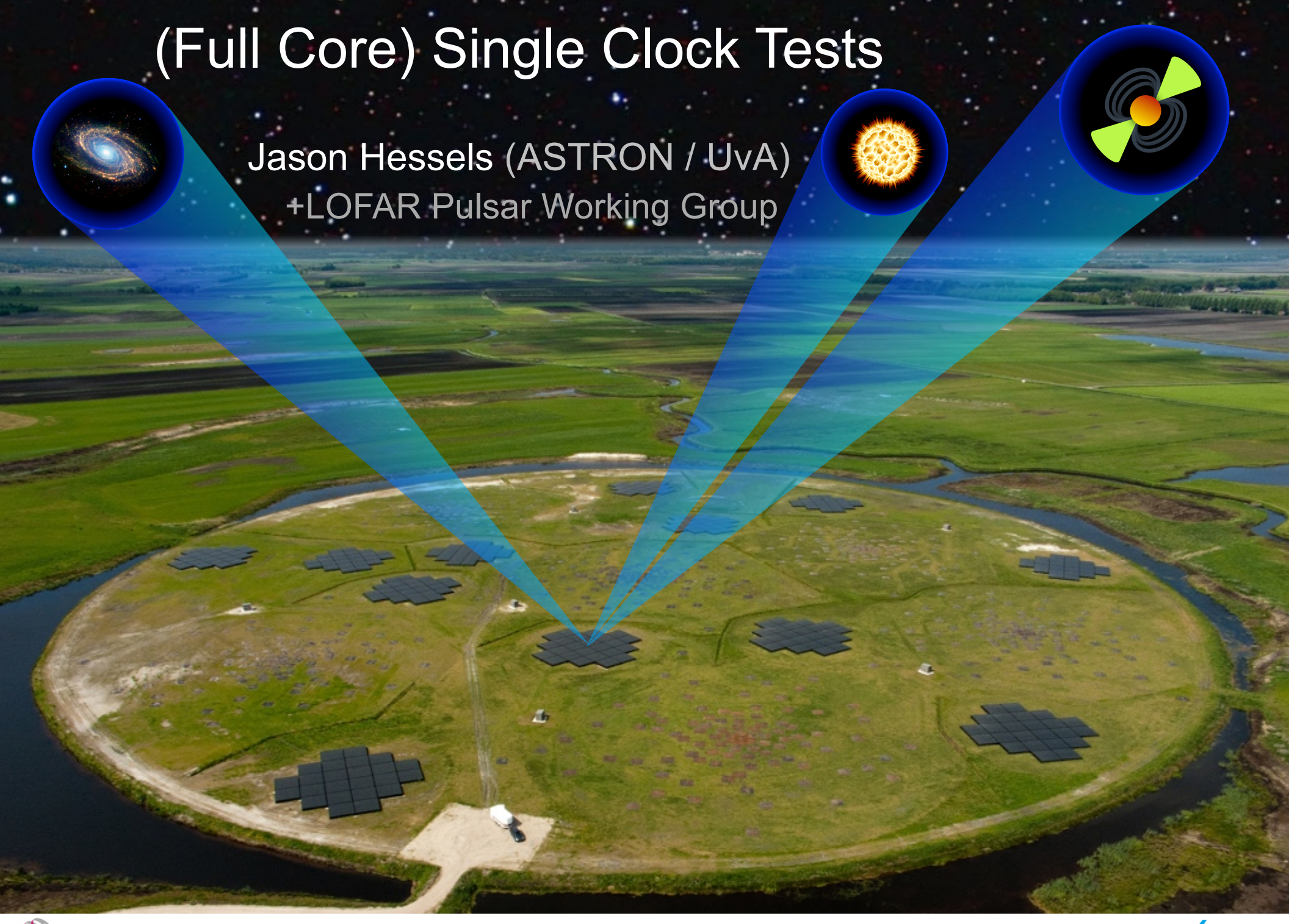
(Full Core) Single Clock Tests

Jason Hessels (ASTRON / UvA)
+LOFAR Pulsar Working Group

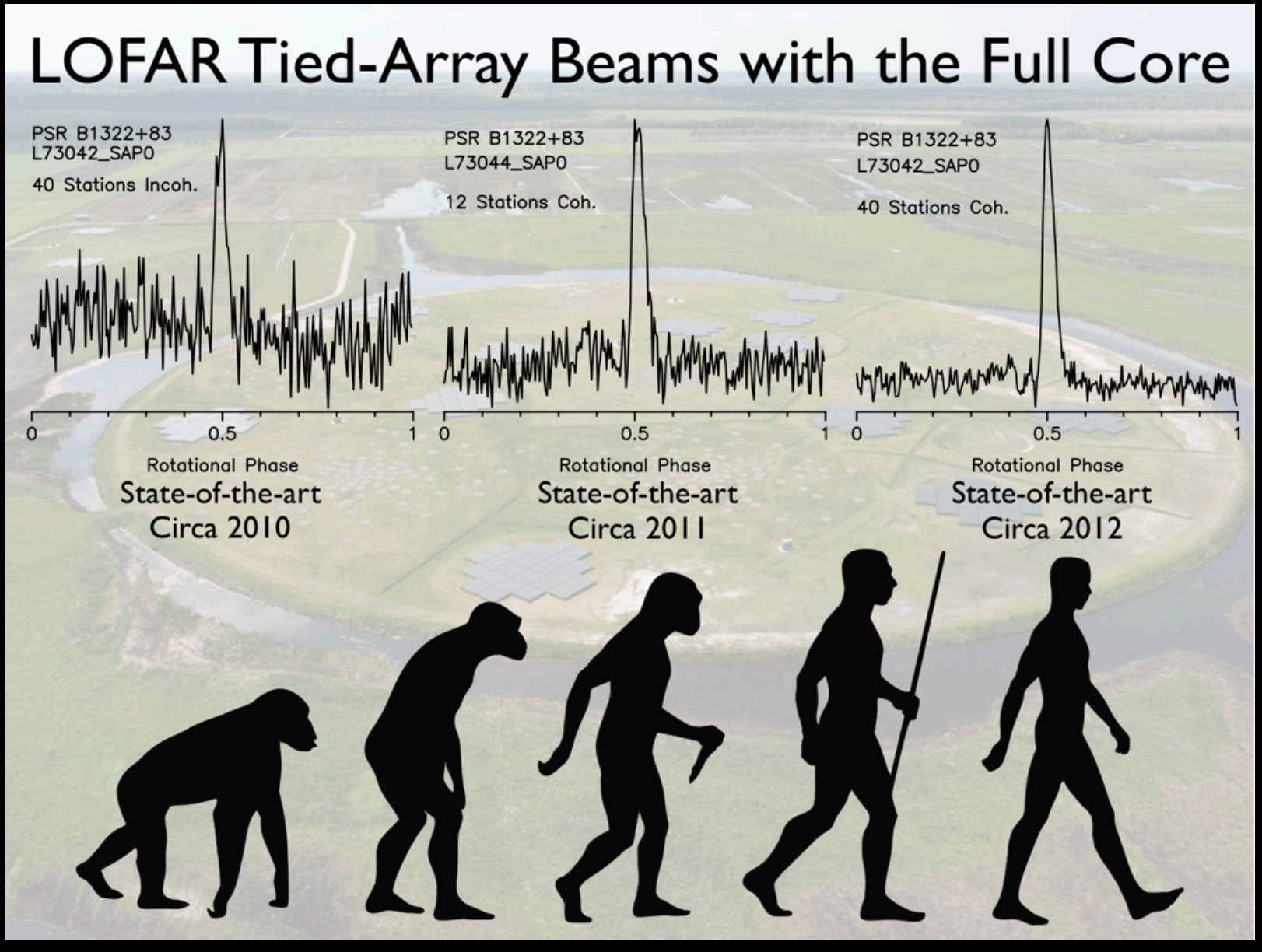


All Core HBA Stations Now Have Delay Calibration

Name	Delay (ns)	Error (ns)	Error (%)	Flagged
CS001HBA0	0.010	0.212	0 %	
CS001HBA1	-0.143	0.004	0 %	
CS002HBA0	-0.223	0.041	0 %	
CS002HBA1	-0.581	0.030	0 %	
CS003HBA0	-0.086	0.087	0 %	
CS003HBA1	-0.013	0.121	0 %	
CS004HBA0	0.345	0.822	0 %	
CS004HBA1	0.004	0.686	0 %	
CS005HBA0	0.209	0.019	0 %	
CS005HBA1	0.237	0.106	0 %	
CS006HBA0	-0.433	0.280	0 %	
CS006HBA1	-0.274	0.121	0 %	
CS007HBA0	-0.280	0.360	0 %	
CS007HBA1	0.158	0.235	0 %	
CS011HBA0	-0.586	0.572	0 %	
CS011HBA1	-0.677	0.618	0 %	
CS017HBA0	-0.143	1.064	0 %	
CS017HBA1	-0.183	1.030	0 %	
CS021HBA0	0.340	0.425	0 %	
CS021HBA1	0.362	0.402	0 %	
CS024HBA0	-0.603	0.030	0 %	
CS024HBA1	-0.603	0.007	0 %	
CS026HBA0	-0.206	0.166	0 %	
CS026HBA1	-0.030	0.223	0 %	
CS028HBA0	0.033	0.288	0 %	
CS028HBA1	0.033	0.106	0 %	
CS030HBA0	0.402	0.223	0 %	
CS030HBA1	0.397	0.166	0 %	
CS031HBA0	0.289	0.269	0 %	
CS031HBA1	0.561	0.405	0 %	
CS032HBA0	0.090	0.462	0 %	
CS032HBA1	-0.041	0.450	0 %	
CS101HBA0	0.044	0.030	0 %	
CS101HBA1	-0.081	0.152	0 %	
CS103HBA0	-0.734	0.473	0 %	
CS103HBA1	-0.649	0.325	0 %	
CS201HBA0	-0.206	0.325	0 %	
CS201HBA1	-0.211	0.246	0 %	
CS301HBA0	0.044	0.175	0 %	
CS301HBA1	-0.041	0.019	0 %	
CS401HBA0	0.391	0.087	0 %	
CS401HBA1	0.544	0.235	0 %	
CS501HBA0	0.328	0.265	0 %	
CS501HBA1	0.402	0.300	0 %	

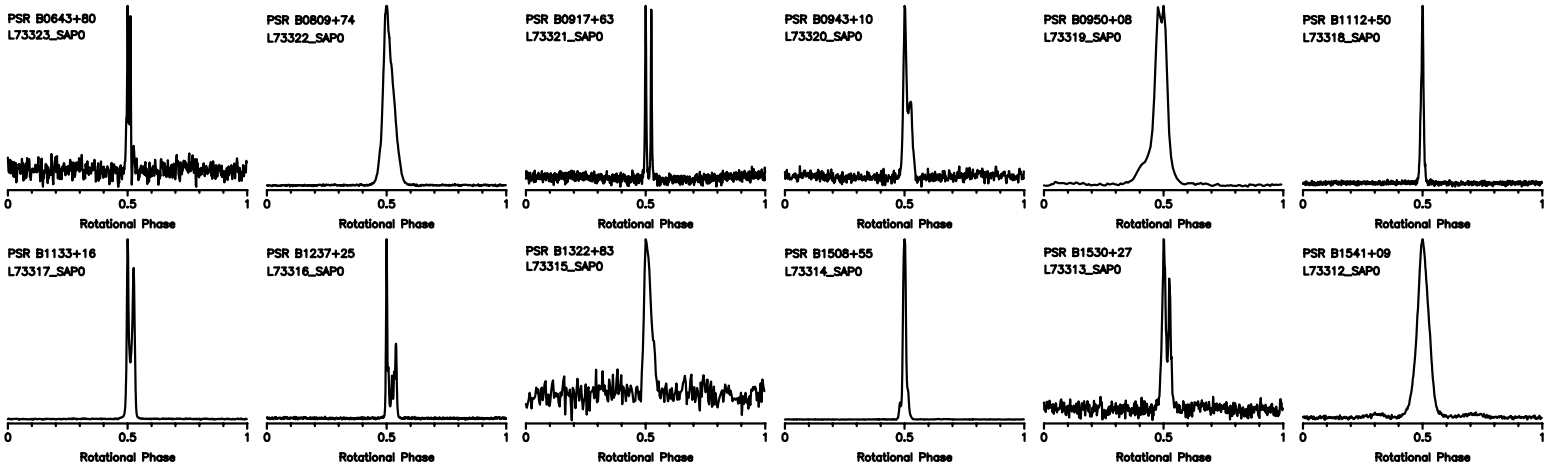
Positional error discovered for CS101 and CS301

Evolution of Beam-Formed Mode Sensitivity

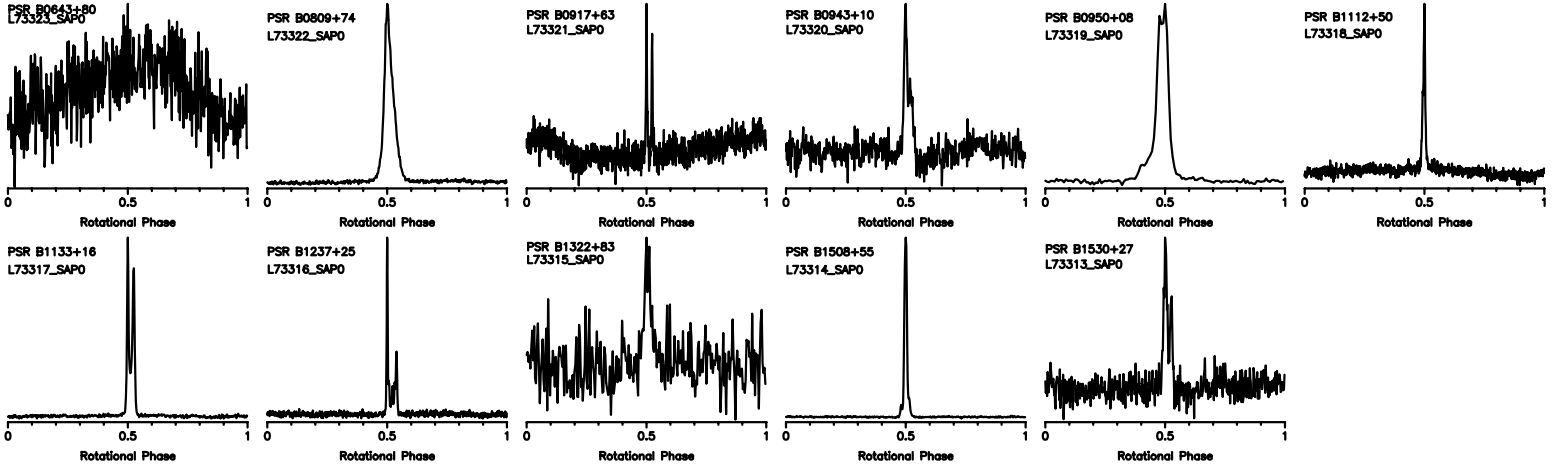


Also Provides Better RFI Robustness

Coherent

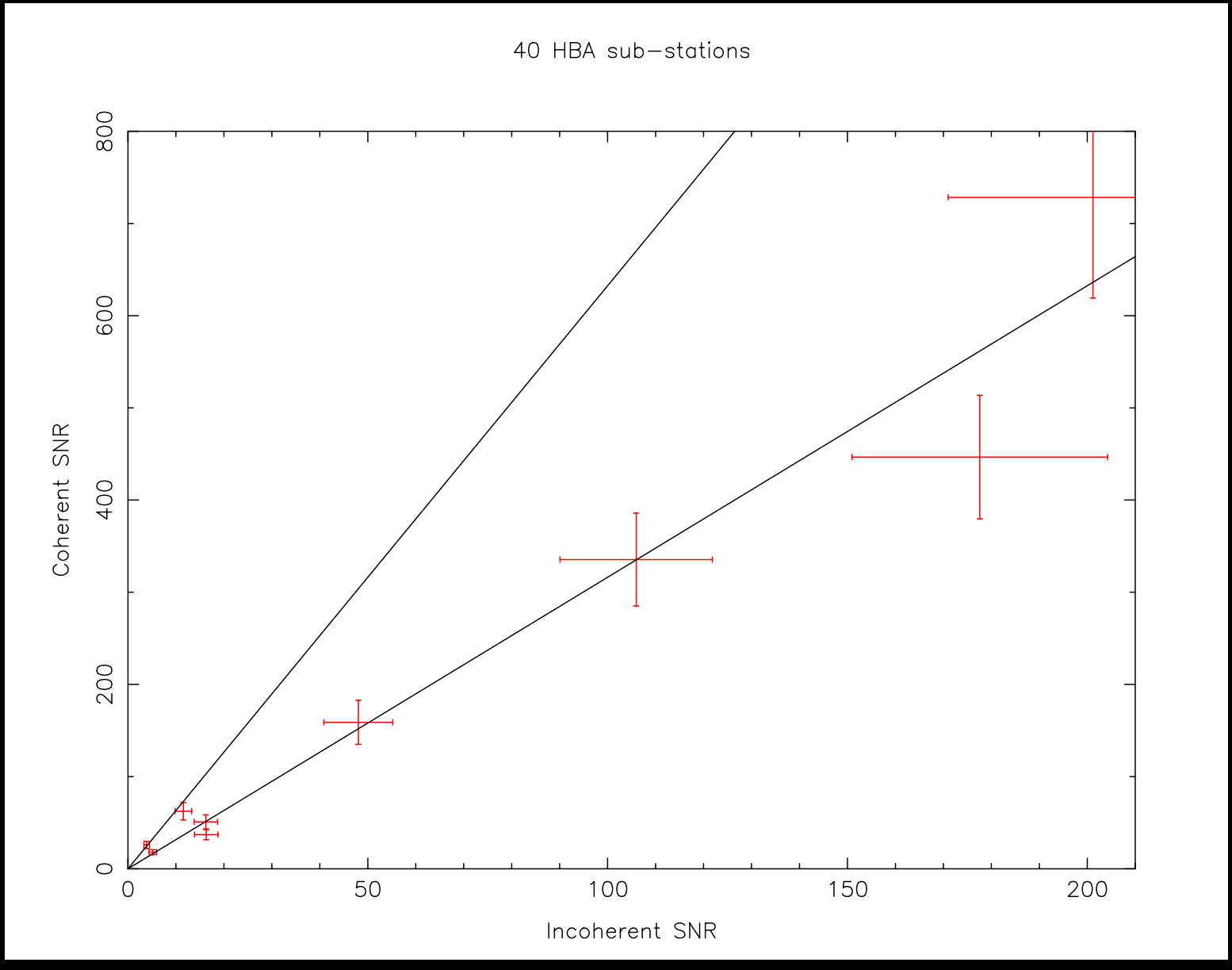


Incoherent



Sums using 40 HBA sub-stations

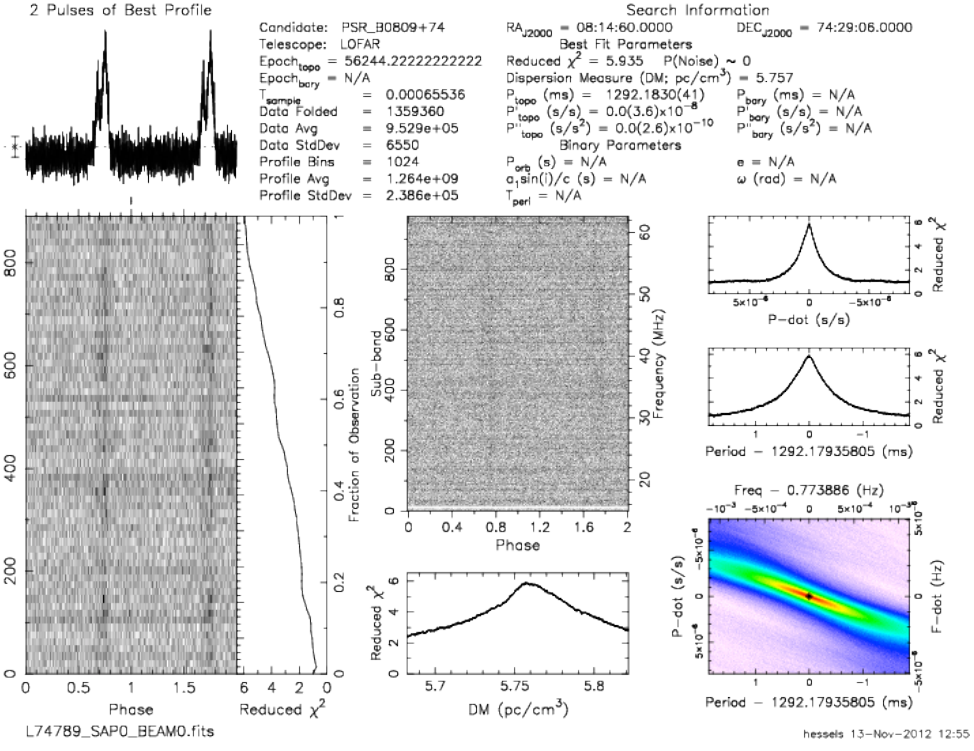
Is Increase in SNR as Expected?



Further tests underway

Next Steps

1) Calibrate the LBA Inner/Outer delays



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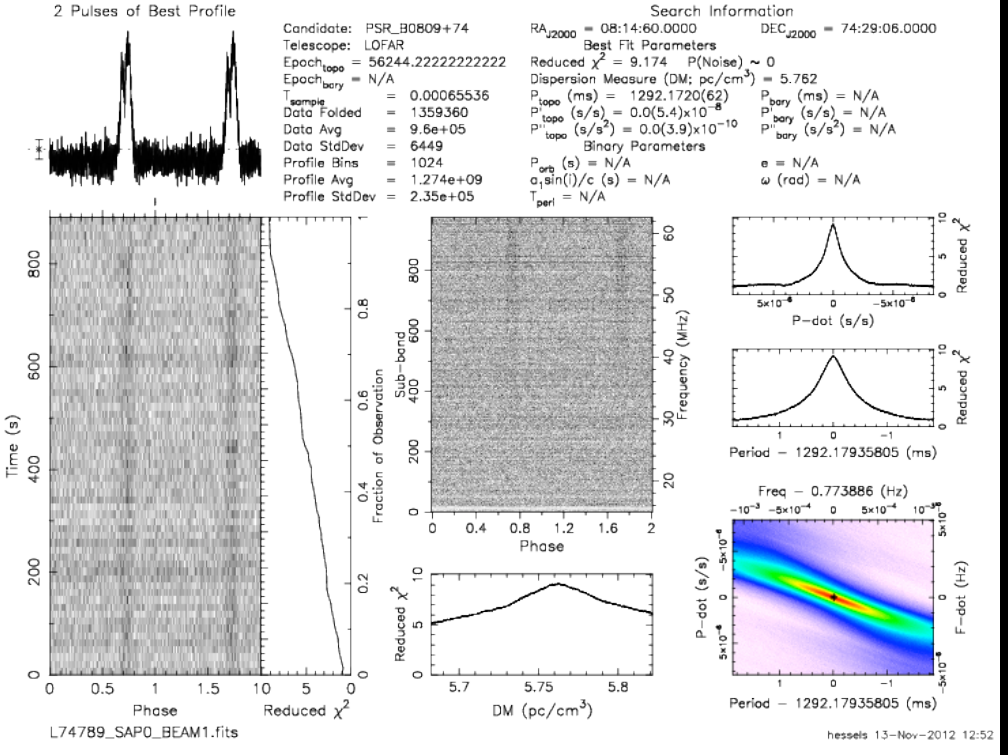
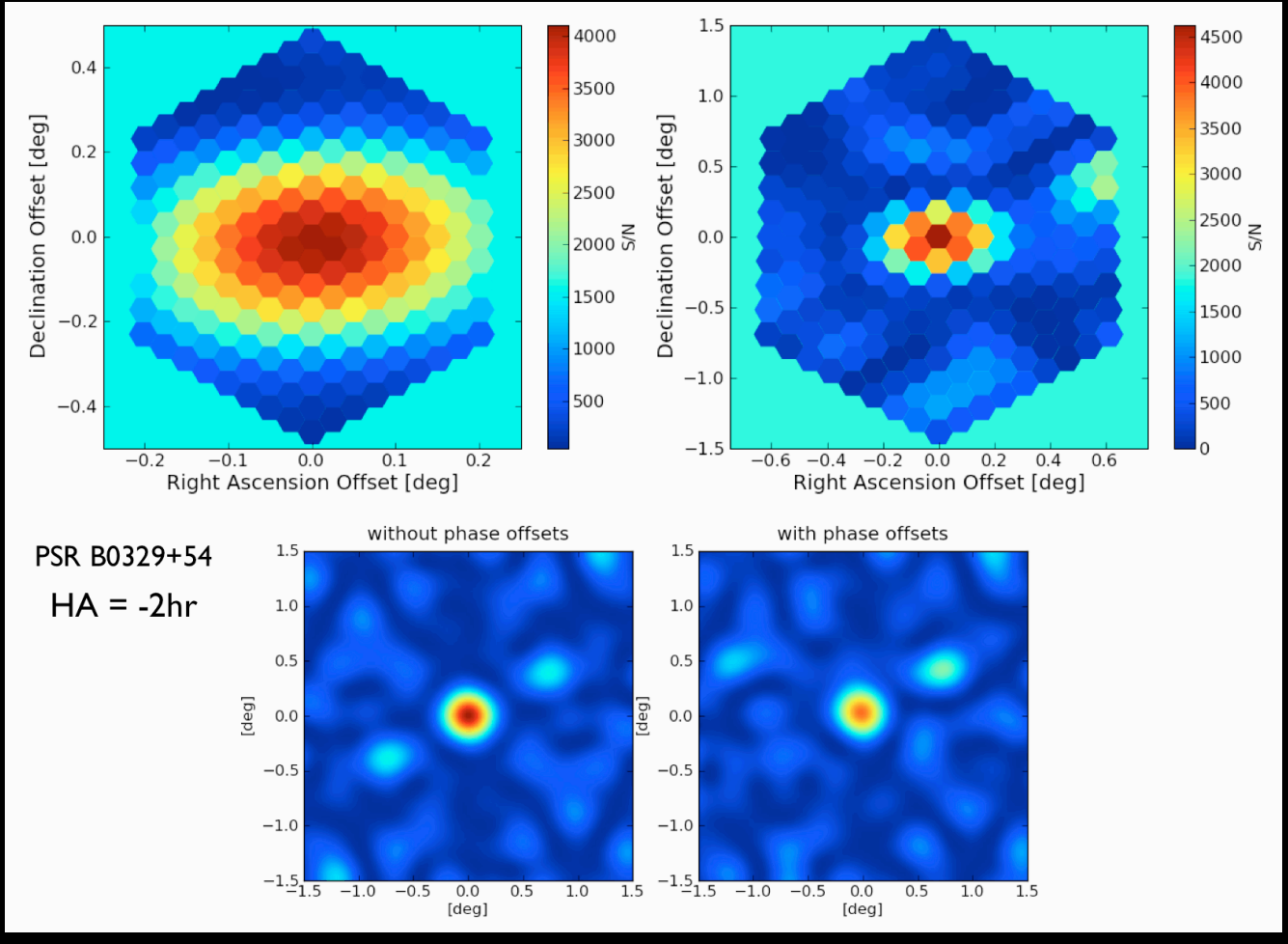


Incoherent

Recent tests show that the LBA delays need tuning

Next Steps

2) Full-core tied-array beam maps



Make similar maps to what we have already done for the Superterp