Getting Started on High Frequency A DIFFERENT AND EXCITING WORLD



Today We're Going to Cover:

▶ Why even do this?

- What are some major differences between operating on HF vs. VHF/UHF?
- ► How do I get started?
- What equipment do I need and how much does it cost?
 - Radios, Power supplies, Antennas, Computer connections and software, "Other" stuff
- Some examples of packages that are good starter points



Today We're Going to Cover:

And, probably most importantly, how do I convince my spouse that this is a good thing.



So, why Do I Want to Do This Anyway?

lt's Fun!

► A worldwide party line

Tens of thousands of people just waiting to talk to YOU.

Lots of different modes to use

SSB, CW, 743 different digital modes, and, yes, FM and even SSTV

Long distance transmitter hunts



So, why Do I Want to Do This Anyway?

It's Challenging, but Rewarding!

- Contesting
- Homebrewing
- Just you and the ionosphere figuring out how to get a signal through
- DX Certificates





So, why Do I Want to Do This Anyway?

It's Important!

- Long distance emcomm
 - When the lights are out and internet/cell phones are down in all of eastern Washington, who you going to call?
 - Support for other parts of the country



What's Different from VHF/UHF?

- Propagation of signals is affected heavily by the sun cycle
- Grounding and bonding become much more important
- Noise levels tend to be higher
- Coax losses are much lower
- Frequency accuracy and stability are more critical
- Signal fading is much more of a factor
- Signals that aren't clean have a bigger impact on other users



How Do I Get Started?

First, take out a second mortgage to buy your equipment

- Icom IC-7851 HF-6m transceiver—on sale for \$12,498.95
- Acom 2000A amplifier-\$6,599.99
- SteppIR DB-42 80-6 5 element Yagi beam antenna—\$9,360
- Alpha Spid Big RAK antenna rotator with controller--\$2,199
- Rohn 120' guyed tower with accessories--\$14,500 plus installation
- Coax switches, remote control setup, grounding, etc.--\$6,000 estimated
- ▶ Total= ~\$65,000 and up once you've figured in tax, tower installation, SDXApermits, etc.



- 1. What Modes do I want to operate with:
 - SSB,Digital
 - ≻CW
 - ≻what?



2. What activity interests me most?

- ► DXing
- ► Contests
- Digital
- ▶ Homebrewing
- ▶ Encomm
- ▶ Ragchewing
- ►6 Meter



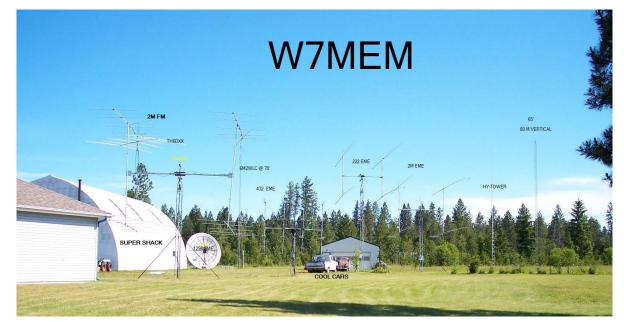
3. What bands do I think are most important to me?

- ► The sun is not our friend right now; propagation is often tough
 - > 40 meters is best all around right now
 - ≻80 meters is usually open pretty well at night
 - > 20 meters is crowded, but often open during the day
 - > 17 meters and up are iffy at best right now but 17 has moments of greatness
- On what bands are the nets and/or activities that interest me?



4. How much space horizontally and vertically do I have for (an) antenna(s)?

▶ How much space will my HOA, zoning, spouse let me use.





4. How much space horizontally and vertically do I have for (an) antenna(s)?

- How much space will my HOA, zoning, spouse let me use.
- Do I have trees I can use for antenna support?



Transceivers











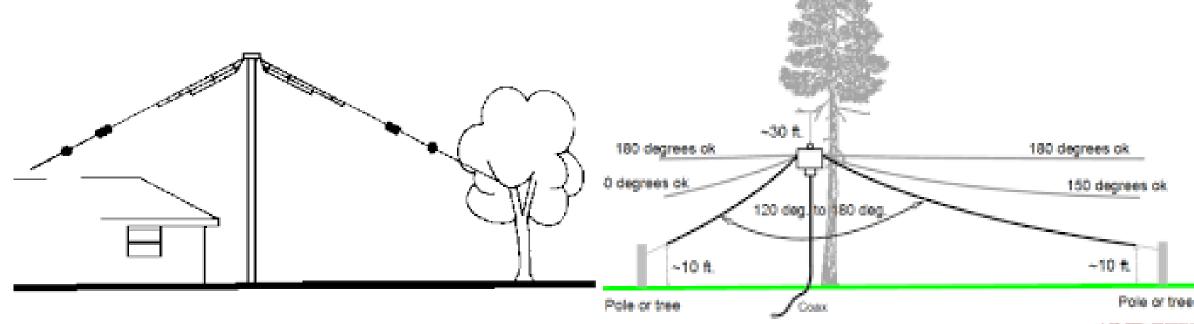
Power Supplies







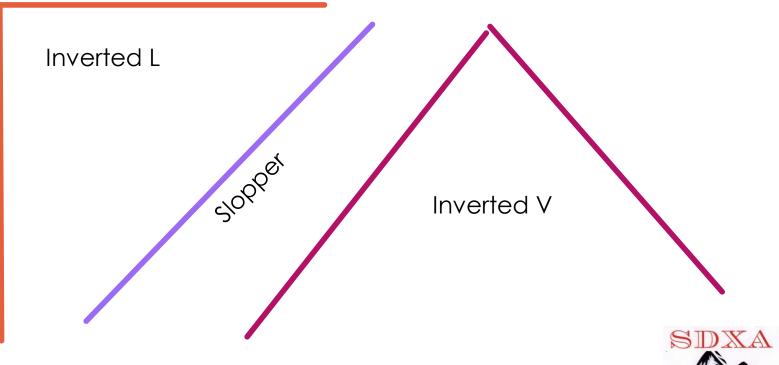
Antennas: Wire Dipole





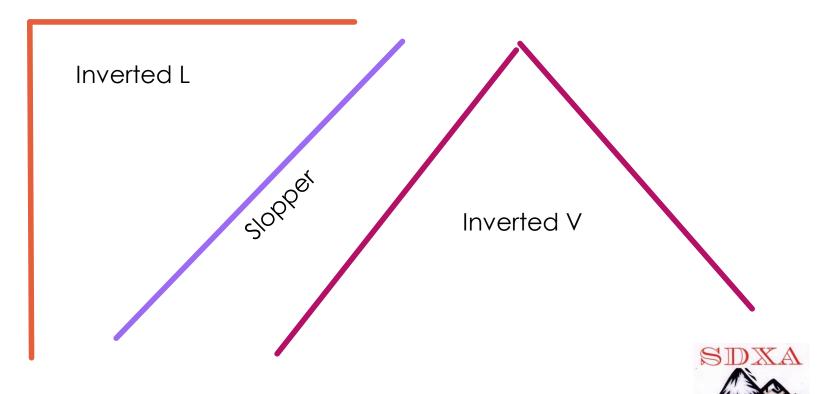
Antennas: end Fed





Antennas: Tuner with Long wire





Antennas: Verticals (with Radials)





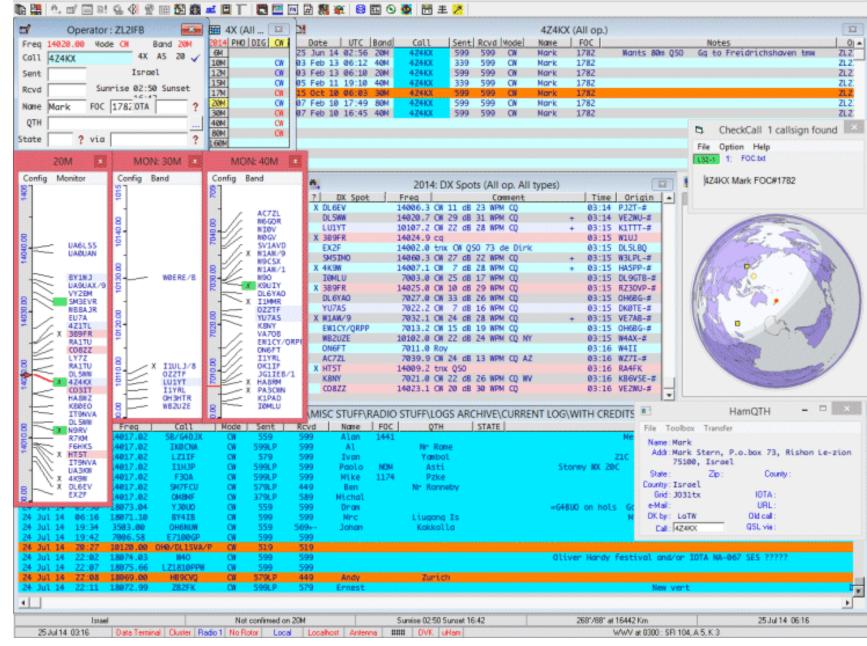
Computer software

► 1) Logging Software



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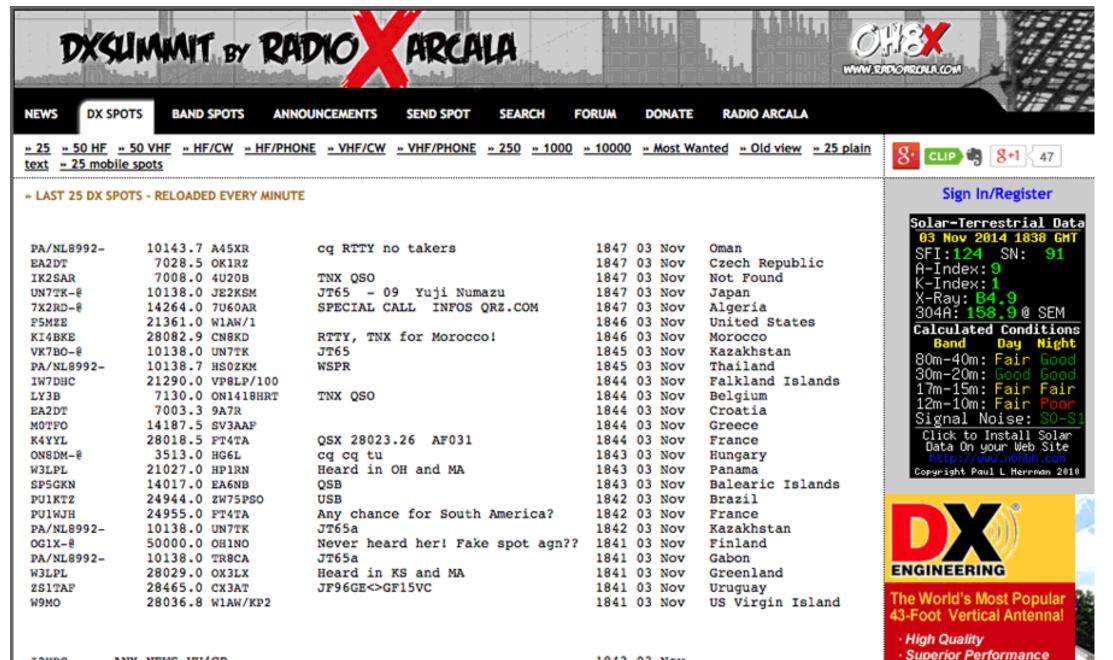
Spotting Programs





DX Labs Spot Collector





Low Price

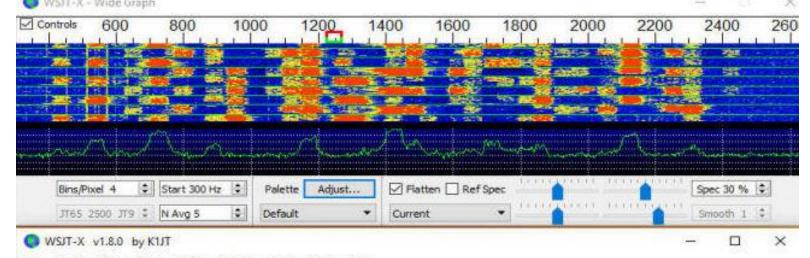
Spider User VE7CC-7 @ VE7CC-1 Configuration Set Help Sunset 08 May Connected to VE7CC-1 Disconnect 01:44:41 -1:52BER^HA7UG^226^69^AB5K^8^5^28^15^MA^^CT-Connecticut-W^Hungary-HA^FN32^JN97 • User VK2UK has logged out State **Bands** Locals = 27 DX WWW Login Msg. Mail Settings Country Ann Wx. Spotter DX Time Freq Comments U01AU * 7004.0 HC1MD 0138Z ALL 85 AD1C 7237.0 WA1EN0 0139Z Plymouth, MA (also WB1ARU) 160 7 7 W2YJ 28476.5 ZL4PW 0139Z 10m open!!! 80 22 IPY2DO 1817.5 EW60IG **Ø1397** tox 3517.8 01387 ART AA3B SN8F 40 29 29 WAELS. 14020.5 PY1CE 01437 20 5 5 N5CR0 21308.0 UK1CW **ß1417** GRUHR 3768.0 9A4D 0141Z 15 11 11 K4KWK 7012.0 IR4T 0140Z TEST, 599 PLUS 30 IN TN 10 11 11 0141Z GO G8VHB 3773.0 IO3AZ 0141Z MI G8UHB 3786.0 I02CJ Alarm YO2LDC SU5/DJ5AA/P 0141Z 1832.9 Minor Radio AA3B 3510.1 **ON6NR** 0139Z ARI **Blackouts** W2R0 7070.0 IKOPHY 0141Z gsx 7215 for stateside.. W2XY7 7041.5 K1ZZ 01402 NE0P SA: Eruptive W9YK 28430.0 XF1766 **ß1437** GMF: Quiet HA7UG 7037.0 K1TTT 0144Z MA-BER Aurora Clear ALL Set Alarm Send Spot Get Spots ALL Chat Fix Spots Announce SFI=110 A=17 K=4

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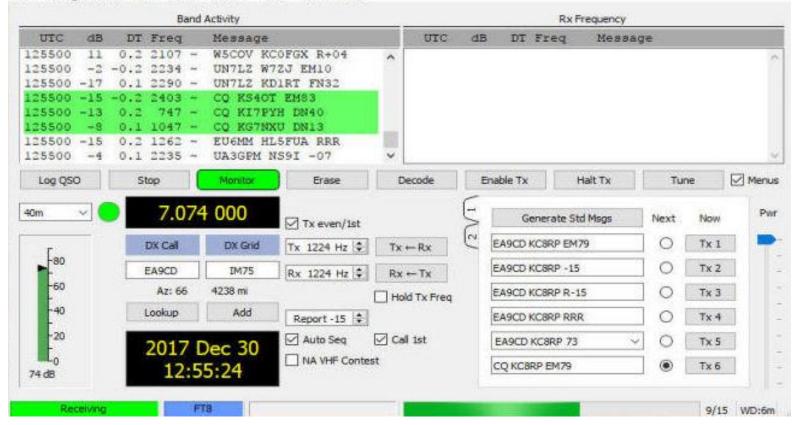
Digital Programs

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File Configurations View Mode Decode Save Tools Help



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Let's Talk about Equipment Options Cont'd



- Grounding
- Antenna switches
- Lightning protection
- ► SWR and power meters



Some Suggested Starter Packages to Get You Started

Listed in the handout that will also be on the SDXA website www.sdxa.org



How Do I Learn What's Available and How to Operate on HF?

SDXA can help

- Mentor program for new/inexperienced Generals (and above)
- Come to the SDXA meeting first Thursday every month
 - ► Great presentations
 - ► Ask questions
 - ►Lots of mentoring available



Questions



- Del WA7AQH <u>WA7AQH@gmail.com</u>
- Mel N7GCO <u>Teammel@gmail.com</u>
- www.sdxa.org will have both this deck and the handout



Thanks for Joining Us Today

Enjoy the rest of the HamFest

