WESTERBORK VLBI STATION REPORT FOR THE TOG IN BONN, APRIL 10 2013

Westerbork participated in the M,C,X and L-band experiments of
EVN sessions 2012-3 and 2013-1. FTP fringe files were produced by the
system, and fringes were found on all occasions.
At Jive a problem was discovered in our digital backend (TADUMax)
during correlation. The symptom of this problem, is that only half of the
requested channels contain data. Fortunately this occurs only during
single sideband observations.
All double sideband observations, were ok.

For session 2012-3 we lost 12h 30 m out of 234.5 hours recording time

Problems that caused losses:
  - attenuater steering problem   : 5.5 hours
  - RT8 IVC problem   : 5.0 hours
  - serial link ADC DDU problem   : 0.5 hours
  - formatter sync error   : 1.5 hours
  - TaduMax Single sideband problem : 56 hours

For session 2013-1 we lost 1h 37m out of 230.5 hours recording time

Problems that caused losses:

  - Diskpack write problems   : 53 min
  - DZB time out   : 35 min
  - TaduMax status error   : 4 min
  - Wrong slew time estimate   : 5 min
  - TaduMax Single sideband problem : 0 hours (all projects were DSB)

e-VLBI:

In general Westerbork performed well.
e-VLBI was also used as part of session 2013-1.

WSRT Backend:

Our digital vlbi backend (TADUmax) has a problem since session 2012-3.
It was discovered by Jive. The problem occurs during SSB observations.
In that case only the first half of the channels contain a signal.
We did tests to find the nature of the problem, by sending ftp files to
JIVE. Every file was produced using a different TADUMax configuration.
This was done just after N13C1 and N13L1. Also Yb,Tr and On sent files.
It was found that the problem only occurs during SSB and not during DSB.
We concluded that we can make a workaround to avoid the problem:
For SSB only observations, we configure Tadumax for DSB, while the Mark5B
only records SSB.

Field System:

For both sessions we used FSL8 (Lenny)+ FS-9.10.4
We will upgrade to the newest version soon.

Mark5B:

For all sessions we used SDK8.2 + Firmware version 12.13
All sessions worked ok with this firmware.
For session 2012-3 both pata and sata diskpacks were used.
For session 2013-1 only pata diskpacks were used.
For eVLBI Wb participated in tests for new jive5ab software.

Current versions:

DIMINO   : Mark5B DIM : 2007y222d04h : 1 : mark5-XX : 1 : 1 : 2.7x
:0x1b : 0x5bdb
Linux   : Etch 2.6.18-6-686:(Debian 2.6.18.dfsg.1-26etch2)
Firmware : 12.13
Current eVLBI software : jive5ab 2.0.4

Other:

We developed scripts on the FS and the Mark5B to easy up
preparation and data transfer.

Diskpack purchase:

In 2012 we purchased hardware to assemble 4 packs of 8 TB.
They became available for session 2012-3.
The plan is to do the same for 2013

Geert Kuper. March 20 2013.