

## 3.3 Analysis Coordinator

### **IERS Combination Pilot Project**

The motivation for initiating the IERS Combination Pilot Project was the situation that the various IERS products, i.e., International Terrestrial Reference Frame (ITRF), International Celestial Reference Frame (ICRF), Earth Orientation Parameters (EOP), were still combined independently. And even more, in most cases neither intra-technique combinations nor inter-technique combinations were performed using the full variance-covariance information. Therefore, the consistency of the different IERS products cannot be guaranteed, and the different strengths of the space techniques are not fully exploited to improve the products. From this background, the IERS Combination Pilot Project (CPP) was initiated and should be a major step towards more consistent IERS products that are generated on a routine basis.

The Call for Participation was sent out in February 2004. Several groups answered the call and proposed to participate in one or more of the major steps. The CPP is a three-step project with an additional fourth part. The main topics of the four steps / parts are the following:

1. Generate a combined weekly intra-technique solution for each space geodetic technique
2. Generate weekly inter-technique combinations based on solutions out of step 1
3. Validate the different combinations
4. Generate special products

More details can be found in chapter 3.7.2 of this volume, IERS Combination Working Group.

### **IERS Long Time Series**

In December 2004 the call for IERS Long Time Series was sent out as it was recognized that the availability of long time series is essential for a weekly rigorous combination of space geodetic solutions. During the IERS Combination Pilot Project it came out that the weekly combined solutions cannot be generated consistently over longer time spans as long as there are no time series available as a reference.

Due to this project, homogeneous time series from all space geodetic techniques are available now:

<http://iers1.bkg.bund.de/info/listFileITRF2004.php>

More details can be found in chapter 3.7.2 of this volume, IERS Combination Working Group.

### **Future Products**

The first new type of IERS products will be ITRF2004 that will include station coordinates, station velocities as well as daily Earth rotation parameters (pole coordinates and UT1–UTC) in one solution for the first time.

Besides this long time solution, the Combination Pilot Project delivers weekly single-technique solutions as well as combined inter-technique solutions.

Plans concerning the inclusion of additional parameters into the solutions mentioned above or the generation of other types of IERS products are explained in chapter 3.7.2 of this volume (IERS Combination Working Group).

#### **Meetings and Workshops**

- IERS Working Group on Combination and CPP Meeting during 1<sup>st</sup> EGU General Assembly, Nice / France, April 2004
- IERS Workshop on Combination, Nappa Valley / California, December 2004
- Meetings with a session dedicated to combination of space geodetic techniques:
  - EGU General Assembly, Nice / France, April 2004
  - COSPAR 2004, Paris / France, July 2004
  - AGU Fall Meeting, San Francisco / California, December 2004

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