

## Effelsberg Station Report

### General Status

Effelsberg has participated in EVN session I+II 2016 and all the e-EVN sessions since the last report. Most of the observations were successful. In Session I there were problems with an occasional sensitivity loss in RCP of the 6.65 GHz receiver and an occasional complete loss of LCP at 1.66 GHz because of a faulty relay. A few other losses of observing time were due to bad weather, i.e. strong wind, thunderstorms and snow.

### Receivers

Developments for a new Q-band receiver are ongoing and the installation is planned for late 2016. At the same time a new Ku-Band system should be installed as well, which will cover a frequency range of 12 to 18 GHz. This are not an EVN frequencies, but the receiver will be used for HSA and VLBA+Effelsberg observations.

A new C/X receiver was installed recently in the secondary focus cabin which provides a continues band width between 4 GHz to 8 GHz or 5.3 GHz to 9.3 GHz, depending on the configuration. The receiver has linear polarization and will be primarily be used for spectroscopy and continuum observations. If it is also suitable for VLBI observations will depend on the future capabilities to convert the linear into circular polarization.

### New Hardware and Software

Effelsberg is now equipped with two Mark6 recorders. Both are currently set up to record in Flexbuff mode, but original Haystack Mark6 recording is possible as well. The Mark6s are the primary recorder for all DBBC observations, but Mark5B+ recording can be offered if necessary. A raid of 36 x 4 TB disks (144 TB) was bought and send to JIVE to provide the capacity to e-transfer the data from the EVN Sessions.

Effelsberg is using the latest software and firmware releases for the Field System, DBBC, Fila10G and Mark5/6 (FS-9.11.8, DBBC DDC V105\_1, V105E\_1 and PFB V16, Fila10G v3.2.2\_1, and jive5ab-2.7.1). Only the SDK firmware on the Mark5s was not updated and is still SDK-9.2.1. Updating the Mark5C depends on coordination with NRAO.