

IVS Newsletter

Issue 20, April 2008



CONT08: An August Continuous VLBI Campaign

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After a three-year intermission, there will be another continuous VLBI campaign organized this year (CONT08). Similar to the very successful CONT05 campaign, CONT08 will be observed in late summer. However, for scientific reasons the observing period is shifted by about a month so that the actual observations will be taken between August 12 @ 00:00:00 UT and August 26 @ 23:59:59 UT. The observation period should ensure a high signal level in the atmospheric excitation functions for high temporal resolution

for carrying out the campaign as planned. Several stations/institutions have purchased or will purchase new modules (Medicina, Ny-Ålesund, Onsala, Wettzell, and NASA) to augment the pool with the needed, about three quarters of the full campaign, capacity. If any of the major purchases falls through, it will become necessary to downscale the scope of CONT08, for instance, by reducing the recording rate. A possible fall-back plan is to observe two weeks back-to-back, where one week is observed at 512 Mbps and the other at 256 Mbps.

A further difference to the CONT05 campaign will be that all data will be correlated at one correlator: the Washington Correlator will process the entire CONT08 campaign. This will ease the logistical aspects regarding module handling for the correlators, stations, and shipping.

As was done in previous CONT campaigns, the participating stations will conduct extensive testing of their equipment under the direction of Brian Corey and Ed Himwich. The test results are to be examined by the stations themselves as well as by Brian and Ed. The tests will be done in order to ensure that the stations will be at their peak performance for CONT08.

Aligning the CONT08 observing scheme to the other space-geodetic techniques (GPS, SLR, DORIS) will improve the comparison and combination work. For that it is foreseen that for the duration of the CONT08 campaign these techniques will make sure that the best possible observations be taken; i.e., no unnecessary maintenance work or upgrades will be performed at the stations. Furthermore, all sites should be analyzed in the regular analysis of the particular service.

To foster inter-technique studies it is envisioned to prepare a special issue on CONT08 in the Journal of Geodesy. The call for contributions will probably go out about a year after the end of the CONT08 observing, that is in the September 2009 time frame. The detailed aspects of this special issue need still to be discussed.

Further information on the campaign will be posted to the CONT08 Web page <http://ivsc.gsfc.nasa.gov/program/cont08> as it becomes available.



The network of 11 stations that will participate in the CONT08 campaign to be observed from August 12 to August 26, 2008.

Earth rotation investigations. The signal vanishes (zero-crossing) in the season transition months of October and March; these months should therefore be avoided entirely.

Currently the logistical preparations for the CONT08 campaign are under way. The

CONT08 network will consist of eleven stations (see figure). In contrast to CONT05, it is planned to observe the 15 consecutive days on the basis of UT days, i.e., an observing day will run from 0 UT to 24 UT. In addition, the observing scheme will also be altered so that daily station checks (e.g., pointing) will not necessarily be done at the change of schedules but rather at a convenient, but still well-coordinated time for the stations (i.e., different daily check times for each station). In this way gaps with no observational data can be avoided. Previously, daily check gaps (of 30-min length) resulted in unrealistic peaks in the sub-daily EOP time series derived from the CONT05 campaign data.

The fifteen days of continuous observations will be observed at a recording rate of 512 Mbps. According to preliminary schedule simulations, this will result in a storage space requirement of about 260 TB for the entire campaign. With the geodetic media pool only being able to support the standard IVS observing program, new module purchases are necessary

