A beginners guide to 30M QRSS reception.

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It is assumed that you already have a connection from your receiver's audio output into your PC's sound card and that you are familiar with your PC's audio recording controls, etc. Such details can be found elsewhere on the web.

1 Download and install Argo from - <u>http://www.weaksignals.com</u>

Do **NOT** be tempted to use more versatile and complex FFT programs such as Spectran or Spectrum Lab until you have gained some experience with Argo.

2 Set your receiver's mode to USB.

NB - Using "CW mode" will only offer QRM rejection advantages when appropriate narrowband CW filters are employed. While learning to drive Argo for the first time, or if you do not have a narrowband CW filter, "USB mode" is recommended. Argo's S/N ratio will <u>not</u> be improved by the use of narrowband CW filters when QRM is absent. Understand the method outlined in this text before using CW mode. Different settings will be required.

- 3 Tune your receiver to 10139.000 kHz.
- 4 Run Argo.
- 5 Set Argo's **Mode** as shown below -



6 Click Argo's **Start** button as shown below.



7 Adjust Argo's audio levels as monitored with Argo's bar graph indicator by using your PC's Audio Recording controls. Set Argo's 'Sensitivity' and 'Contrast' sliders to mid-scale as shown below.

Keep Argo's gain low. 25 ~ 50% of full scale is plenty. Argo's bar graph should **always** be green as shown below. Argo's AGC is useful initially and should be ON. NB - There is absolutely no advantage in employing high audio gain, in fact that can easily cause unwanted artifacts to appear on your display.



8 Select Argo's **Slow** mode as below –

4 Argo V1 build 134							
Argo	Setup	Mode	Speed	Palett			
9:05:4	14 PM	20/02	✓ Slow				
n Mode : 3s dots, slow			Normal				
Distant and the			Fast				

9 Adjust Argo's frequency slider so that 1000 Hz is near to the bottom of Argo's screen as shown below.

NB - 1000 Hz will now be equal Argo's equivalent of 10140.000 kHz, which is the lower edge of the 30M QRSS sub-band. 10140.000 – 10140.100 is where you will see almost all QRSS activity on 30M.



10 Click Setup then Calibration and set the Offset to your receiver frequency (10139000 Hz) as shown below –

Argo Frequency Scale Calibration 🛛 🔀								
	This panel allows to exactly calibrate the frequency scales							
	Measure with the greatest accuracy you can achieve an audio tone, input its value in the field below, together with the value that Argo will display when fed with that signal. Use the maximum resolution of Argo. (more)							
h	Measured frequency 1000	Offset 10139	1000					
[Displayed frequency 1000							
This adjustment is for the horizontal scrolling mode You may want to repeat it for the other mode								
	ОК	Cancel						

11 Click OK.

You are now set up to receive 30M QRSS signals. Your screen should now appear similar to the image below – $\,$

4 Argo V1 build 134				×
Argo Setup Mode Spee	d Pa <u>l</u> ette <u>C</u> apture L	og About	000	0.17
3:21:31 PM 10/7/2007	Peak at 10140042.00	U (-65.6 dB)	GHS.	S Viewer
Mode : 3s dots, slow	Estim : Magnitude	📃 📕 Full Band Vie	ew 📃 Save to WAV file	Hz
				10140100
				_ 10140090
				10140080
				_ 10140070
				10140060
				_ 10140050
				10140040
				10140030
				10140020
				S_ 10140010
			NA THE PARTY	10140000
Agc C Lo C Hi C	Contrast	Capture OFF	Ticks : 10 seconds	op Exit

Argo's various additional functions can now be explored. You will probably wish to activate Argo's **Screen Capture** facility once you start seeing a few QRSS signals appearing on Argo's screen. Good luck with your QRSS reception.