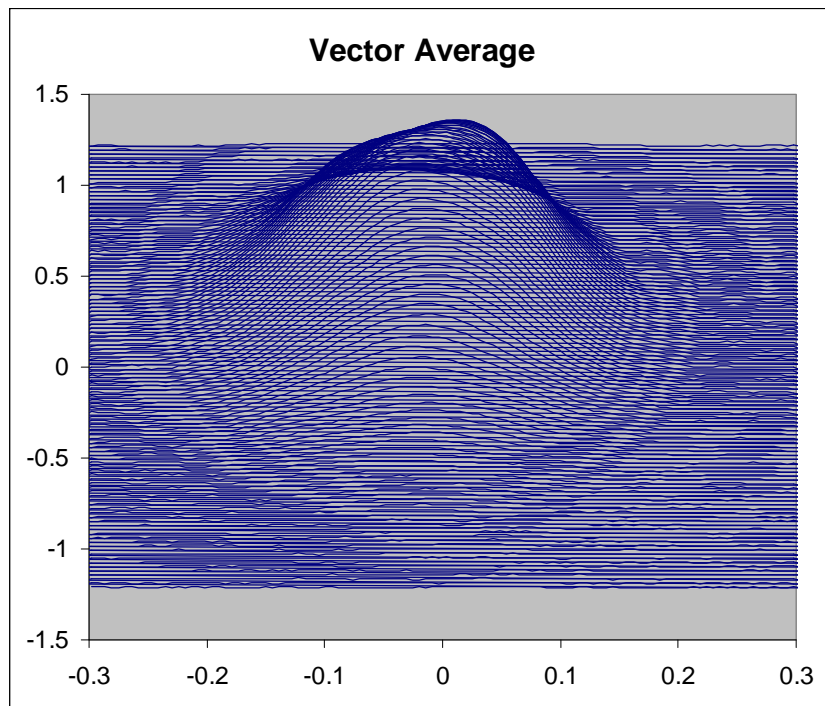
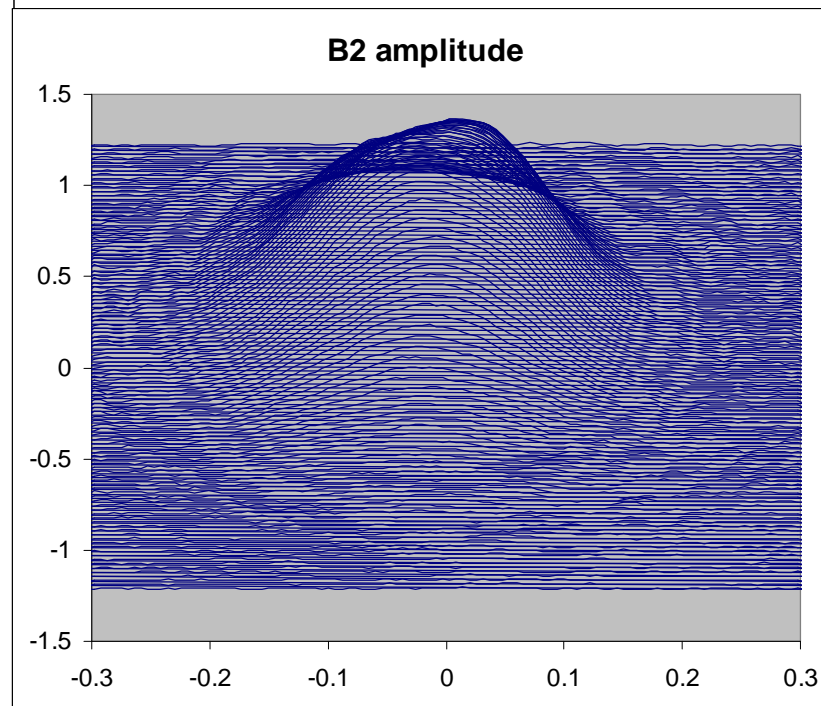
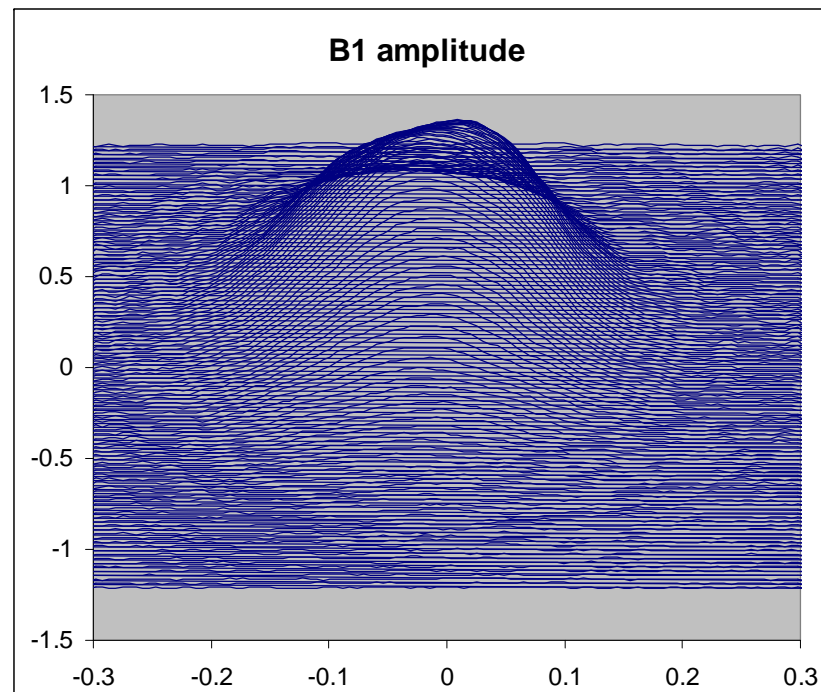


A bit more on the data set 103 (Band 9).

Here are the amplitudes of the two beams  $|B1|$  and  $|B2|$  on the right

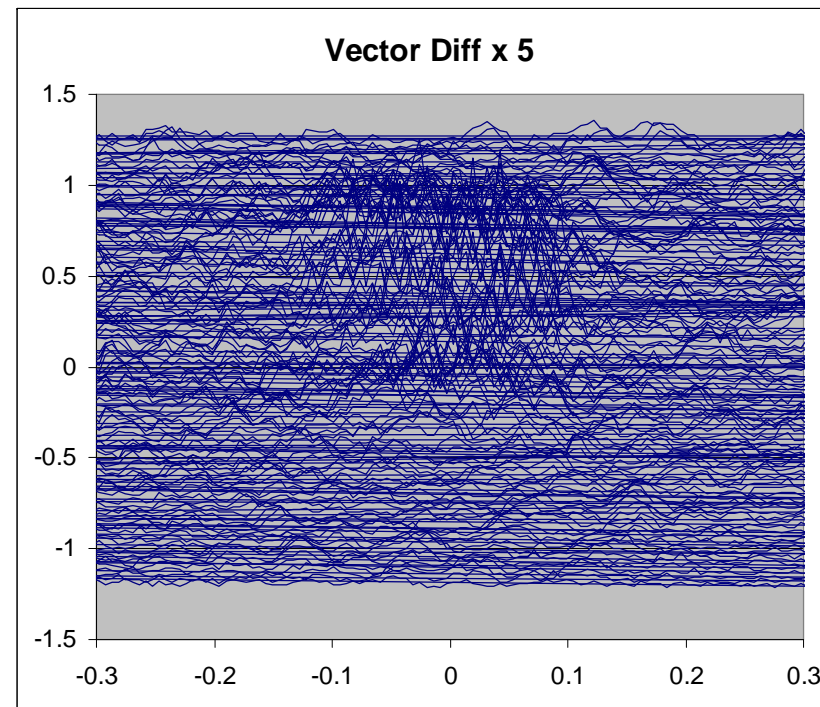
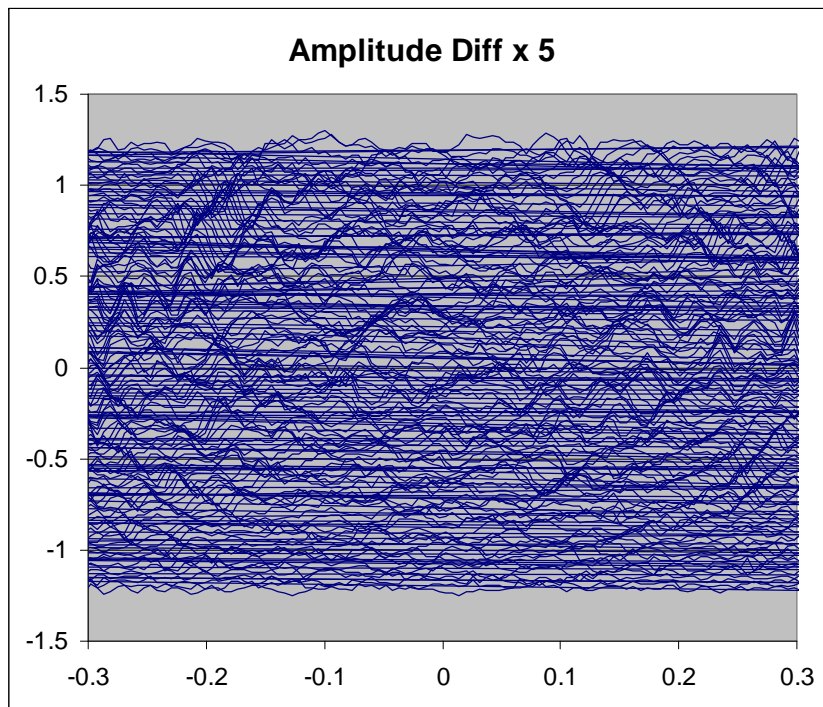
And below is the average formed in the agree way –  
i.e. add 90 degrees to the phase of beam 2 and then vector average.  
So this is  $| (B1 + iB2)/2 |$ .

One can see that the noise on the average is clearly lower  
than on the individual data sets.



If you take the difference of the amplitudes  $|B1| - |B2|$  (left) you can clearly see the effects of the reflected signal. Note that they are spread right across.

On the other hand the amplitude of the vector difference  $|B1 - iB2|$  is noisy where the real signal is strong. I think this must be the effect of phase fluctuations in the system (or possibly jitter in the Z-position of the probe). You would expect these to show up in these circumstances.



I suppose that the transform of the right-hand plot would show us something about the level of errors that must be present in the data we are getting at present.