



DX Hints & Tips

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The DX Mentor - AJ8B



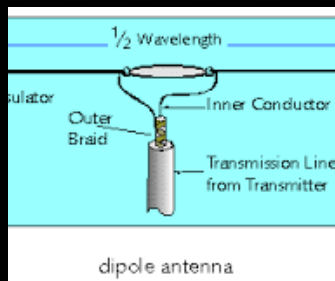
Who is AJ8B?

- ▶ First Licensed in 1971
- ▶ DXing since 1980
- ▶ Mixed 326, Phone 257
- ▶ CW 292, Digital 269
- ▶ WAZ, Mobile DXCC
- ▶ ARRL Triple Play
- ▶ ARRL Trident Award (200)
- ▶ Challenge 1806
- ▶ 8 Band DXCC, WAZ



Extracurriculars

- ▶ CWOPs Instructor
- ▶ SWODXA President
- ▶ SWODXA Newsletter Editor
- ▶ OH Section Journal DX Column Editor
- ▶ Twin City DX Assoc. Newsletter Editor
- ▶ QSO Today #319
- ▶ ARRL 8th Area Bureau “N” sorter
- ▶ Host of the “DX Mentor” podcast
- ▶ Weekly contributor of the “Dose of DX” section of “This Week in Amateur Radio” podcast
- ▶ Weekly “This Week in DX” on YouTube





Should You be HERE today?

Or

Do Any of These
Apply to You?

I TEXTED HIM
“ME OR CHASING DX”



HE REPLIED “73” AND LEFT

He claimed he was a DXer

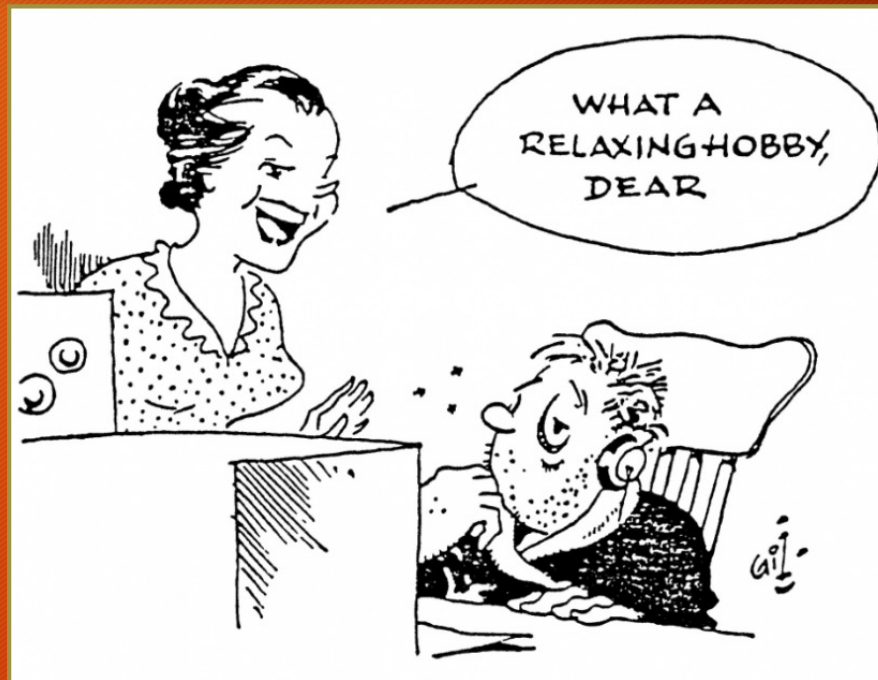


**..but he only operates on
Contest Weekends**

DX is Always on Your Mind!



Balance IS Important



Some Tips, Tricks, and Techniques to get the DX in your log

- Logging Software
- Spots
- Splits & Filters
- Tail ending / Partial Calls / Timing
- Lists (WHAT???)
- Potpourri
- The SILVER Bullet



Let's Start with Logging Software

I Use DXLab

This is not an Ad for
DXLAB

The Software is FREE

There is a Huge Support
Community

Written by AA6YQ - Dave
Bernstein of LoTW fame

A Suite of DXing Applications

The image displays a collection of seven screenshots from different DXing (amateur radio) software applications:

- DXKeeper 8.9.4**: A screenshot of the main interface showing a log of QSOs (contacts) with fields for call, name, QTH, mode, time, and power. It includes buttons for 'New', 'Save', 'Undo', 'CBA', 'Delete', 'Report', 'Plot', 'Adv', 'RAT', 'Capture', and 'Config'.
- SpotCollector 5.3.9**: A screenshot showing a list of outgoing spots with columns for Call, Freq, Band, Mode, LastTime, and Notes. It also includes a 'Spot source status' section with buttons for 'Local', 'Report', 'Stats', 'Config', and 'Help'.
- DXView World Map 3.5.2**: A screenshot of a world map showing the locations of various DX stations (red dots) and their connections (lines). It includes a 'Map' section with checkboxes for 'Countries', 'ITU zones', 'Maiden Fields', and 'ITU Regions'.
- WinWarbler 6.8.5**: A screenshot of the 'QSO Info (Receive Pane)' window, showing details for a specific contact, including call, name, QTH, and frequency. It also includes a 'QSO Info (Transmit Pane)' window.
- Commander 8.5.8**: A screenshot of the main interface showing a frequency display (14,086.19) and various controls for the radio, including 'Filters', 'PTT', 'Mode', and 'Bandwidth'.
- RITTY receive (soundcard)**: A screenshot of the RITTY receive interface, showing a frequency display (14,084.055) and various controls for the soundcard, including 'Filters', 'PTT', 'Mode', and 'Bandwidth'.
- RITTY transmit (soundcard)**: A screenshot of the RITTY transmit interface, showing a frequency display (14,084.055) and various controls for the soundcard, including 'Filters', 'PTT', 'Mode', and 'Bandwidth'.

DXLab Features

- Transceiver & Rotor Control
- Logging
- DX spot collection & aggregation
- Digital mode operation
- Propagation prediction
- Automatic uploads to LoTW, Clublog, QRZ.com, and eQsl.
- Custom Reports
- The suite's components can operate independently but seamlessly integrate, automating tasks and providing information to improve contacts.

Reports as well as Real-Time Award Tracking

DXKeeper Realtime Award Tracking: M0MLS

DXCC IOTA Marathon VUCC WAS WAZ WPX

Award Progress: 402 all-time DXCC entities [Filter: by progress]

| | Prefix | Entity | Phone | CW | DIGI | PSK | 160M | 80M | 40M | 30M | 20M | 17M | 15M | 12M | 10M | 6M | 2M |
|--|--------|--------|-------|----|------|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
| | JA | V | V | V | V | | C | V | V | V | V | V | V | V | V | | |
| | JD1-M | V | V | C | | | | | | | | | | C | V | | |
| | JD1-D | V | V | V | C | | | | | | C | V | C | | V | | |
| | JT | V | V | V | C | | | | C | | V | C | V | | V | | |
| | JW | V | V | V | C | | | | V | V | V | V | V | | V | | |
| | JX | | | | | | | | | | | | | | | | |

Award Progress Filter

Band: ANY ☒ Unworked ☒ Worked ☒ Requested ☒ Confirmed ☒ Verified

Mode: MIXED ☒ Include deleted DXCC entities

All Report

G (England) Progress Details

| | 160M | 80M | 40M | 30M | 20M | 17M | 15M | 12M | 10M | 6M | 2M |
|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
| PHONE | | C | C | | V | V | C | W | V | | |
| CW | | V | V | V | C | C | V | | C | | |
| DIGI | C | C | C | C | V | C | C | C | C | | |
| PSK | | | | | C | | C | | | | |

Summary

Help Config

17/11 18.100.000



What About Spots
(or Where is the DX?)

Check Your Own Logbook/Spotting Cluster Client

“Selected Bands and Modes”

SpotCollector 7.6.6 © 2017-04-16 19:20 Z [CC,DXK,DXV,PV,WW] 8168 entries (log: AA6YQ.mdb)

WwV 04-16 1805 Z Outgoing spot
SFI 73 History Call 14,085.0 Freq Cluster
Q: 1 A 6 1 K Notes Local Report Stats Prop Config Help

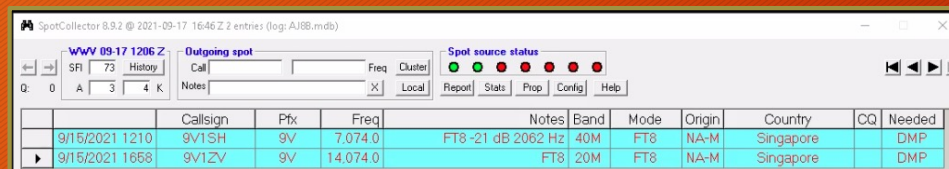
Spot source status

| Need | Call | Prefix | Band | Mode | FirstTime | LastTime | Freq | QSQ | Pri | CQ | IDTA | DXGrid | ODX | EU | AF | SA | NA-E | NA-M | NA-W | AS | OC | SP | SNR | SP P | LP | SNR | LP P |
|------|-----------|--------|------|------|-----------|----------|----------|----------|-----|----|--------|--------|------|----|----|----|------|------|------|----|----|----|-----|------|----|-----|------|
| | TA7I | TA | 20M | CW | 16 1919 | 16 1919 | 14,027.4 | | | 20 | | KM69 | 3830 | Y | | | | | | | | 29 | 82 | -40 | 1 | | |
| | HB20MDC | HB | 20M | SSB | 16 1915 | 16 1919 | 14,216.0 | | | 14 | | JN47 | 515 | | | Y | | Y | | | | 28 | 65 | -62 | | | |
| | HA7JIV | HA | 30M | CW | 16 1918 | 16 1919 | 10,138.0 | | | 15 | | JN97 | 3931 | Y | | | | | | | | 13 | 55 | -155 | | | |
| | PY1TJ | PY | 10M | CW | 16 1914 | 16 1919 | 28,035.0 | | | RJ | 11 | GG87 | 4137 | | | Y | | | | | | -5 | 23 | -56 | | | |
| | N2MM | K | 20M | CW | 16 1911 | 16 1919 | 14,028.8 | | | NJ | 5 | FM29 | 3727 | Y | | | | | | | | 14 | 63 | -103 | | | |
| | CE7VPQ | CE | 10M | SSB | 16 1909 | 16 1919 | 28,445.0 | | | 12 | | FE33 | 4311 | | | Y | | | | | | 15 | 41 | -61 | | | |
| | 5K4R | HK | 20M | SSB | 16 1839 | 16 1919 | 14,214.0 | | | 9 | | FJ15 | 2304 | Y | | Y | | | | | | 35 | 92 | -66 | | | |
| | KM4TVU | K | 20M | SSB | 16 1919 | 16 1919 | 14,316.5 | | | GA | 5 | EM73 | 3727 | Y | | | | | | | | 43 | 86 | -88 | | | |
| D | 3Y0RY | 3Y-B | 20M | RTTY | 16 1920 | 16 1920 | 14,085.0 | | | 38 | AN-002 | JD14 | 1 | Y | | | | | | | | 11 | 52 | -50 | | | |
| | KC1YL | K | 20M | SSB | 16 1903 | 16 1920 | 14,315.0 | | | CT | 5 | FN31 | 319 | Y | | | Y | | | | | 27 | 70 | -73 | | | |
| | H18/KB1KK | HI | 20M | RTTY | 16 1920 | 16 1920 | 14,074.0 | | | 8 | | FK49 | 3830 | Y | | | | | | | | 44 | 100 | -82 | | | |
| | 8Q7VB | 8Q | 30M | CW | 16 1717 | 16 1920 | 10,107.0 | 10,108.0 | | 22 | AS-013 | MJ64 | 3486 | Y | | | | | | | Y | -5 | 1 | -117 | | | |
| | PU2KOB | PY | 10M | RTTY | 16 1920 | 16 1920 | 28,076.0 | | | SP | 11 | GG57 | 1047 | | | | Y | | | | | -8 | 18 | -63 | | | |
| | V31MA | V3 | 15M | CW | 16 1920 | 16 1920 | 21,004.1 | | | 7 | | EK57 | 2503 | | | | | | Y | | | 37 | 91 | -49 | | | |

Sort: First Call, Last Freq, Rcv Az
Filter: Band and Mode and Origin: AH, Need, Call, DXCC, Freq, Tag, Band, Mode, Cont, Origin
Audio Age LoW eQSL Mithn 160 test1 W9QL Quixote Need50 SQL 29 SQL 30 160was
Color codes: verified, unverified, unverified counter, unverified, special tag, LoW, eQSL AG, LoW & eQSL AG

Any recent Spots for 9V?

Search YOUR Spotting client Database



The screenshot shows the SpotCollector 8.9.2 application window. The title bar indicates it's running at 2021-09-17 16:46 Z with 2 entries in the log. The interface includes a search bar with 'WV 09-17 1206 Z' entered, and a table of spotted stations. The table has columns for Callsign, Ptx, Freq, Notes, Band, Mode, Origin, Country, CQ, and Needed. Two entries are visible, both for 9V stations in Singapore.

| | Callsign | Ptx | Freq | Notes | Band | Mode | Origin | Country | CQ | Needed |
|----------------|----------|-----|----------|--------------------|---------|------|--------|-----------|----|--------|
| 9/15/2021 1210 | 9V1SH | 9V | 7.074.0 | FT8 -21 dB 2062 Hz | 40M | FT8 | NA-M | Singapore | | DMP |
| 9/15/2021 1658 | 9V1ZV | 9V | 14.074.0 | | FT8 20M | FT8 | NA-M | Singapore | | DMP |

2 different 9V stations were spotted in past
several weeks *from my region.*

Heard of HamAlert?

10:23

Triggers

3 total, 1 active, 2 paused

| Conditions | Actions | Comment | |
|--|---------|-----------------------|-------------------------|
| <div>Band6m</div> <div>Spotter stateOH</div> | App | | <div></div> <div></div> |
| <div>DXCC21 DXCCs 020, 305, 024, 033, 512, ...</div> <div>Spotter CQ zone4</div> | App | ATNO - 2/22/2025 | <div></div> <div></div> |
| <div>DXCC108 DXCCs 000, 004, 006, 010, 136, ...</div> <div>Spotter stateOH</div> | App | CQ Marathon - 2/23/25 | <div></div> <div></div> |

Changes may take up to a minute to be applied.

1:52

LATEST SPOTS

| | |
|----------------|--|
| 17:42Z PSKR | E51WL (24.916059 FT8) DX de N8OH: 24916.1 E51WL FT8 -22 dB 1742Z (WSJT-X v2.7.0-rc7 bf4aa5) |
| 17:33Z PSKR | 9M8A (18.101038 FT8) DX de KE8UUO: 18101.0 9M8A FT8 -9 dB 1733Z (WSJT-X v2.7.0 b4f9a4) |
| 17:26Z PSKR | TY5AD (21.076877 FT8) DX de WB8SIG: 21076.9 TY5AD FT8 -19 dB 1726Z (WSJT-X v2.6.1 6b6d74) |
| 17:18Z PSKR | 9M8A (21.075706 FT8) DX de WB8SIG: 21075.7 9M8A FT8 -14 dB 1718Z (WSJT-X v2.6.1 6b6d74) |
| 17:16Z PSKR | Z21ML (21.075165 FT8) DX de WB8SIG: 21075.2 Z21ML FT8 -22 dB 1716Z (WSJT-X v2.6.1 6b6d74) |
| 17:00Z PSKR | TY5AD (21.076876 FT8) DX de WB8SIG: 21076.9 TY5AD FT8 -20 dB 1700Z (WSJT-X v2.6.1 6b6d74) |
| 16:24Z PSKR | 7X2RF (21.07467 FT8) DX de WB8SIG: 21074.7 7X2RF FT8 -19 dB 1624Z (WSJT-X v2.6.1 6b6d74) |
| 16:19Z PSKR | 9M8A (18.101049 FT8) DX de KD8ZKS: 18101.0 9M8A FT8 -19 dB 1619Z (WSJT-X v2.8.0 i+) |
| 15:55Z PSKR | TY5AD (18.100277 FT8) DX de KD8ZKS: 18100.3 TY5AD FT8 -14 dB 1555Z (WSJT-X v2.8.0 i+) |
| 15:39Z PSKR | TY5AD (18.100268 FT8) DX de KC8YG: 18100.3 TY5AD FT8 -7 dB 1539Z (WSJT-X v2.5.4 d28164) |
| 15:28Z PSKR | TY5AD (18.100276 FT8) DX de KD8ZKS: 18100.3 TY5AD FT8 -14 dB 1528Z (WSJT-X v2.8.0 i+) |



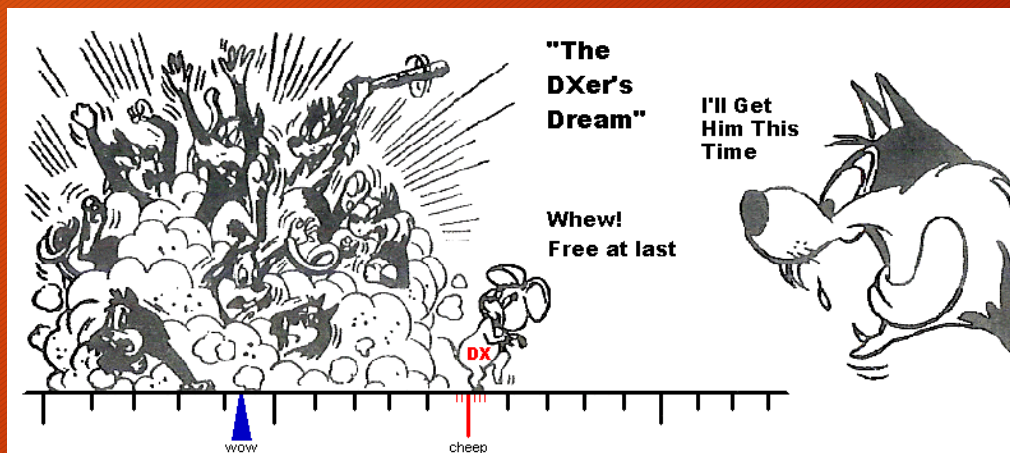
What about
Splits & Filters?

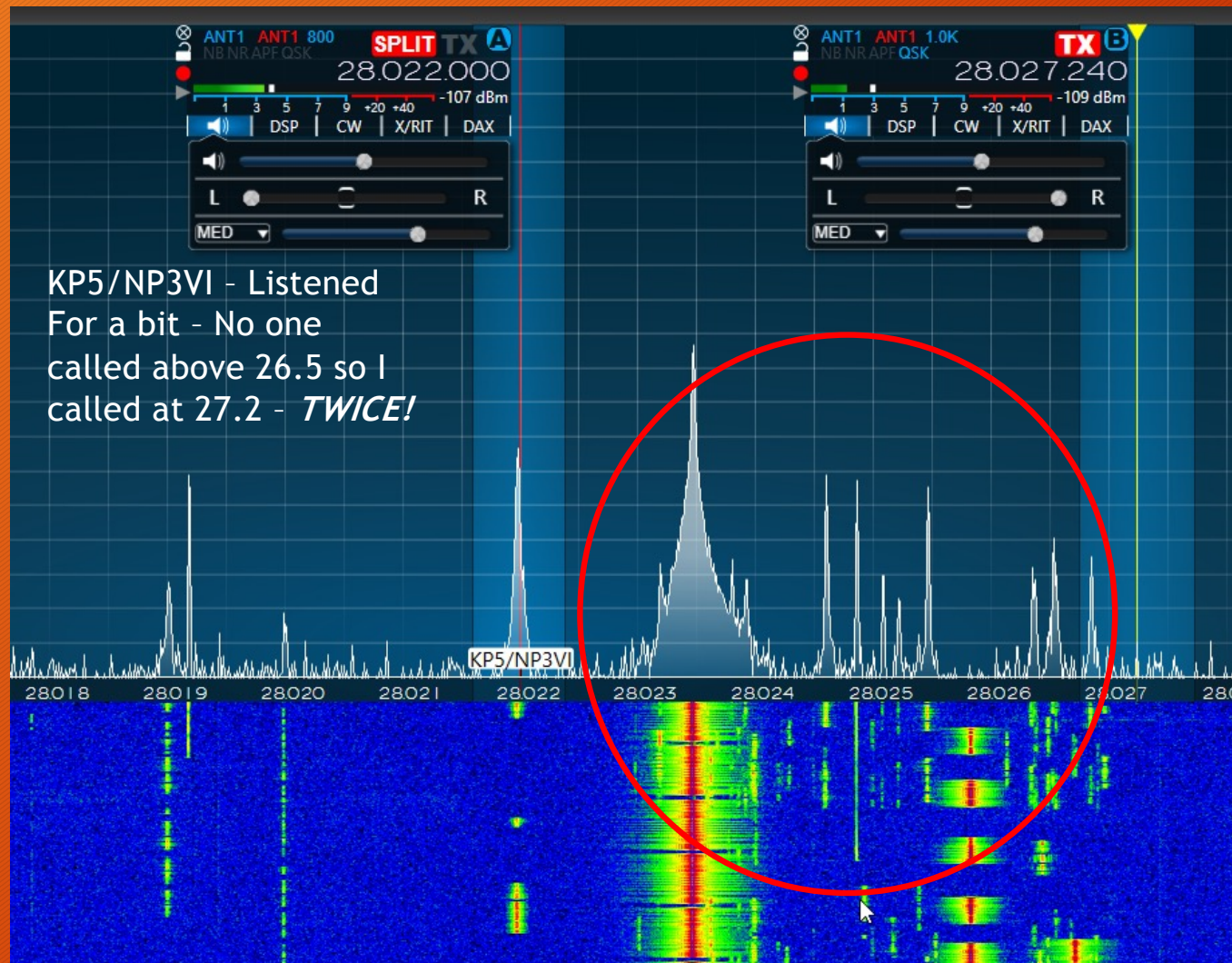


What about
Splits & Filters?

Split Operation - Transmitting & Receiving on Different Frequencies

- I need a Volunteer
- Operator says "Up 5" or perhaps "Listening 155 to 215"
- I have split enabled **ALL** of the time





KP5/NP3VI - Listened
For a bit - No one
called above 26.5 so I
called at 27.2 - *TWICE!*

Split Operation - Example

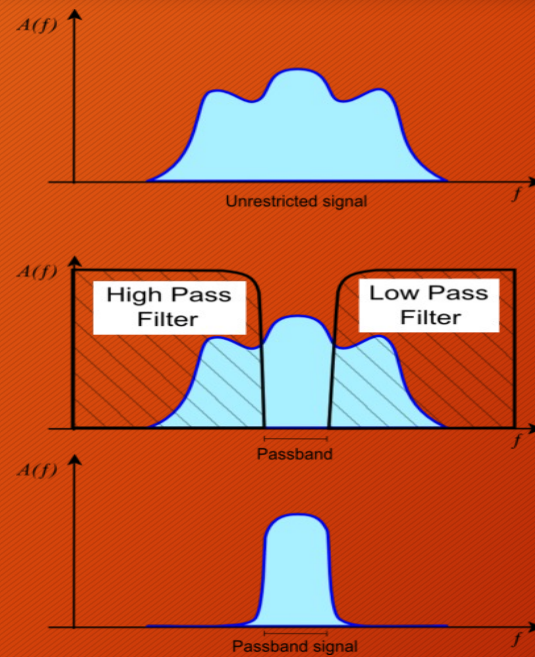


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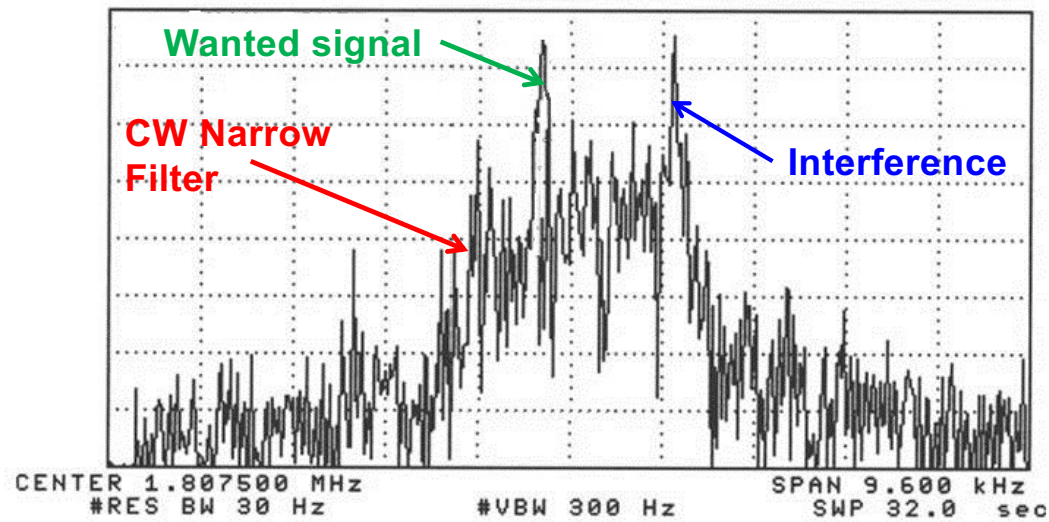
What about
Splits & Filters?

Passband tuning

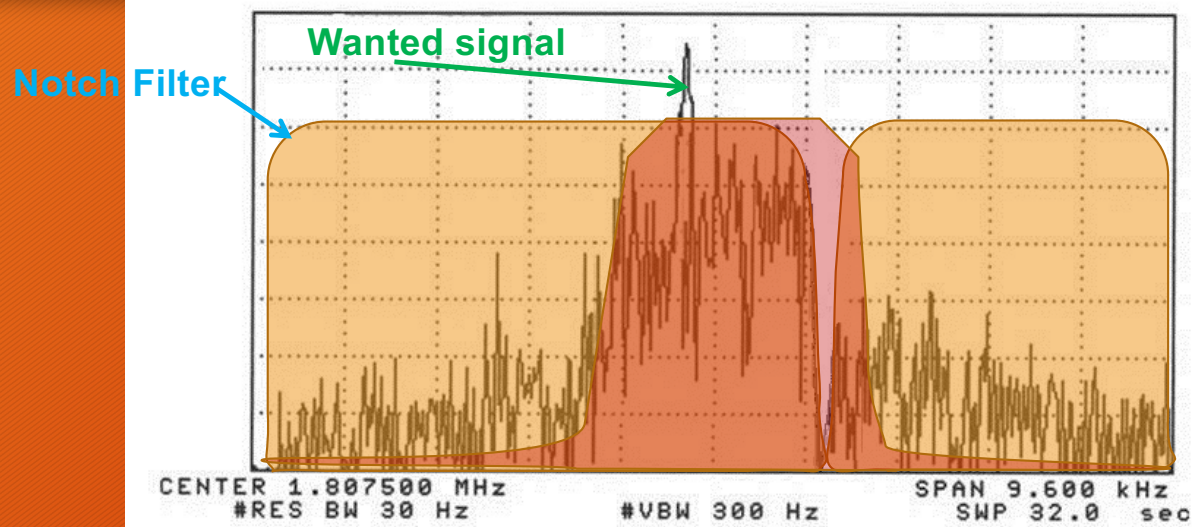


Use it – if you have it!

Applying CW Narrow Filter

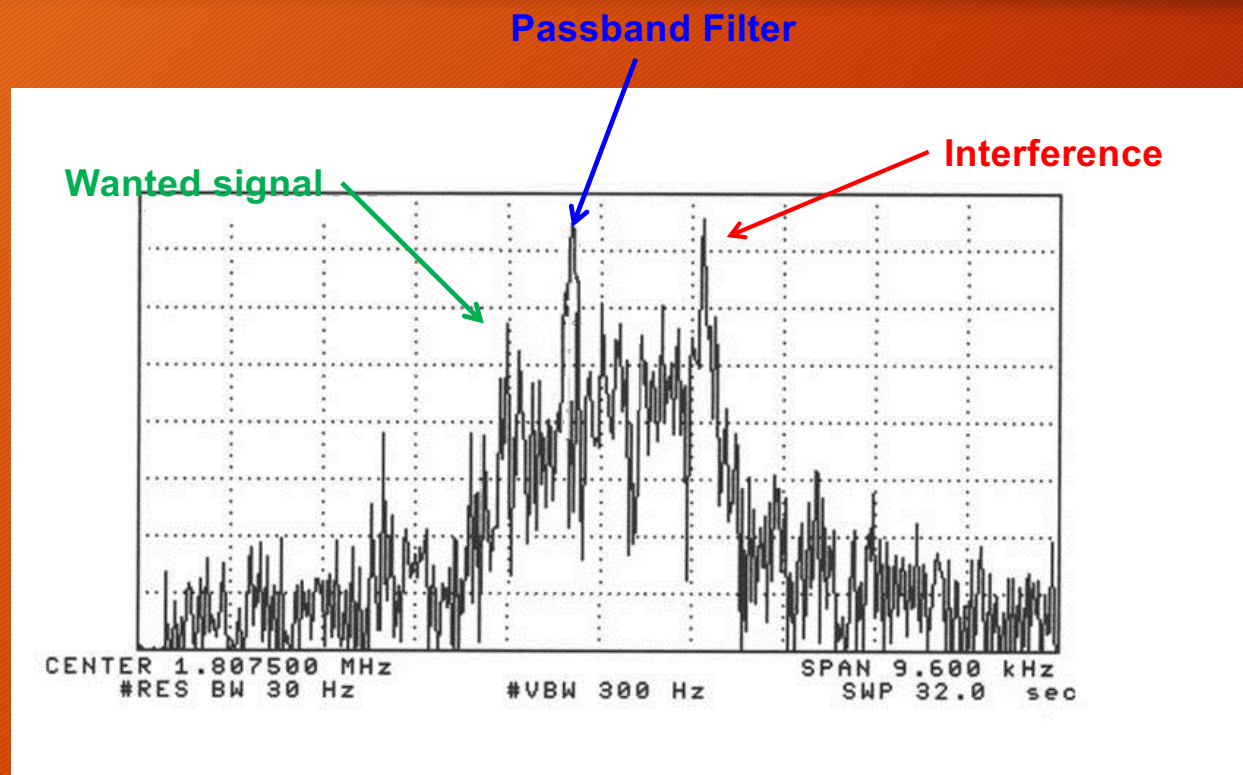


Enabling the Notch Filter...

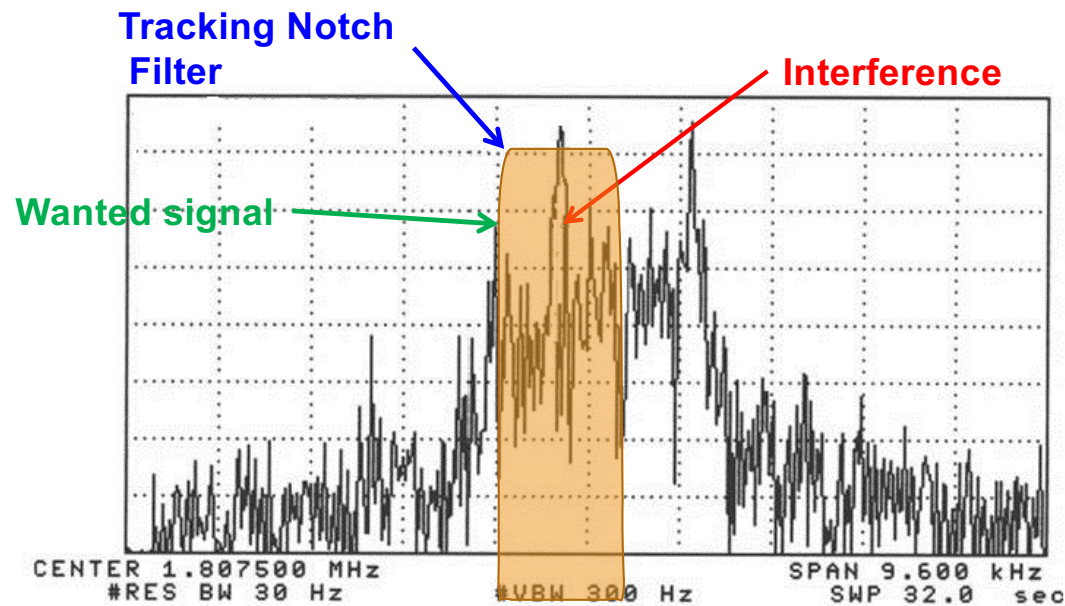


...interfering signal has been
“notched” or filtered out.

Filtering interference (using the Passband tuning / IF Shift)



Filtering interference (Tracking Notch Filter) - Filter moves with the interference



When to use what features?

(general guideline)

- RF Gain – Low bands.
- CW Filter – When trying to work a weak one.
- Speech Processor – Contesting and DXing.
- Pan-Adapter – Contesting and DXing.
- Second RX Antenna – Low bands, Contesting
- RX Notch Filter – Whenever you need to get rid of constant carrier (continuous tone)
- AUTO RX Notch Filter – When in SSB mode

What About

→ Tail Ending

→ Partial Calls

→ Timing?

Tail Ending / Partial Calls / Timing

- Must be able to hear the other station
- Must practice this
- Some DX Stations don't appreciate these practices!

Tail Ending / Partial Calls / Timing

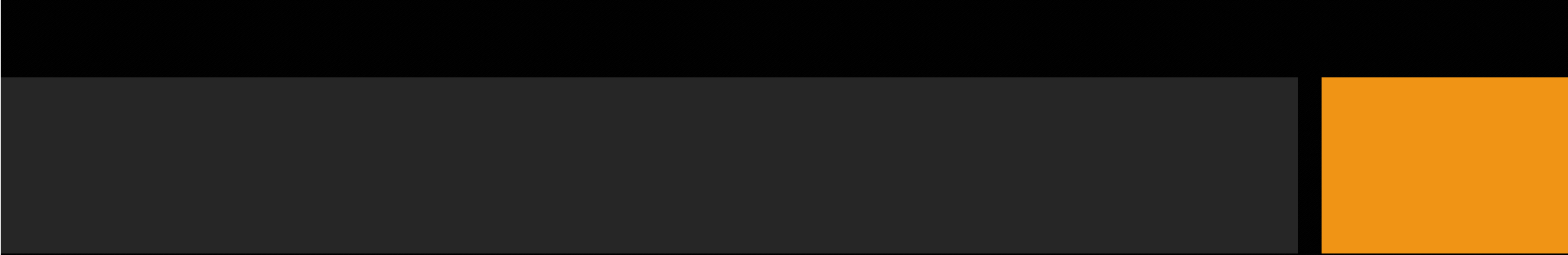
- Tail ending
 - P5DX: K1FJ 59
 - K1FJ: TU 59 OHIO
 - AJ8B: (At the end of K1FJs transmission) AJ8B
 - P5DX: K1FJ TU AJ8B 59

Tail Ending / Partial Calls / Timing

- P5DX: K1FJ 59
- K1FJ: TU 59 OHIO
- AJ8B: (At the end of K1FJs transmission) 8 BRAVO
- P5DX: K1FJ TU Who is the 8 BRAVO?

Tail Ending / Partial Calls / Timing

- I need a Volunteer
- P5DX: “QRZ?”
- Everyone in the world calls
- K4ZLE: waits several seconds and then calls
- P5DX: K4ZLE, 59



List Operation (WHAT???)

List Operation (WHAT???)

- An operator with a better than average station invites DX stations to call him
- The operator keeps a list of available stations
- Operators can contact the net control and then contact one of the DX Stations and make a QSO
- Great way to overcome microphone jitters
- I used this to test the rig in my car
- Not every ham operator favors this method of working DX



Potpourri

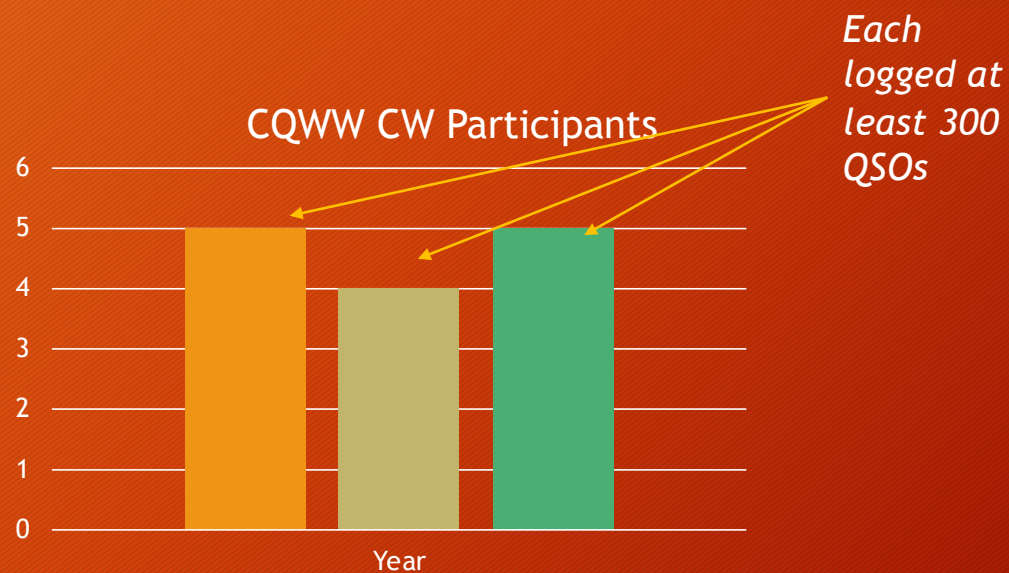
If You are looking for a specific entity, Is it even available?
i.e. Any DXPedtions to 9V during my “stay-cation”?

Check with the NG3K.com website

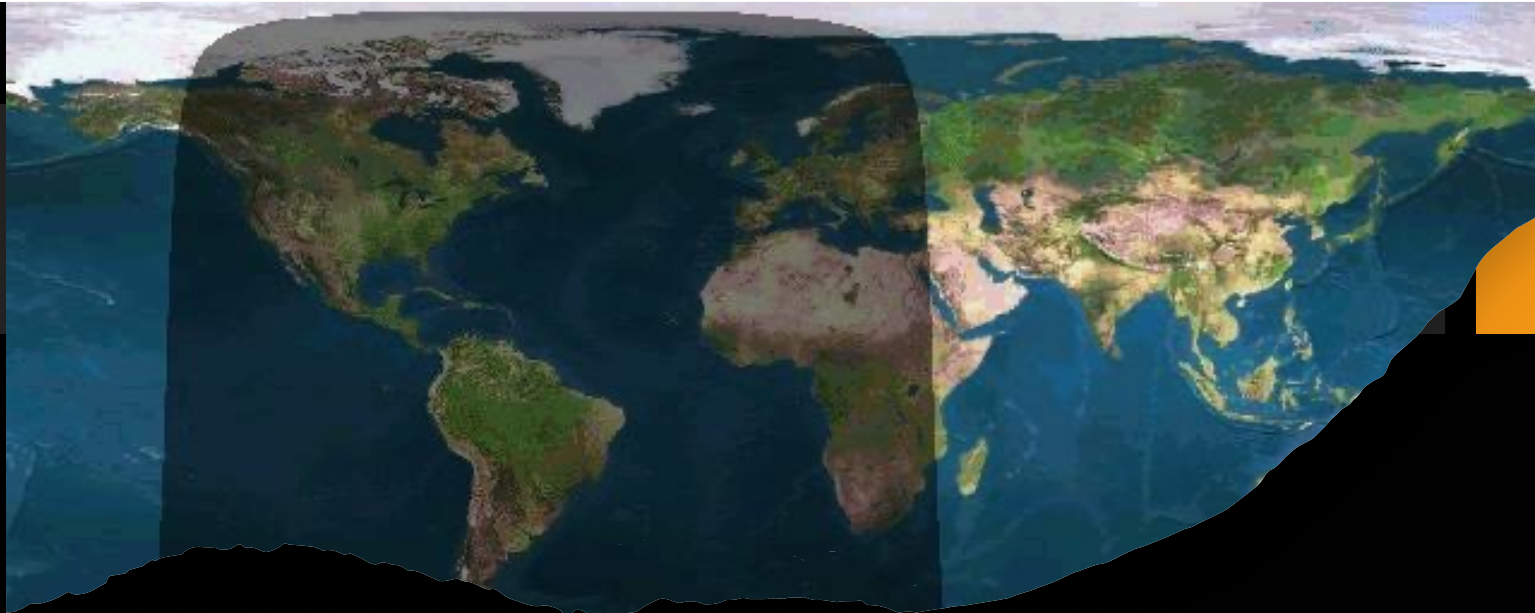
| November | | November | | | | | |
|---|---------------|---------------|------|-------|------------------------------------|--|--|
| 2021 Nov19 | 2021 Nov24 | St Barthelemy | FK | KP4DO | DXWNet 20210909 | By KP4DO as FJ/KP4DO; 40-10m | |
| 2021 Nov24 | 2021 Dec01 | Rwanda | 9X4X | 4Z5FI | OPDX 20210801 | By 4Z4KX 4X6YA 4Z5FI 4Z5LA 4Z1DZ 4X1VF; 160-10m; CW SSB RTTY FT8; QRV for CQWW DX CW | |
| CQ WW DX Contest, CW (Nov 27-28, 2021) Check here for pericontest activity too. | | | | | | | |

None listed

Any Previous 9V Activity in the CQWW CW Contest in 3 prior years?



<https://www.cqww.com/results/>



Don't Forget the Gray Line

9V is +13 Hours UTC

As a side
note...In a
contest, you
can always ask
for another
Band!

- Needed Alaska on 80 for WAS and a new DXCC entity.
- Worked them on 40 and asked if they were running on 80.

Sure enough...

How do
you ask?

- AJ8B: 599 04 80M?
- KL7RA: QRX 3503
- AJ8B: TU QSY



Got em!

Check the WARC Bands during a Contest!

- Normal but “rarer” DX may not like pileups every time they are on
- Contests help them to cut down on the traffic and work the little pistols
- i.e. 9J2B0



NCDXF Beacon Network



- ▶ The NCDXF, in cooperation with the IARU, constructed and operates a worldwide network of HF radio beacons on 14.100, 18.110, 21.150, 24.930, and 28.200 Mhz.
- ▶ Each beacon transmits once on each band every three minutes, 24 hours a day.
- ▶ A transmission consists of the callsign of the beacon sent at 22 words per minute followed by four one-second dashes.
- ▶ The callsign and the first dash are sent at 100 watts. The remaining dashes are sent at 10 watts, 1 watt and 100 milliwatts.
- ▶ At the end of each 10 second transmission, the beacon steps to the next higher band and the next beacon in the sequence begins transmitting.

Breaking it all Down

The DX Mentor - AJ8B

Let's Divide the DX Chase into 3 Levels

- Level 1 - Countries 340 - 220
- Level 2 - Countries 219 - 100
- Level 3 - Countries 99 - #1

What does it take to move to the next level?

Level 1 - Thoughts

- Don't Be Timid
- Embrace CW
 - www.cwops.org
- DX University
 - <http://www.dxuniversity.com/>
- Find an Elmer



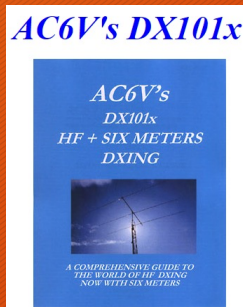
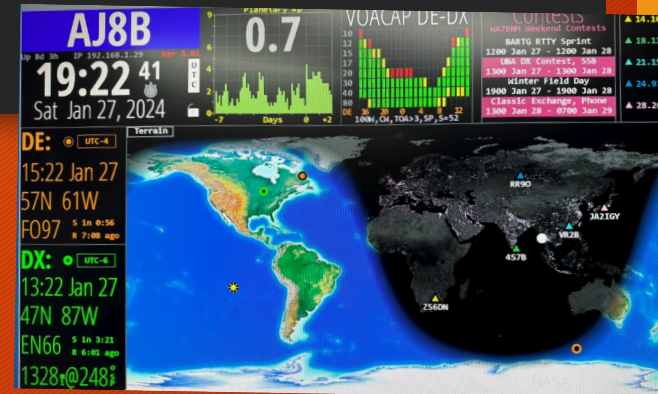
Level 1 - Thoughts

- North Alabama DX Association (<https://www.nadxc.org/>)
- Southwest Ohio DX Association (<https://www.swodxa.org/>)
- Twin City DX Association (<https://tcdxa.org/>)
- Northern California DX Association (NCDXF) (<https://ncdxf.org/>)
- Join International DX Association (INDEXA) (<https://indexa.org/>)
- Use Web Resources
- HAVE FUN!!!

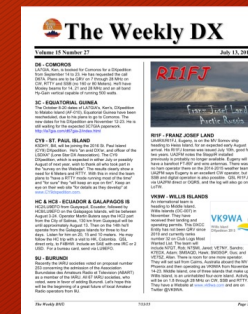
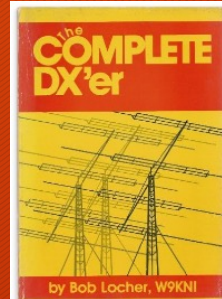
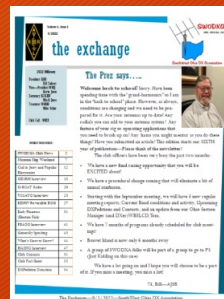
Level 1 - Thoughts

(Thanks Paul - N6PSE) <https://n6pse.wordpress.com/>

- Use the Grey Line
 - Propagation Changes
 - Know How, Why & When
- Learn Your Rig
 - Splits and Filters!
- READ!



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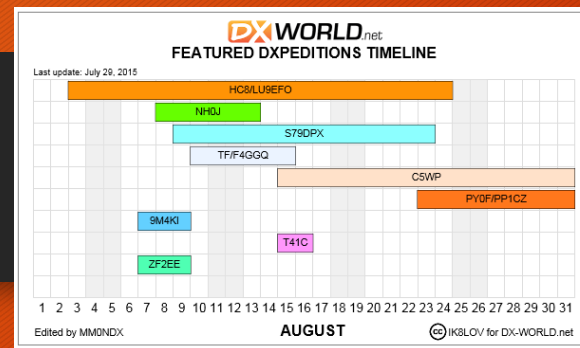


Level 2 - Take it up a Notch

- Equipment –
 - Antenna(s), Transceiver, Amplifier, Headphones
- Multi Modes – KØMD
- Know Your Equipment – K4ZLE
 - Split is CRITICAL
 - Filters

Level 2

- Tactics (cont.)
 - Know Who is On & When
 - WA7BNM Website
(<https://www.contestcalendar.com/>)
 - Tune the Bands
 - Learn Propagation
 - Learn your Equipment
- Resources
 - DXCLubs
 - DXForums
 - READ
- Real Time DX Info (DailyDX) (<https://www.dailydx.com/>)
- DX World DXPedition Timeline (www.dx-world.net)



Level 3

- Equipment
 - Audio Equipment
 - Enhanced Headphones
 - DSP Speakers
 - Tailored Microphones
 - Stress Hi Frequencies
 - Rolloff Low Frequencies
- Amplifiers
 - No Tune
 - Full Power
 - Long Duty Cycle

Level 3

- All Modes
- All Bands
- All Tactics
- Longevity



The DX Mentor - AJ8B

Antenna Selection

General Ham Population (per ARRL Survey)

| Antenna Type | % |
|-------------------------------------|-------|
| Multiband Vertical | 24.4% |
| Triband Yagi | 19.5% |
| Other | 17.8% |
| Low Band Dipole (3.5 -> 10.1Mhz) | 17.5% |
| High Band Dipole (14 -> 30 MHz) | 13.7% |
| Monoband Yagi | 4.3% |
| Quad | 2.7% |

DXers (per 425 DX News Survey)

| Antenna Type | % |
|--------------|-----|
| Beam / Yagi | 52% |
| Vertical | 16% |
| Dipole | 15% |
| Quad | 9% |
| Loop | 4% |
| Other | 2% |
| Sloper | 1% |

Common Elements to All Levels

- QSO Confirmation
 - “Work ‘em First, Confirm Later” – K8DV
 - QSLs
 - LOTW
- S/W
 - DXLab or similar
 - Clusters
- Contests
- “Air” Time



The Silver Bullet

What is the #1 component needed to break a pileup?

- Full Power?
- Great Receiver?
- Great Antennas?
- ???

Survey Says...



Of the 63 DXers that I have interviewed for our club newsletter, 57 stressed that listening is the #1 skill needed to break a pileup.



Listen, Listen,
Listen



Questions and Answers