

Washington Correlator

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Abstract

This report summarizes the activities of the Washington Correlator for the year 2002. The Washington Correlator provides 136 hours of processing per week, primarily supporting Earth Orientation and Astrometric observations. In 2002, the major programs supported includes the IVS-R4, IVS-INT, IVS-R1 and CONT02. Two Mark 5 playbacks were added.

1. Introduction

The Washington Correlator (WACO) is located at and staffed by the U. S. Naval Observatory (USNO) in Washington, DC, USA. The correlator is sponsored and funded by the National Earth Orientation Service (NEOS) which is a joint effort of the USNO and NASA. Dedicated to processing geodetic and astrometric VLBI observations, the facility spent 100 percent of its time on these experiments. All of the weekly IVS-R4 sessions, all of the daily intensives, and one of the IVS-R1 sessions each month was processed at WACO. The remaining time was spent on reference frame and astrometry sessions. The facility houses a Mark 4 Correlator.

2. Correlator Operations

At the beginning of the year, the Washington Correlator Facility expanded its capabilities from 7 to 8 tape drives, allowing one-pass processing of 8-station experiments. In late 2002, 2 Mark 5P units were added to the playback systems. They can be switched into operation in place of tape drives. Starting in September, the Intensive experiments were recorded and processed with both disk and tape so that a comparison could be made. The CONT02 experiments included Mark 5 disk recordings from Westford instead of tape. All of these experiments were successful, and at the end of November, 2002, the Intensives were switched to disk-only.

The correlator facility operates 136 hours per week, and is fully loaded at this level.

During 2002 the following experiments were processed:

52	IVS-R4 experiments
6	CONT
4	CRF (Celestial Reference Frame)
12	IVS-R1
2	APSG (Asia Pacific)
206	Intensives

3. Staff

The Washington Correlator is under the management and scientific direction of the Earth Orientation Department of the U.S. Naval Observatory. USNO personnel continue to be responsible for overseeing the scheduling and processing. During the period covered by this report, a private contractor, NVI, Inc., supplied a contract manager and correlator operators.

Staff

Dr. Kerry Kingham (USNO)

Duties

VLBI Correlator Project Scientist, responsible for the scientific integrity of correlated data, hardware and software maintenance and upgrades, and computer system administration. Also responsible for process scheduling and evaluation of correlated data. Oversees session setups and prepasses and evaluates station performance.

Bruce Thornton (NVI)

Operations Manager, responsible for correlator operator scheduling, daily operations, and tape shipping. Intensive processing and review.

Harvis Macon (NVI)

Lead Correlator operator, NEOS-A and Intensive setups.

Roxanne Watkins (NVI)

Tape Librarian

Keven Reynolds (NVI)

Correlator Operator

Dwayne Sneed (NVI)

Correlator Operator

Joseph Granderson (NVI)

Correlator Operator

Kenneth Potts

Correlator Operator

Steven Springer (NVI)

Part-time Correlator Operator

Lawrence Dorsey (NVI)

Part-time Correlator Operator

Valerie Bockarie (NVI)

Part-time Correlator Operator

4. Outlook

The Washington Correlator expects to add more Mark 5 playback units to the correlator in the next year. The increased use of Mark 5 should increase the efficiency and quality of the processing.