

# CS-1 developments: 14-21 Feb 2007

Successful beamforming tests Wed - Fri (14-16 Feb)

- L1402 CasA
- L1429 CasA
- L1442 TauA

Plus a long weekend (16-19 Feb)

- L1462: 27h on CasA with 16 microstations (1x48, 15x4 dipoles)  
simultaneous with WSRT-WHAT in 115-152 MHz (continuous frequency coverage)
- L1463: 36h on North Celestial Pole  
(antenna 4 and 12 not available; further clock tests)

# CS-1 developments: 14-21 Feb 2007

## Noise analysis of LBA data:

Casey Law reports

## Effects of rain on selfcal gain solutions:

Still to be analysed

## Ionospheric modelling:

comparison WSRT at 142 MHz with CS-1 at 30 MHz

## Problems:

All experiments with microstations still have DPT-phase as well as uvw errors in MS.  
Correction script written by Wim Brouw, still to be tested. All MS (from L1402) need to be corrected

## Selfcal and imaging:

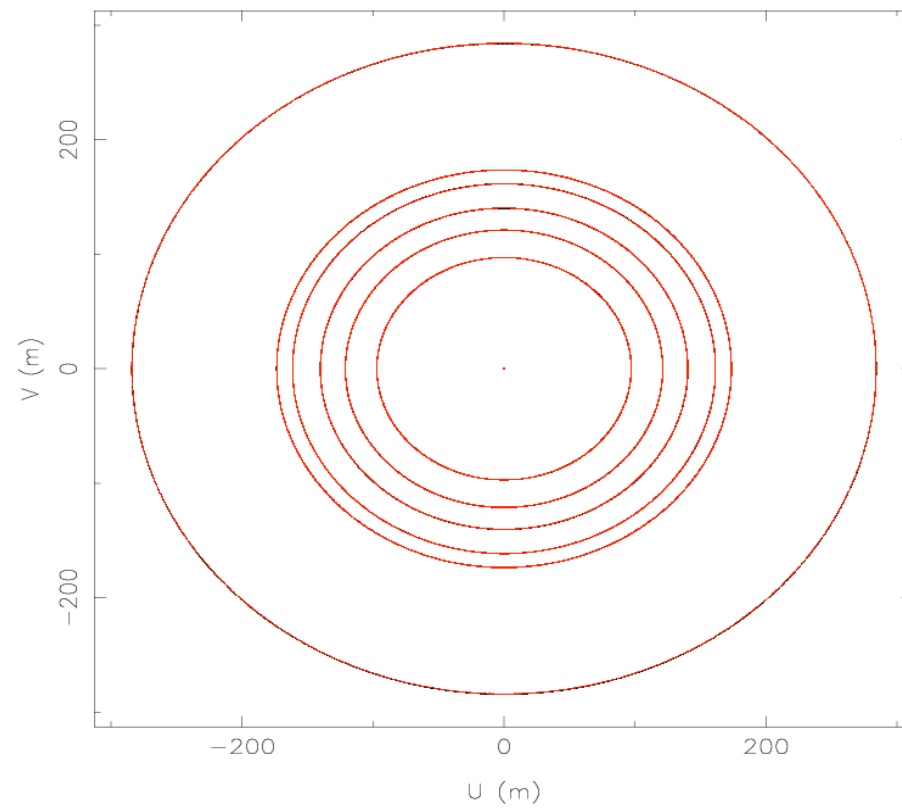
First BBS selfcal and imaging on L1429 (CasA): Joris van Zwieten to report

## Beam model:

Development of analytic beam model for dipole : Sarod Yatawatta to report

# uv-coverage at the NCP (but with still only 4 station 'positions')

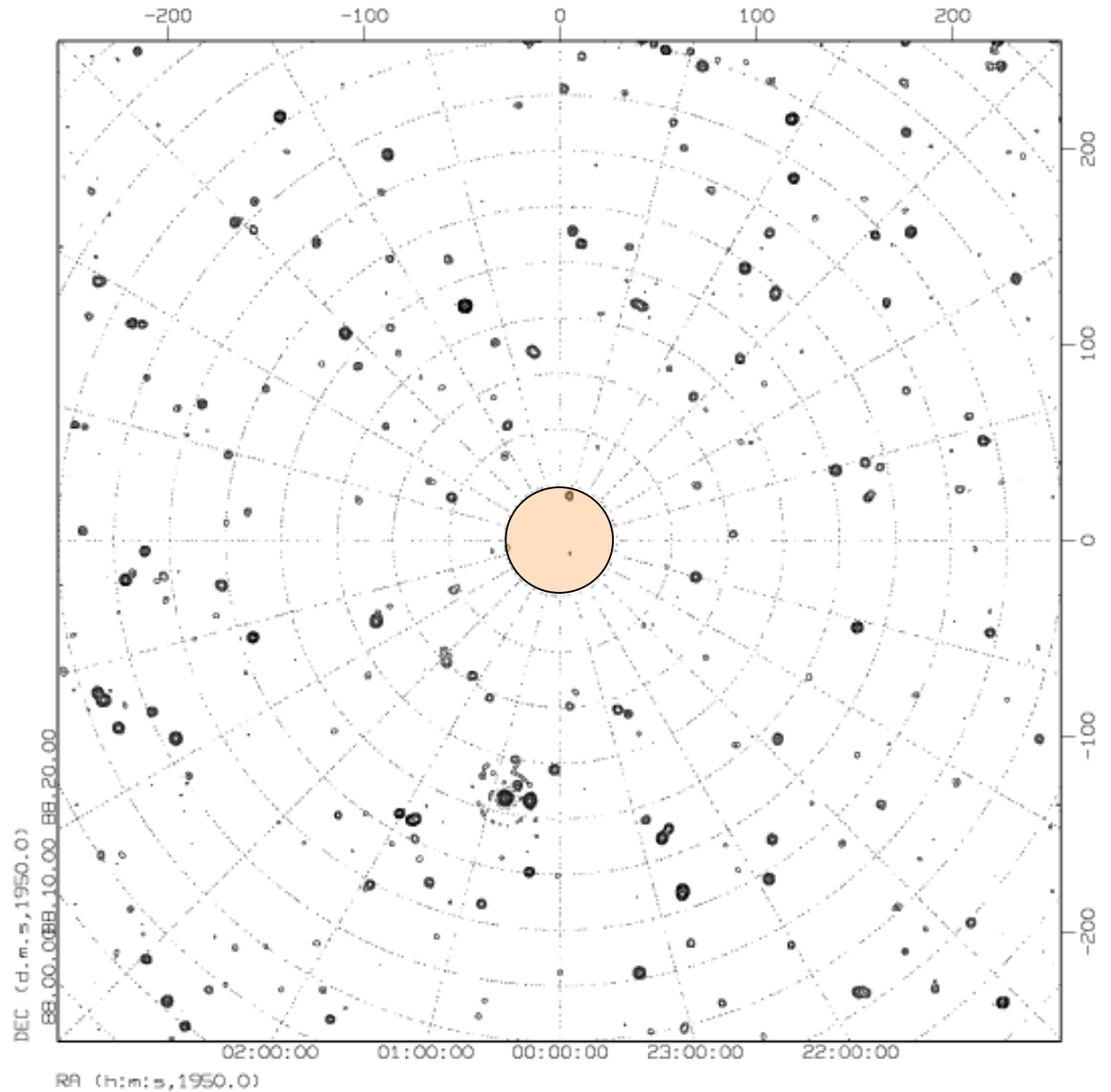
sp64\_4/ger/LOFAR/CS1/data/18feb07-L1463/L2007\_01463\_SB4-5.MS Spectral Window: 2 Polarization: 1 F



WENSS 350 MHz  
image of a  
4° diameter region  
around the North  
Celestial Pole

2 mJy noise

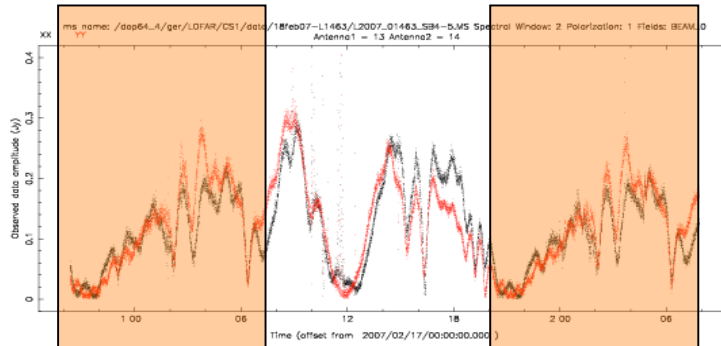
3C61.1 brightest  
source (5 Jy)



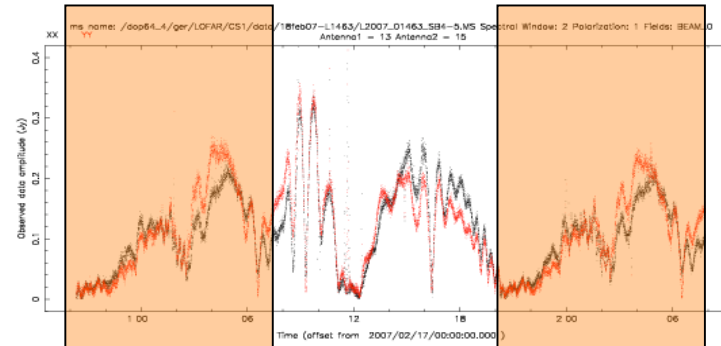
# 36h (17-19Feb07) observation on NCP ('noordpool')

L1463 CS-16 60 MHz

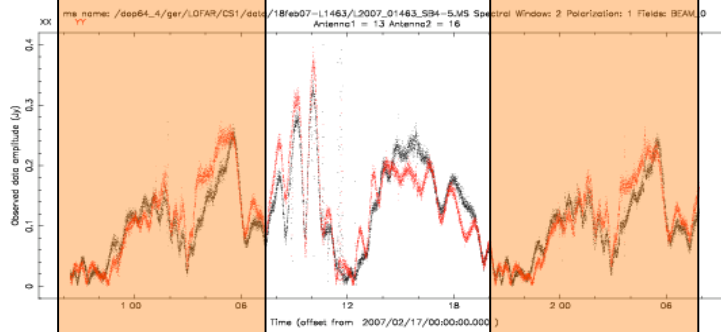
13-14



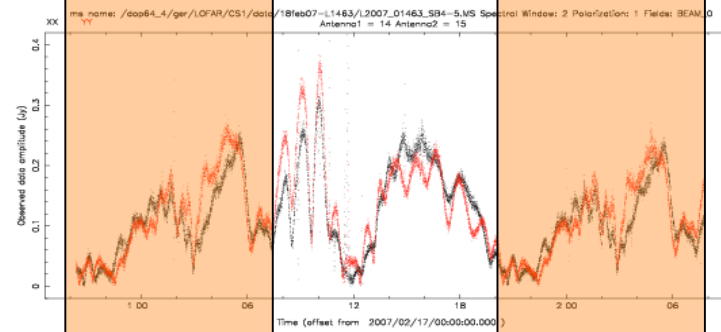
13-15



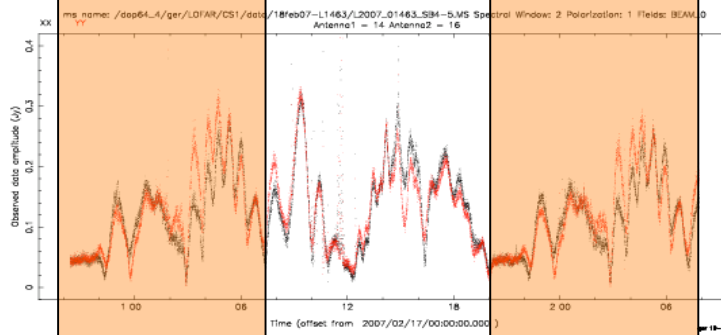
13-16



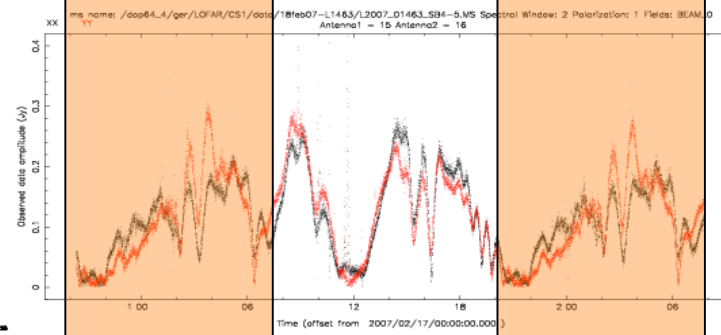
14-15



14-16



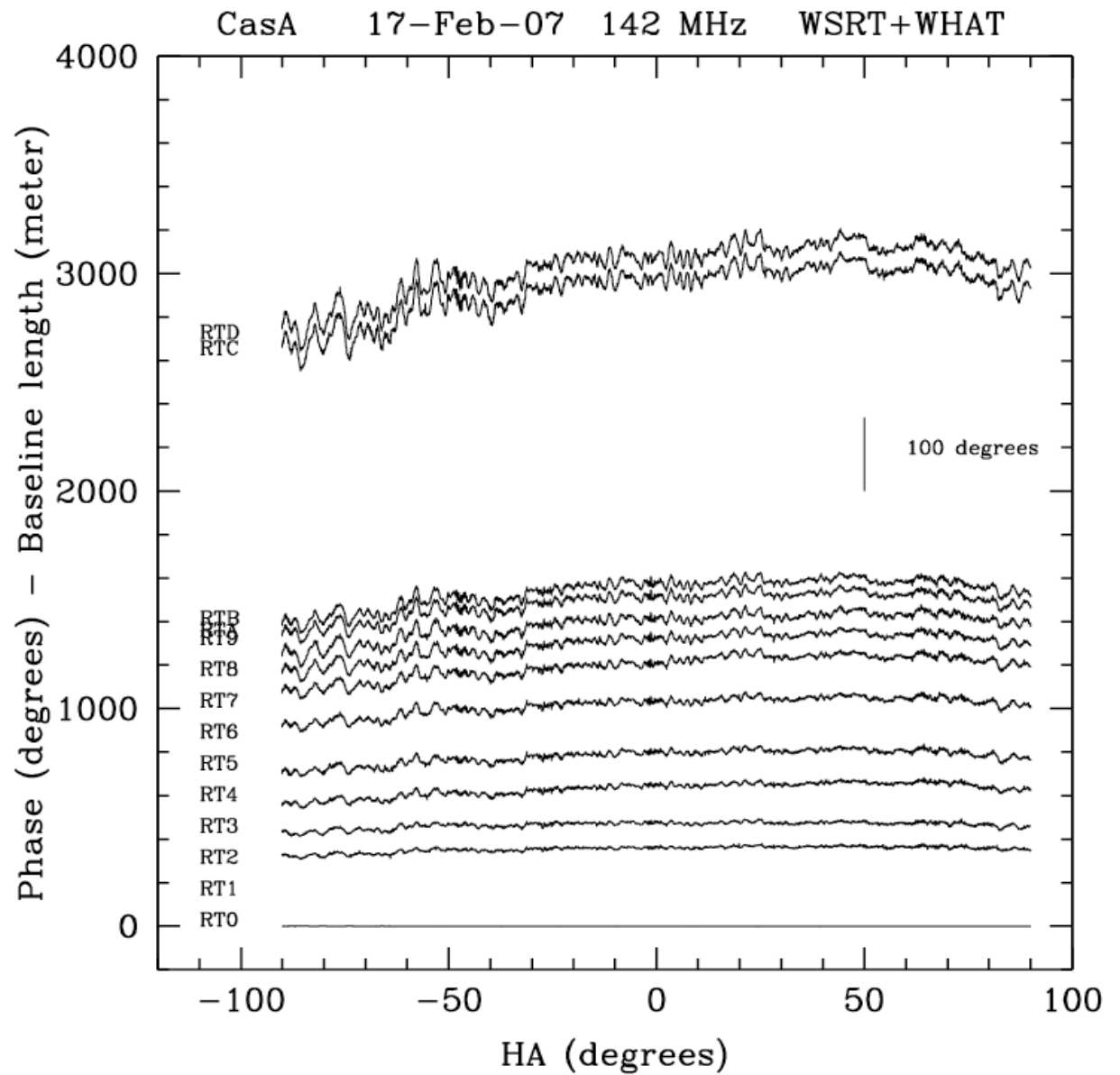
15-16



Ionospheric  
phaselope over  
WSRT  
last weekend

(L1462)

142 MHz - 2.7 km  
equals  
30 MHz - 570m



Coming up in the week from 21 - 28 Feb 2007 and beyond

- 1) Pulsar observations ?
- 2) (finally) Jupiter with CS10 fully beamformed !?
- 3) Polarization experiments on PSR1937 and Crab pulsar (in TauA)
- 4) RFI analysis in 20-80 MHz band ?
- 5) Very low frequency tests (<20 MHz) ?
- 6) More 200 MHz sampling tests ?
  
- 7) First HBA2 experiments on ??
- 8) 24 dipoles ?

NB: Next Wednesday (28 Feb) I will be in Leiden.