

Being DX & Good Operating



*DX'ing from the Black
Hole*



World ham population centers (ie: your audience!)

- North America
- Europe
- Asia (JA)



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World ham population centers (ie: your audience!)

- **North/South America**
- US: East, Midwest, West coast
- Central America
- South America



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World ham population centers (ie: your audience!)

- **Europe**
- Western EU (G, F, DL, etc)
- Central EU (OK, SP, HA, etc)
- Northern EU (LA, SM OH, etc)
- Southern EU (I, SV, etc)
- Eastern EU (UA6, LZ, YO, etc)



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World ham population centers (ie: your audience!)

- **Asia**
 - Western Asia (HZ, 4J, etc)
 - Central Asia (VU, JT, UN, etc)
 - East Asia (JA, BY, HL, etc)
 - Southern Asia (HS, 9V, YB, etc)



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World ham population centers (ie: your audience!)

- *The “Forgotten” areas!*
- VK/ZL
- YB
- ZS
- VP8



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The Polar Paths

- These will be the most difficult paths for some of your “audience”
- Where is the antipode to your DX QTH?
- What paths to your DX QTH transverse or are close to the auroral zones?
- How do you determine these?



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TERMINAL A: 18.30 N 64.85 W Virgin Is. Sunrise/Set: 1012/2214 UTC Bearing to B: 338.7 deg
TERMINAL B: 35.00 N 137.00 E Japan Sunrise/Set: 2043/0848 UTC Bearing to A: 24.9 deg
SSN: 49.4 Flux: 101.0 K: 1 **THIS IS A POLAR PATH** Path Length: 13656 km

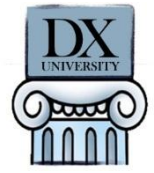
SIGNAL LEVELS IN dB ABOVE 0.5 µV

UTC	MUF	3.6 MHz	7.1 MHz	10.1 MHz	14.1 MHz	18.1 MHz	21.2 MHz	24.9 MHz	28.3 MHz
0000	22.9				16 A	40 A	41 B	40 C	41 D
0030	21.7			1 A	16 A	40 A	41 B	40 D	41 D
0100	20.5			1 A	17 A	40 B	41 C	40 D	41 D
0130	19.3			1 A	17 A	40 B	42 C	41 D	
0200	18.0			2 A	17 B	40 C	42 D	41 D	
0230	16.6				29 A	41 C	42 D		
0300	15.1				30 B	41 D			
0330	14.8			0 A	31 B	41 D			
0400	14.8			3 A	32 B	42 D			
0430	14.6			5 A	33 B	42 D			
0500	14.4			7 A	30 C	43 D			
0530	14.1			22 A	31 C	43 D			
0600	13.9		2 A	25 A	31 C	44 D			
0630	13.8		8 A	27 A	32 C	44 D			
0700	13.6		25 A	18 A	46 C	45 D			
0730	13.6		30 A	29 A	47 C	45 D			

Availabilities A: 75 - 100% B: 50 - 75% C: 25 - 50% D: 1 - 25%

Signal levels suppressed if below 0 dB relative to 0.5 µV or if predicted availability is zero

Press F1 for Help



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TERMINAL A: 9.10 S 159.50 E Solomon Islands Sunrise/Set: 1916/0715 UTC Bearing to B: 343.5 deg
 TERMINAL B: 52.20 N 1.00 W England Sunrise/Set: 0553/1802 UTC Bearing to A: 27.3 deg
 SSN: 49.4 Flux: 101.0 K: 1 **THIS IS A POLAR PATH** Path Length: 14908 km

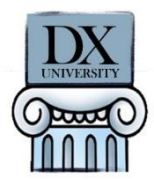
SIGNAL LEVELS IN dB ABOVE 0.5 μV

UTC	MUF	3.6 MHz	7.1 MHz	10.1 MHz	14.1 MHz	18.1 MHz	21.2 MHz	24.9 MHz	28.3 MHz
2230	13.3				9 D	28 D			
2300	12.5				7 D	27 D			
2330	11.8				5 D				
0000	11.4				4 D				
0030	11.1				2 D				
0100	10.8				1 D				
0130	10.6								
0200	10.5								
0230	10.5								
0300	10.5								
0330	10.6								
0400	10.8								
0430	11.4								
0500	13.4				10 D				
0530	14.7				11 C	25 D			
0600	16.3				12 B	26 D	29 D		

Availabilities A: 75 - 100% B: 50 - 75% C: 25 - 50% D: 1 - 25%
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Show Long Path Show Signal-to-Noise Ratios Close

Press F1 for Help



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How else can Prop predictions help?

- Long path vs Short path
- Which bands can be predicted to be most productive



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Why was H44AJ chiefly on 17m?

- Extensive prop research looked at the two most difficult paths from H44 (EU & NA)



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- Total hours of expected propagation w/ these paths were calculated for each band



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Why was H44AJ chiefly on 17m?

- Extensive prop research looked at the two most difficult paths from H44 (EU & NA)
- Total hours of expected propagation w/ these paths were calculated for each band
- Most total hours of expected prop between H44 and EU/NA was on 17m

tu: K6VVA



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Your transmit frequency

- Ideally should be announced in advance
- Avoid established QRGs (ie: 14.220-SSTV)
- Be aware of other DXpeditions
- Use “expected” QRG (ie: IOTA QRGs)



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Listening QRGs: work SPLIT!

- If you expect to be “busy”, start w/ split op’n
- CW start up 1-3, then up 1-5 & max up 1-10
- SSB start up 5, then up 5-10 & max up 5-15.



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Breaking down the pile-up

- Listen by numbers
 - “QRZ calls w/ #1 only”



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Breaking down the pile-up

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 - “QRZ calls w/ #1 only”
- Listen by call-areas (US/VE)
 - “QRZ only W9s”



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Breaking down the pile-up

- Listen by numbers
 - “QRZ calls w/ #1 only”
- Listen by call-areas (US/VE)
 - “QRZ only W9s”
- Listen by continents
 - “QRZ EU only”



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Breaking down the pile-up

- Listen by numbers
“QRZ calls w/ #1 only”
- Listen by call-areas (US/VE)
“QRZ only W9s”
- Listen by continents
“QRZ EU only”
- Listen by continents/numbers
“QRZ only #3 in JA”



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Pileup Strategies

- Often difficult to listen on one QRG
- Move listening frequency up/down
- Look for “holes” in the pileup
- Listen at random points



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Pileup Strategies

- OK to come back to partial callsigns



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Pileup Strategies

- OK to come back to partial callsigns
- But you must persist & get the full callsign



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Pileup Strategies

- OK to come back to partial callsigns
- But you must persist & get the full callsign
- Then you must let that station know you got his callsign OK



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Pileup Strategies

- OK to come back to partial callsigns
- But you must persist & get the full callsign
- Then you must let that station know you got his callsign OK
- **Resetting the pile-up is a last resort**



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“Reset” the pileup

- The station you called isn't there
- The pile keeps calling, in spite of your requests to “QRX, only the K9”
- You lost the “rhythm” of the pile up



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“Reset” the pileup

- On CW, you should have a “CQ” already programmed on an “F” key
- On SSB, call CQ w/ your QSX frequencies
- Your goal is to re-sync your transmitting & their receiving
- In a pileup, **Never** reply to a station you didn't call



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Pileup Strategies

- You control the pileup



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Pileup Strategies

- You control the pileup
- The pileup won't go much higher than the highest frequency you took a caller



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Pileup Strategies

- You control the pileup
- The pileup won't go much higher than the highest frequency you took a caller
- Don't take a caller too close to your transmit frequency



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Mob Psychology

- The pile-up can become unruly if:
- You break your own rules
- You can be bullied (“stolen” QSOs)
- They think they are disenfranchised
- They don’t understand your operating style
- You “lose your temper!”



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Sign your callsign often

- You may have an established pile-up but new-comers (w/o internet spots) will not know who you are & QRM your Xmit frequency w/ persistent “??” or similar queries



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Identifying

- Some do it after every QSO
- Some seem to never do it
- However you decide (ideal is at least every minute), always end your QSO w/ instructions:
- “up”, “up 3”, “up 3 EU” etc



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Dupes

- I work all dupes:
It's easier & quicker than arguing
I don't know if their first QSO was OK w/ them
Makes the pile-up more comfortable



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Maintain a Rhythm

- Avoid long periods of silence (who's the JA1?)
- Puts everyone at ease
- Make them think they could be the next QSO
- Keeps callers in synch w/ your operating



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CW Speed

- Too fast can slow your QSO rate
- Slower speed w/ weak sigs/QSB
- Slow down towards end of DXpedition



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Confirm corrected Call Signs

- You responded to KE9E but Jerry/KE9I corrected his callsign-how do you respond?
- “KE9I R TU UP”
- Not: “R TU UP”
- You must let the caller know you “fixed” his callsign in your log



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Keep your audience informed

- **Tell them when you:**
 - need to fill the generator
 - need to take a break (how long?)
 - need to nap (when QRV again?)
 - are changing bands/modes
 - explain changes in your rhythm
(ie: high QRN, wind/rain, etc)



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Working “tail-enders”

- Very hard to do correctly
- I don't usually work “tail-enders” because:
If I do, many stations who don't know the technique will call over my next QSOs & just cause QRM



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from our website:

“Best Practices for DXpedition Operating”

Summary of our goals:



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1. **Check transmit and receive frequencies before starting.**



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1. Check transmit and receive frequencies before starting.
2. **Use split operation from the beginning.**



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3. **Maintain a rhythm of regular transmissions-no long silences.**



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3. Maintain a rhythm of regular transmissions-no long silences.
4. **Do not use excessive speed on CW. Slow down when signals are weak.**



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2. Use split operation from the beginning.
3. Maintain a rhythm of regular transmissions-no long silences.
4. So not use excessive speed on CW. Slow down when signals are weak.
5. **Reduce speed further on CW to pass information to the pileup.**



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6. **Sign your call sign at least every minute.**



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7. **Issue calling instructions after every QSO, for example: “UP 5 EU” on CW or “NA UP 5-10” on SSB.**



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8. **Minimize Pileup Width: Suggest Max 5-8 kHz on CW & 10-15 kHz SSB.**



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9. **Move receive frequency in a generally regular pattern.**



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10. **Repeat corrected call signs so everyone is confident of being correctly logged**



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11. **Work and log dupes, it's quicker.**



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12. **Don’t leave the pile-up hanging. Keep the callers informed about QRT/QSY, etc.**



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 13. **Maintain a moderate, but “in-charge” attitude.**
-



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Questions?



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Reference: URLs

Link to W6ELprop: <http://k9la.us/html/tutorials.html>

[http://www.dxuniversity.com/showpage.php?id=20&title=Best Practices for DXpedition
Operating](http://www.dxuniversity.com/showpage.php?id=20&title=Best+Practices+for+DXpedition+Operating)

[http://www.dxuniversity.com/showpage.php?id=10&title=How We Will Operate](http://www.dxuniversity.com/showpage.php?id=10&title=How+We+Will+Operate)

[http://www.dxuniversity.com/showpage.php?id=24&title=How to Work Us](http://www.dxuniversity.com/showpage.php?id=24&title=How+to+Work+Us)

[http://www.dxuniversity.com/showpage.php?id=31&title=DXPeditioning Basics
2013](http://www.dxuniversity.com/showpage.php?id=31&title=DXPeditioning+Basics+2013)



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