $+140^{\circ}\text{F}$)

4.7 kg (10.4 lbs.)

1.1 kg (2.4 lbs.)



240mm

94 mm



82 mm

200mm

Why consider the Icom IC-9700

Pros:

1. Intuitive touch screen interface
2. State of the art - SDR direct sampling on 2m & 70cm
3. Eye catching design - Spectrum Scope & Waterfall
4. Fun & digital flexibility – D-Star, FT-8, WSJT and all other popular digital data modes
5. Variable & high transmit power: 2m 100W, 70cm 75W & 10W 23cm
6. Extreme Stability - 1Hz PPM with Optional GPS discipline (Leo Bodnar \$145)
7. Full Duplex (TX on one band and RX on another at the same time)
8. Dual Watch (Monitor two same band frequency at same time)
9. Satellite operation mode (makes use of full duplex and computer control)



Why consider the Icom IC-9700

Cons:

1. Expensive - \$1500 USD
2. Stability comes at cost – 70cm & 23cm requires GPS
3. Not a “Shack-in-the-Box” radio, unless you only care about VHF/UHF
4. Full duplex only on separate bands
5. Maximum enjoyment requires computer integration
6. Antenna connectors and related control

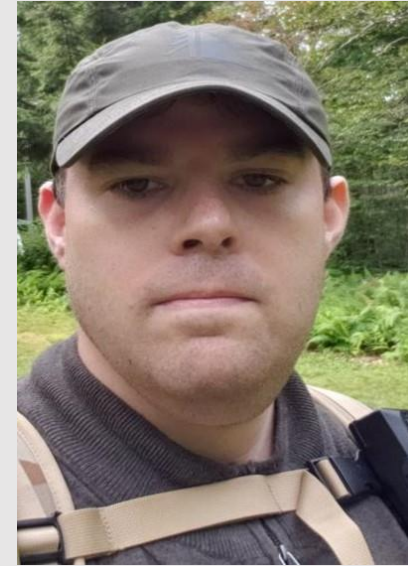


Why consider the Icom IC-705

Pros:

1. Intuitive touch screen interface
1. Low power consumption (Down to 7 volts with reduced 5 W output)
2. Power & charging flexibility (USB, DC & battery)
3. 2m & 70cm plus equivalent HF coverage of the IC-7300 at up to 10W at 12 V+
4. Bluetooth for remote audio and CI-V control
5. Wi-Fi for full remote operation from home or away (Ethernet Cat5 in IC-9700)
6. Split mode for casual non full duplex satellite operation
7. Extended non-amateur band reception capabilities
8. Customization with aftermarket accessories

Steve Bossert K2GOG



Why consider the Icom IC-705

Steve Bossert K2GOG



Cons:

1. Expensive - \$1300 USD
2. A portable field radio and no AX.25 APRS
3. Not as rugged as competitors (Yaesu FT-818, Xiegu X5105, Elecraft KX3)
4. For HF Users: No auto tuner if comparing to Xiegu X5105 and Elecraft KX3
5. Satellite operation is only semi-duplex
6. Expensive Icom accessories (Backpack, tuner, batteries, etc)
7. Not a “Shack-in-the-Box” radio, unless 10W is enough....
8. D-Star! There, I said it!!



IC-9700 is different than the IC-705: Summary



Differences



- \$1500
- Base Station
- SDR – Direct Sampling
- UHF/VHF Only
- 100W 2m, 75W 70cm, 10W 23cm
- Dual Watch & Full Duplex
- Tx/Rx Ham Bands Only
- Ethernet Connection

- \$1300
- Portable
- SDR – Superheterodyne
- 160M -> 6M + 2m & 70cm
- 10W at 12V (5W at 7V)
- Dual Watch only
- Receives beyond Ham Bands
- WIFI & Bluetooth Connection

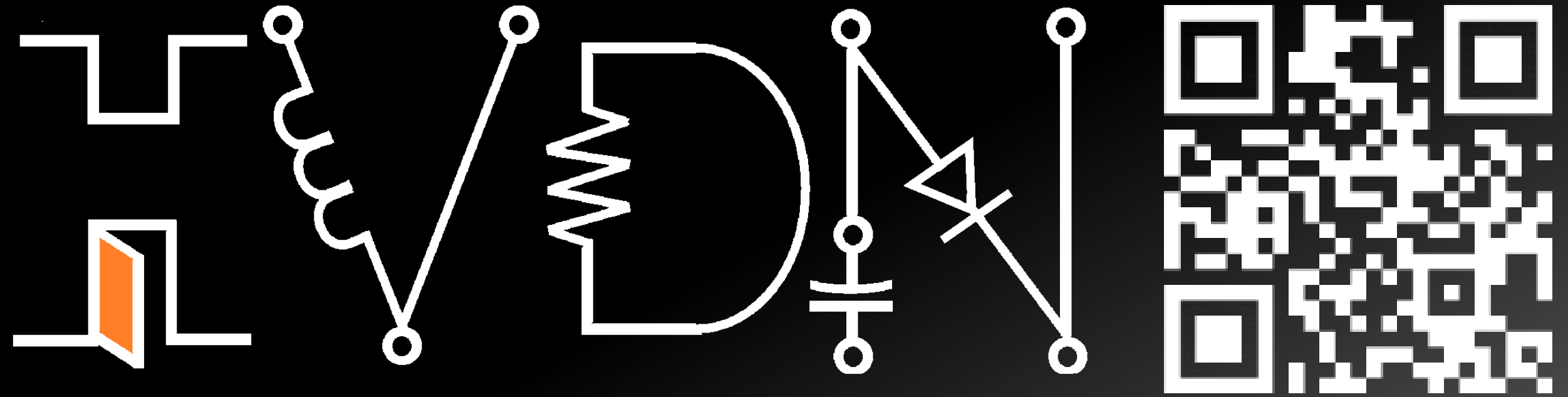
Was it easy to do.....



Versus



- Make SSB, FM & D-Star simplex contacts?
- Setup D-Star and make internet assisted contacts?
 - Record and playback messages and discussions?
- Get satellite or digital mode software working easily?
 - Use remote software functions?



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Winner? Let's get to the Q&A now!

Example: FT-8 2 Meters

WSJT-X v2.4.0-rc1 by K1JT, G4WJS, K9AN, and IV3NWW

File Configurations View Mode Decode Save Tools Help

Band Activity

UTC	dB	DT	Freq	Message
134245	-6	0.0	1567	~ CQ NE1B FN42
134315	-12	0.0	1567	~ CQ NE1B FN42
134345	-15	0.0	1567	~ CQ NE1B FN42
134415	-9	0.0	1567	~ CQ NE1B FN42
134445	-4	0.0	1567	~ CQ NE1B FN42
134515	-6	0.0	1567	~ CQ NE1B FN42
134545	-5	0.0	1567	~ CQ NE1B FN42
134615	-9	0.0	1567	~ CQ NE1B FN42
134645	-11	0.0	1567	~ CQ NE1B FN42
134715	-13	0.3	1567	~ CQ NE1B FN42
135145	-17	0.3	1541	~ CQ KB1GMX FN42

Rx Frequency

UTC	dB	DT	Freq	Message
144700	Tx		1500	~ CQ WA2UMP FN41
144730	Tx		1500	~ CQ WA2UMP FN41
144800	Tx		1500	~ CQ WA2UMP FN41
144830	Tx		1500	~ CQ WA2UMP FN41
144900	Tx		1500	~ CQ WA2UMP FN41
144930	Tx		1500	~ CQ WA2UMP FN41
145000	Tx		1500	~ CQ WA2UMP FN41
145015	-2	0.0	1478	~ WA2UMP KB1GMX FN42
145030	Tx		1500	~ KB1GMX WA2UMP -02
145045	-20	0.0	1467	~ WA2UMP KB1GMX R-15 a3
145100	Tx		1500	~ KB1GMX WA2UMP RR73
145215	-2	0.1	1485	~ WA2UMP KB1GMX R-15
145245	-3	0.1	1474	~ WA2UMP KB1GMX R-15

CQ only

 Menus

2m
 144.174 000
 Tx even/1st
 Hold Tx Freq

Tx 1500 Hz
 Rx 1467 Hz
 Report -20

DX Call: KB1GMX
 DX Grid: FN42
 Az: 360
 69 mi
 Auto Seq
 Call 1st

2021 Feb 28
14:30:53

Next
 Now
 Pwr

KB1GMX WA2UMP FN41	<input type="radio"/>	<input type="button" value="Tx 1"/>	<input type="range" value="10"/>
KB1GMX WA2UMP -20	<input type="radio"/>	<input type="button" value="Tx 2"/>	<input type="range" value="10"/>
KB1GMX WA2UMP R-20	<input type="radio"/>	<input type="button" value="Tx 3"/>	<input type="range" value="10"/>
KB1GMX WA2UMP RR73	<input type="radio"/>	<input type="button" value="Tx 4"/>	<input type="range" value="10"/>
KB1GMX WA2UMP 73	<input type="radio"/>	<input type="button" value="Tx 5"/>	<input type="range" value="10"/>
CQ WA2UMP FN41	<input checked="" type="radio"/>	<input type="button" value="Tx 6"/>	<input type="range" value="10"/>

Receiving
FT8
 Last Tx: KB1GMX WA2UMP RR73
0
8/15 WD:6m