Network Coordinator Report

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Abstract

The Network Coordinator (NC) is responsible for assuring high quality data are produced by the Network Stations (NS). This report identifies the Network Coordinator and discusses some of the history of efforts to assure high quality data and some of the new initiatives that will be put into place. The NC also acts as liaison to the observational astronomical VLBI community and as an advocate for the IVS NS with the IVS organization.

1. Network Coordinator

The initial IVS Network Coordinator (NC) is Ed Himwich. He has over 17 years experience in many aspects of geodetic VLBI including: operations, control software development, experiment and logistical coordination, data analysis software development, data analysis, management, and scientific research.

Himwich works at NASA Goddard Space Flight Center. At this location he is able to work closely with the Core Operations Center, GSFC Analysis Center, GSFC Technology Development Center, and the IVS Coordinating Center. Being located at GSFC also provides access to a variety of work stations, personal computers, and peripherals. In addition, an absolutely mandatory high speed connection to the Internet is available.

2. Status of Network Coordination

There was no such position as Network Coordinator prior to March 1, 1999. However, several people, Ed Himwich among them, were carrying on many of the functions on an informal basis. They monitored the status of the experiments, correlation, and data analysis for problems. They contacted station personnel to help them resolve problems or refer them to the individuals who could help them. They visited stations to provide training, install upgrades, suggest improvements, as well as carry feedback back to the technology development centers. They worked closely with the European VLBI Network on Field System software and operations development. When necessary they would act as an advocate for stations when requirements were being developed that seemed unreasonable or problems were not getting the resources needed for their resolution.

3. Outlook

This year will be the first one of activity for the Network Coordinator (NC) as such. It is expected that most of the work existing will continue. However, now it will be a formally recognized activity. In addition there will be new initiatives that are carried out under the IVS banner.

The new initiatives will include development of performance standards, monitoring operations, Web plots, and station visits. In order to help each station achieve high quality in their data, we plan to develop performance standards for hardware, software, and operations. These will provide

a set of specifications that the stations can use to verify that their performance is nominal. If the performance is not nominal, the standards will provide a goal for improving performance.

The "ivs-ops" mail list, correlator reports, and analyst reports will be monitored for signs of problems. The NC will contact the network stations (NS) to help resolve these problems. The NC will attempt to help resolve the problem or will try to make sure the NS get in contact with people who can. This is not really a new initiative, but now is included as part of the responsibilities of the NC.

There will a Web based plotting system for display of ancillary data from the logs. In addition to providing an easily accessible historical archive, this should make it easier to isolate and identify problems.

The need for people from technology development centers to visit stations is clear. Not only does this provide an opportunity for additional training and hardware and software "tune-ups", but it provides an opportunity for more direct feedback to the technology development centers about problems that have been encountered. Unfortunately because of time and money constraints it is difficult to have all the stations visited as often as we would wish, at least once every three years. These visits are a resource to all the stations, not just the ones visited. In order to get as much advantage as possible from these visits, a Web page will be developed that will chronicle the visits. This should make it easier for other stations to benefit from new developments and insights that come out of the visits.

Coordination of station operations between geodesy and astronomy is especially important at stations that make both types of observations. A great deal of progress in this area has been made by standardizing the control software used and harmonizing the use of schedules. This work will continue. Several improvements are coming in the FS that will further unify operations and benefit both communities. In particular mode independent parity check procedures and automated Tsys measurements will benefit all users. The EVN continues to be one of the largest users of the FS. We expect the geodetic community's collaboration with them on FS development to continue.

The role of NC as an advocate for the NS is not intended to displace existing channels of communication. NS will still deal with the same people (including the NC) for schedule, operations, and maintenance issues. However, if a NS has a problem that is not being resolved or wishes to raise an issue at a higher level, the NC is an appropriate first contact for additional assistance. The NC is the one person within the IVS specifically charged with looking out for the stations' interests as a whole.

Another initiative that will be started is that each station will be asked to designate one person to be the "Friend of Geodesy". This is intended to be in the style of the EVN's "Friend of VLBI" for astronomy. The duties of this person will be explained more fully in the call for these designations, but basically this person would act as the primary contact at the station for issues dealing with geodetic VLBI.