

# EVN Performance and Reliability

*Jay Blanchard*

**EVN TOG Meeting, St. Petersburg 2016**



**JIVE**

Joint Institute for VLBI  
ERIC

**EUROPEAN**



**NETWORK**

# 2015 Session 3 Oct NME Results

- **N15L3:**
  - UR no data due to antenna shaft angle encoder fault.
  - SR no data due to DBBC configuration problem.
  - IR used only two channels and only RCP (as expected).
- **N15M2:**
  - WB no data due to warm receiver.
  - IR RCP stronger than LCP.
- **N15X2:**
  - UR no fringes.
  - KM did not participate.
  - IR RCP stronger than LCP.
- **N15C3:**
  - UR IF5L sampler statistics are odd. No data in this IF.
  - IR RCP stronger than LCP.

# 2015 Session 3 Oct Feedback

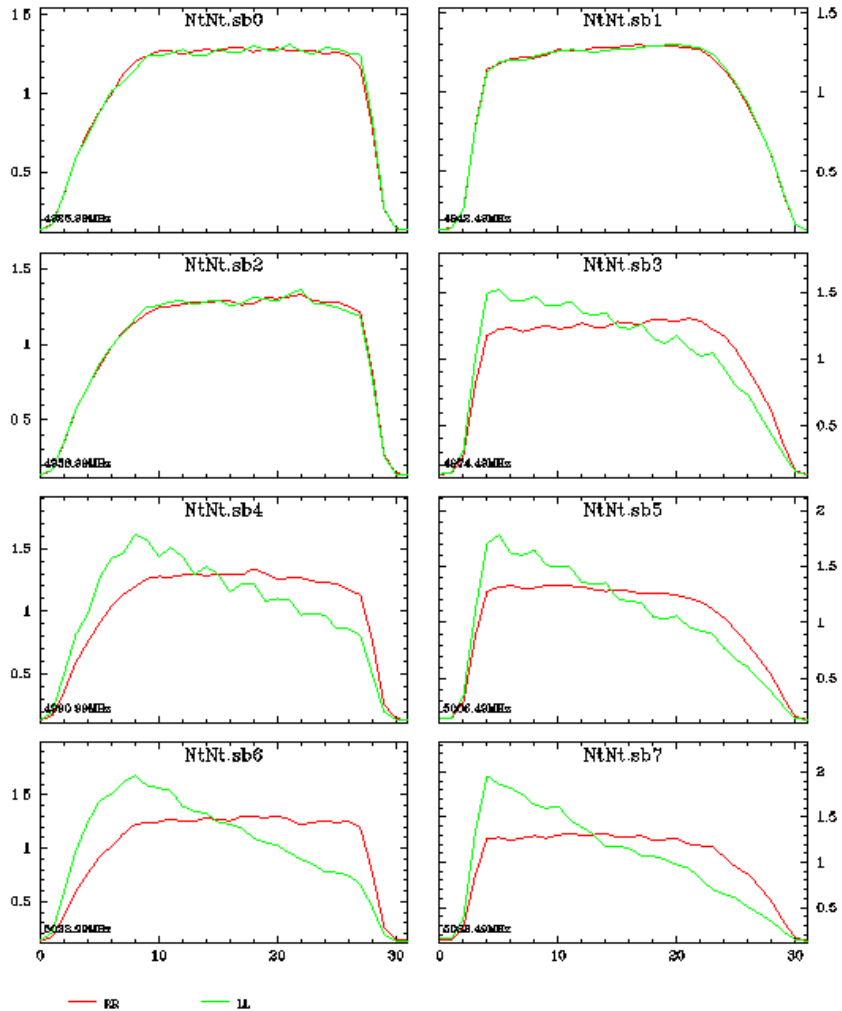
- 18/21 cm:
  - RO only sent LCP (as expected).
  - TR LCP half power of RCP (EH032A, EK036).
  - UR Bad data all session (bad sampler stats).
  - SR Bad data all session (DBBC config error?).
  - IR no data arrived.
  - T6 lower amp in LCP (EK036).
- 5 cm:
  - Wb warmed up, not in run.
  - Ir very low LCP power.
  - TR high cross pols.

# 2015 Session 3 Oct Feedback

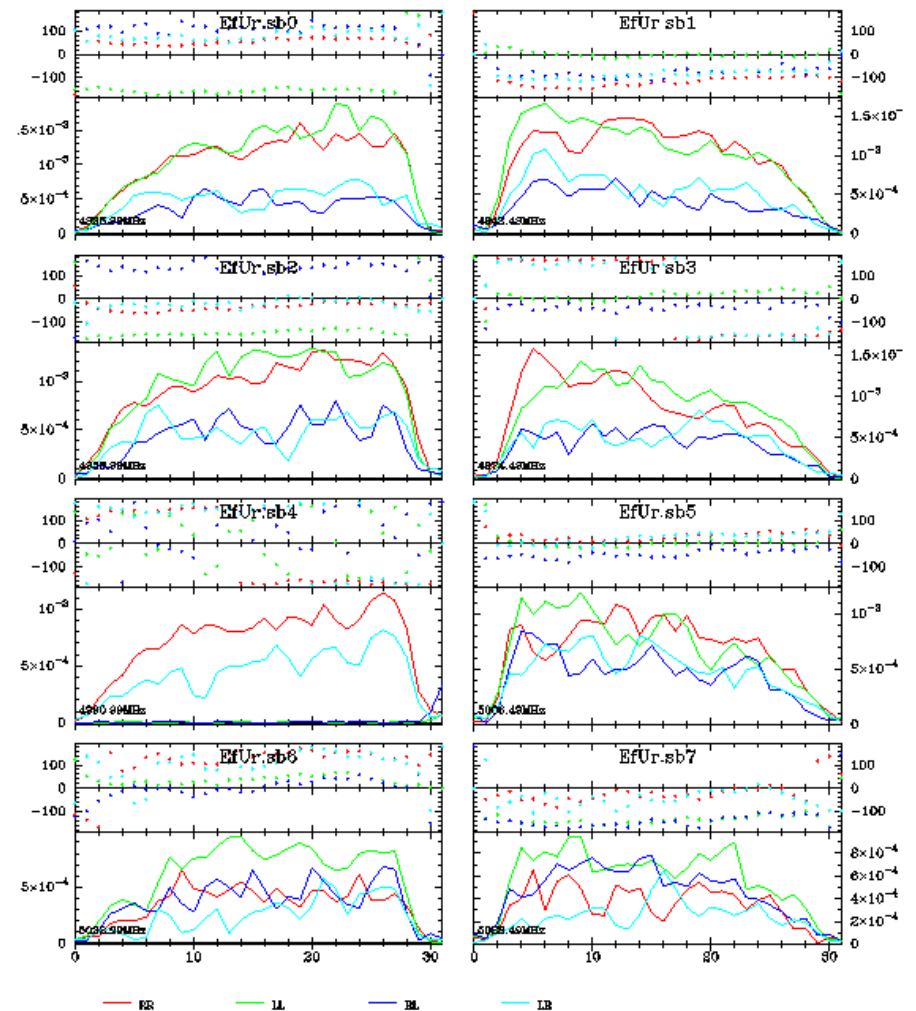
- 6 cm:
  - NT triangle shaped BP sub-band 3 and above LCP.
  - UR sub-band 4 LCP no power.
  - ZC high tsys in RCP.
  - SH no RCP.

# 2015 Session 3 Oct Feedback

Amplitude versus channel EWO17A jops@eee Thu-16-Jun-2016/19:18:  
Src=DA193 data: ew017a.ms  
Pol=RR LL RL LR; Nsub=8 page:5/10  
Scalar-averaged 27-Oct-2015/21:33:30->21:34:30; Weight=0.7



Amplitude/Phase versus channel EWO17A jops@eee Thu-16-Jun-2016/19:17:  
Src=3C286 data: ew017a.ms  
Pol=RR LL RL LR; Nsub=8 page:6/8  
Vector-averaged 28-Oct-2015/10:23:53->10:24:53; Weight=0.7



# 2016 Session 1 Feb NME Results

- **N16L1:**

- EF IF5R shows systematically low amplitude.
- SH did not participate due to maintenance.
- SV relatively high cross pol amplitude.

- **N16C1:**

- EF IF5R shows systematically low amplitude.
- JB polarisation leakage. Solved after NME.
- SH did not participate due to maintenance.
- ZC only RCP recorded.
- IR no log file (as expected?).

- **N16M1:**

- EF no LCP, IF5R shows systematically low amplitude.
- WB had swapped polarisations. Fixed during NME.
- Report still to do.

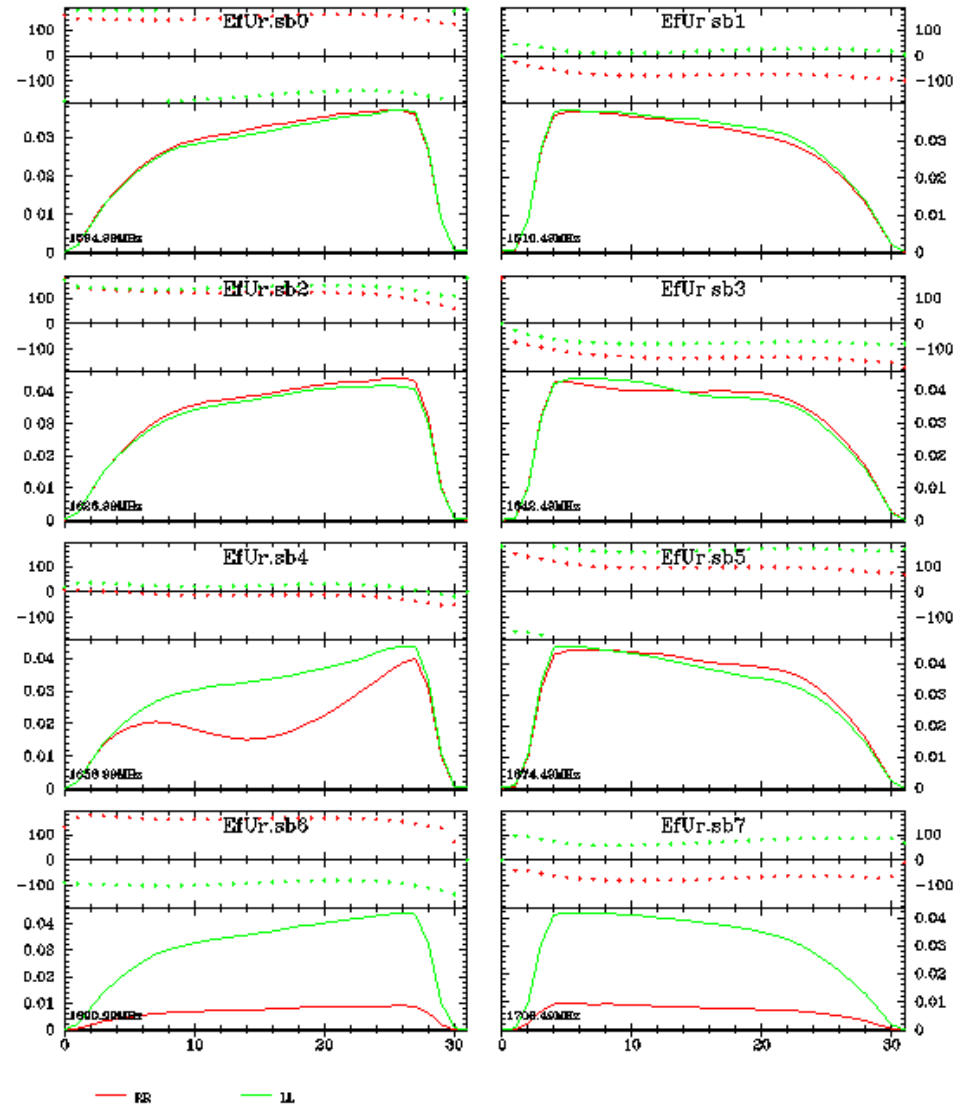
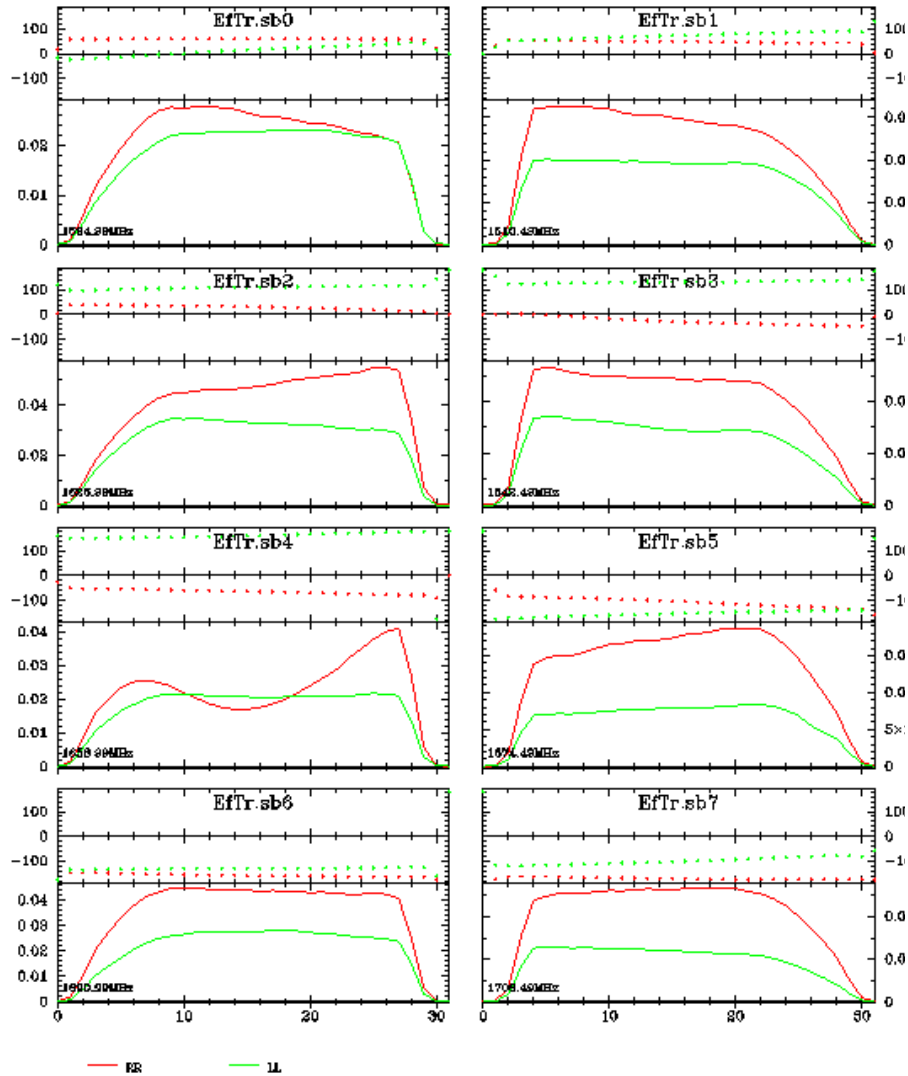
# 2015 Session 3 Oct Feedback

- 18/21 cm:
  - EF lost RCP channel. No power on IF due to a faulty relay.
  - T6 missed EJ016A due to receiver problem.
  - TR LCP half power of RCP.
  - SV Low power LCP.
  - UR low power RCP sub-band 6 and 7.
  - RO RCP only, as expected.
  - O8 Triangular bandpass in LCP.

# 2015 Session 3 Oct Feedback

Amplitude/Phase versus channel EJO16A jops@eee Wed-27-Jul-2016/16:1  
 Src=4C39.25 data: ej016a.r page:6/1  
 Pol=RR LL; Nsub=8  
 Vector-averaged 03-Mar-2016/18:32:10->18:33:10; Weight=0.7

Amplitude/Phase versus channel EJO16A jops@eee Wed-27-Jul-2016/16:14:  
 Src=4C39.25 data: ej016a.ms page:5/10  
 Pol=RR LL; Nsub=8  
 Vector-averaged 03-Mar-2016/18:32:10->18:33:10; Weight=0.7





# 2015 Session 3 Oct Feedback

- 6 cm:
  - EF no RCP. Sub-band 4 bandpass odd dip.
  - JB no LCP (GF019A).
  - O8 (much) more power in RCP than LCP.
  - UR low power sub-band 6 and 7.
  - TR suffers from phase jumps.
- 6 cm:
  - WB hybrid not converting to circulars properly.
  - TR phase jumps, RCP  $\frac{1}{2}$  power of LCP.
  - EF same dip in sub-band 4 bandpass.

# 2015 Session 3 Oct Feedback

