Report of the IVS Analysis Coordinator

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Abstract

On October 1, 1999, the author took over the tasks of the IVS Analysis Coordinator. On the basis of the preparations made by the Acting Analysis Coordinators a number of topics were addressed in the first five months. Regular submissions of the Analysis Centers are being received and have to be monitored. First comparisons are available and can be checked by the users on a special Analysis Coordinator web site. The first IVS Analysis Workshop took place at Kötting, Germany, on February 24, 2000.

1. Introduction

In the absence of a formal proposal for an Analysis Coordinator at the inauguration of the IVS on March 1, 1999 the function of the Coordinator was provisionally carried out by a team of Acting Analysis Coordinators. T. Marshall Eubanks (US Naval Observatory), Chopo Ma (NASA Goddard Space Flight Center) and Nancy R. Vandenbergh (NVI/GSFC) established the first procedures for the service functions of the IVS (EUBANKS et al. 1999).

At the second IVS Directing Board Meeting in conjunction with the Birmingham IUGG General Assembly in July 1999 a proposal of the Geodetic Institute of the University of Bonn to commit personnel and resources to the function of the IVS Analysis Coordinator was accepted. From October 1, 1999 the author has taken over the responsibilities of the IVS Analysis Coordinator.

The Acting Coordinators had already prepared the basic structure of IVS data analysis and data storage with great success. In addition, a number of activities were brought on the way which facilitated the start of the current Analysis Coordinator very much. We greatly appreciate all their efforts and achievements.

2. IVS Data Analysis and Data Storage Components

As set forth in the IVS Terms of Reference “the IVS Analysis Coordinator is responsible for coordinating the analysis activities of the IVS and for stimulating VLBI product development and delivery”. In the framework of the IVS, the Data Centers play a central role since all data and products are kept up to date at the Data Centers. In terms of data flow all interaction between Operation Centers, Analysis Centers and the group of users is maintained by the Data Centers. Three data centers have taken up the responsibilities of primary data centers:

• Bundesamt für Kartographie und Geodäsie, Leipzig, Germany

• Observatoire de Paris, Paris, France

• NASA Goddard Space Flight Center, Greenbelt MD, USA
The Operation Centers submit their data to the nearest Data Center which in turn mirrors their contents at six hour intervals. The Analysis Centers then retrieve the data from their Data Center of choice and submit their products after the analysis. Three more IVS Data Centers concentrate on the data storage of regional VLBI campaigns.

To date 19 analysis centers have proposed to IVS to take over analysis functions within the IVS framework. In a response to a comprehensive analysis solicitation carried out by the Acting Analysis Coordinators eight centers envisaged to regularly produce and submit to IVS one or more VLBI products.

So far four of the IVS Analysis Centers regularly submit EOP results to the IVS data centers. These products are compared routinely and the comparison results are accessible via Internet in numerical and graphical form (Analysis Coordinator’s page on IVS home page). Although the methods of comparison are still fairly rudimentary their results provide some valuable insight already. One aspect which has to be taken care of in particular is the handling of sessions which were observed simultaneously. Since these sessions produce EOP results which are biased (MACMILLAN AND MA, this volume) special care has to be taken that only results of the same sessions are compared.

The transition to the Mark IV Correlator has inevitably led to some loss in productivity. However, as more components of the correlator software become available, the overall capacity will increase considerably. Nevertheless, the data and product flow has to be monitored in order to guarantee smooth operation and a timely delivery of the results.

3. Plans

During the first IVS Analysis Workshop at Kötzing on February 24, 2000, a number of organisational and scientific topics were discussed (NOTHNAEG, this volume). Five IVS Analysis Working Groups were established which will work on specific topics and will report on their initial activities by June 30, 2000.

The Analysis Centers are encouraged to streamline their operations so that the data flow and product delivery for all sessions can be optimized. Special emphasis will be given to an optimized distribution of tasks especially within the Associate Analysis Centers.

The refinement of the comparisons will consequently lead to a solid basis for combinations. For the time being these activities will be pursued primarily at the Analysis Coordinator’s office. However, other IVS Analysis Centers are very welcome to join these combination activities. Additional combination centers would help to provide another level of quality control and redundancy.

4. References