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To: UVLBI Group  
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Subject: Set-up at CARMA March 2013

The EHT session at CARMA in March 2013 is shown in Figure 1. Antennas 2, 3, 4, 5, 6, 8, 9, 14 were combined in the beamformer and the phases sums for the high (IF0) and low (IF1) bands for RCP and LCP were recorded in MK5B format on 4 recorders. A separate “comparison” dual channel recordings were made from antenna C1 with the 500 MHz wide bands in LCP RCP using a RDBE digitizer and polyphase filter board and 2 Mk5C recorders.

This was basically the same set-up as in 2012 with the addition of a second channel in the comparison antenna. Following the second session the refrigerator dewar in antenna C3 failed and C3 was replaced by antenna C13 in the phased sum.

Some local tests were made using VLBI0 software correlation to verify fringes between the comparison antenna and the “phased-up” sum of antennas from the beamformer. All indications on a strong source were that phasing was working well. Dave McMahon provided a new method for the deriving phase offsets using a script to extract phases using MIRIAD for an extended time period. Once these offsets were determined on a strong source the offsets remained constant and the changes of the first L.O. phase determined from the CARMA correlator did an excellent job of phasing. Typically the phasing efficiency was over 90% even on the weak sources.

**CARMA EHT2013  
Setup**

March 20-31, 2013

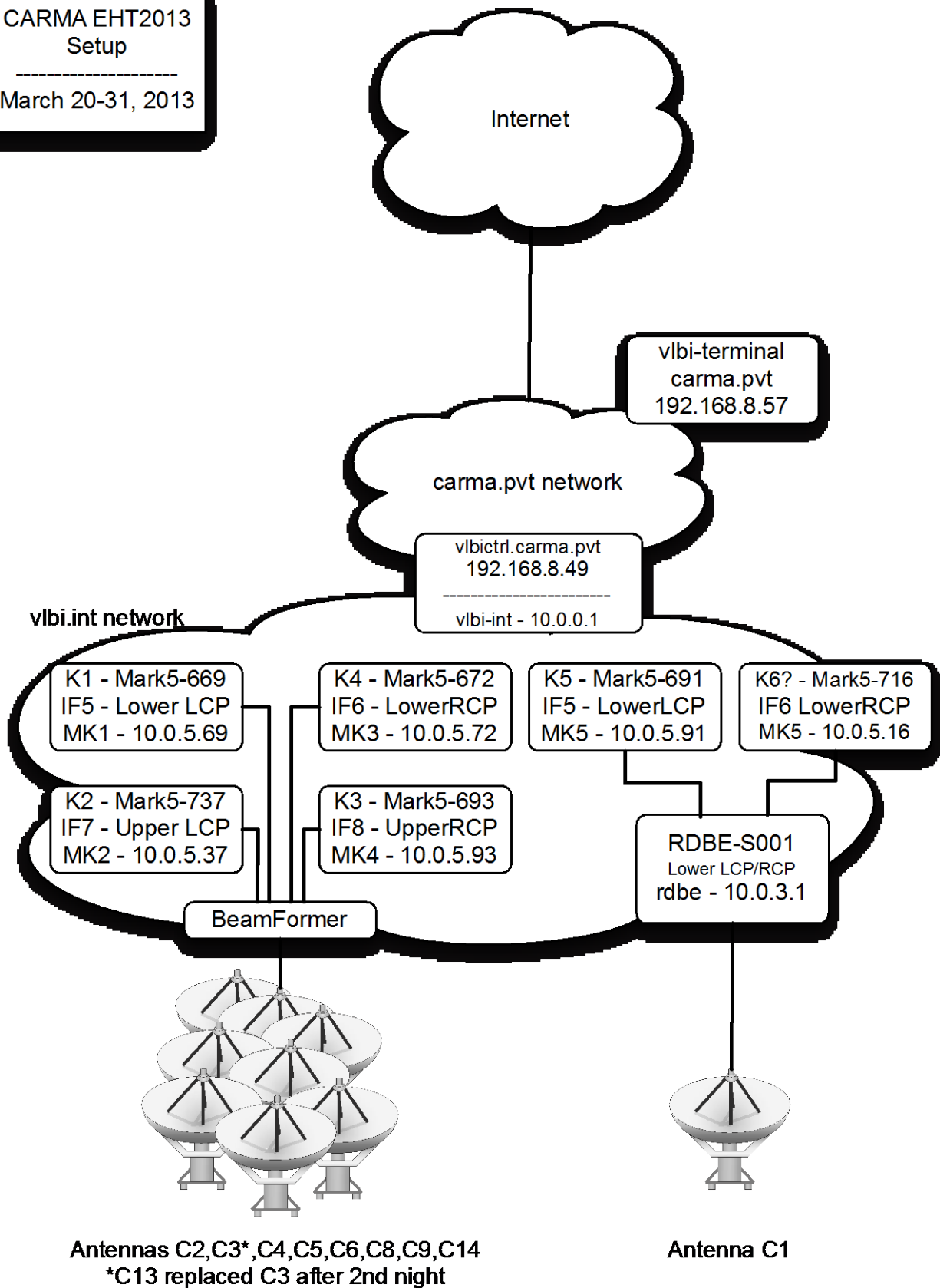


Figure 1. CARMA Setup diagram

