

6.3 WH Radar Image Problems

If the radar image does not look correct, or instead of the usual image you get just a small dot in the middle of the radar screen, always restart the laptop computer and restart the radar computer remotely.



Figure 1. Radar Image from normal to problematic.

If the image appears to shift its heading back and forth (Figure 1), follow the following steps to correct it:

- 1. Restart WinHorizon, try image again
- 2. Restart radar computer remotely
 - a. Open *VNC Viewer* (Desktop), click OK, type password ("admin" is default password)
 - b. Click START, Click SHUTDOWN, Click RESTART
 - c. Open WinHorizon, try image again



- 3. If problem persists, continue on to manually enter "BPPerSweep" in WinHorizon settings file:
 - a. Find out what the "BPPerSweep" is
 - i. Open *VNC Viewer* (Desktop)>OK> password ("admin" is default password)
 - ii. Open *Radar Sample* (Remote Computer Desktop) (Figure 2)
 - iii. Note: The antenna needs to be working (rotating) once you are in Radar Sample in order to open USB VP Extended

Control.

- iv. If the antenna is not rotating, follow the steps in 6.2 to reset the High Voltage Board
- b. Click Tools and open the USB VP Extended Control window
- c. Record "BPPerSweep" value (Figure 3)
- d. Click SAVE and close USB VP Extended Control
- e. Close Radar Sample
- f. Open the following directory in the radar computer: C:\Remote

Radar\RTI WH 1.5.0.012\Radar



Figure 2. Radar Sample program and Icon.

Reg	Ind	Val	ENTER	Video (NEG	TRIG OFF HI	
(hex)	(hex)	(dec)		C POS	TRIG OFF LO	
Trigger					VIDEO DIV	
Edge	HIGH	100000	00000	220		
	LOW 4			• 18		
(• UP	GAIN 4				GAIN X VIDEO	
Bearing Pulse				- 25 - 5	Sweep time VP: 2.495446 SweepCntr: 54	
Edge	HIGH 4			• 22	- SHM#: 70 BPperSweep: 450,426 vs DB: 450, Ave: 450,426	
C DN	IOW 4			18	TrigParSweep: 3025 ScanTime: 16496	
(€ UP	CATH	-			Rep rate (Hz, calc): 1212	
	-	1000000	Щ.0000	- 17	Missing signals (last sweep): Trg: 0 BP: 0	
Ship's H	eading Marl	ver			BulkReads (last sweep): 3135 size: 32768	
Edge	HIGH 4	1		1 22	Scans (last sweep): 3026	
C DN C UP	LOW T	1	1		Packet length: 528 (528) = 157607 < 0 > 33707	
	-	1		- 10	Oscilloscope Mode	
	GHIN 4			1 7	UFF (* Video C Trig C BP C SHM	

Figure 3. USB VP Extended Control in Radar Sample showing BPPerSweep value of 450.426.

- i. Note: "Remote Radar" folder might be named "RTI" and the WinHorizon version numbers might be different.
- g. Open the file "usbvpfull Furuno FR7111.cfg" in notepad
 - i. Note: the Furuno number might be different depending on the Furuno antenna you are using
- h. After the last line (TuneRange = 4) (Figure 4) add the line "BPPerSweep = 451" (Figure 5)



RADAR PROTOCOLS 6.3 WinHorizon Radar Image Problems Updated: March 31, 2011

📕 usbvpfull - Furuno FR7111.cfg - Notepad	_O×
File Edit Format View Help	
# This file contains test config values for 1 # USB VP radar video processor board	RTI'S 🖃
TrigHigh = 200 TrigLow = 180 TrigGain = 7 TrigEdge = 1	
BPHigh = 200 BPLow = 180 BPGain = 7 BPEdge = 1	
SHMHigh = 200 SHMLow = 180 SHMGain = 7 SHMEdge = 1	
TrigOffHigh = 0 TrigOffLow = 0 VidDiv = 0 VidGain = 11 VidXGain = 11	
VidThresh = 166 VidRef = 255 NegVid = 1	
# ACM board TuneRange = 4	
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Figure 4. Original "usbvpfull – Furuno FR7111.cfg" file.

Figure 5. Modifications made to "usbvpfull – Furuno FR7111.cfg" file: BPPerSweep value added to end.

- i. Save and Close "usbvpfull Furuno FR7111.cfg".
- j. Restart WinHorizon
 - i. Note: you can test WH directly from the remote radar computer through VNC viewer, just be sure to select "USB" instead of "TCP Active" or "PLAYBACK" in the MODE tab