Starband Aiming Guide

Hot Tip! Pre-adjust for ASI:	When doing initial aiming with a digital meter such as a Birdog or Digisat, after adjusting for the highest signal with azimuth and elevation adjustments, move your *azimuth* aim a little west, dropping the signal reading by a couple of points on the digital scale (lower scale on Birdog when "Found" indication is present). Then, lower the *elevation* to drop the signal reading a couple more points. We have found that using this method will often give you passing ASI numbers without further adjustment. Fine tuning for the best numbers possible is always the best practice.

Co-pol:	Minimum Acceptable:	*Co-pol MUST be adjusted to highest number attainable*
	23	**Normally, adjusting for best cross-pol and ASI will give you an acceptable co-pol.**

Cross-pol:	Maximum acceptable	*Cross-pol MUST be adjusted to the lowest number attainable.*
	3.0	**Adjusting for lowest cross-pol:**
	First, adjust the azimuth and elevation per the "ASI pre-adjustment" instructions. If the X-pol is still high after that, you adjust the polarizer (Loosen all four screws in the donuts, and make tiny adjustments of the wave guide) until you get the X-pol as low as possible. It normally isn't hard to get the X-pol down to 1 or below. If, after minimizing with the polarizer, it is still high, readjust azimuth and elevation specifically for a lower cross pol number. Use skew for gross cross-pol adjustments.	

ASI:	Maximum acceptable:	*ASI MUST be adjusted to the lowest number attainable.*
Adjacent Satellite Interference	5.0	**Adjusting for lowest ASI:**
	Using CVACS, adjust for lowest ASI number. CVACS will read ASI as "East, Co pol X.X db". The "East" means that your ASI is being measured east of your assigned satellite. That means you must move your aim West (to the right) to lower the interference on satellites to the east. Moving elevation down slightly may also help. Make tiny adjustments and continue to monitor your Xpol and co-pol.	

Importance of Cross-pol (X-pol) and ASI	Cross-pol and ASI are monitored by the NOC. A high cross-pol indicates a signal that is interfering with other transponders on the satellite. A high ASI is interference with an adjacent satellite. If either condition is detected by the NOC, the user will be sent an email to correct the problem within 24 hours. If the problem is then not corrected, the user's account will be shut down.

Signal Quality:	Minimum Acceptable	Marginal*	*Adjust for highest Signal Quality attainable!*
As measured in your modem Status screen.	5	5 to 7	
	If your signal gets to the 4.8-5.2 range, you are going to lose service. Let's say you have a sig quality of 5.5 and a rainstorm comes in that causes you a 2.5db drop in signal quality. That would leave you w/ a sig quality of 3, and also leave you offline. Let's take the same scenario, but say you are starting w/ a sig quality of 8. A loss of 2.5db will leave you at 5.5, marginal, but probably still online. Signal quality will be directly proportional to your peaked signal on your Birdog meter, so always make sure that your signal is at the highest peak possible with your Birdog. Be meticulous with your fine-tuning! Cross Pol and ASI trump signal quality, but always start fine tuning with the best signal possible.			