Federal Agency for Cartography and Geodesy

IVS Combination Center

IVS Combination Center at BKG: Options and functions of the revised website

The IVS Combination Center at the Federal Agency for Cartography and Geodesy is the central location for consolidating analyzed VLBI data, which is combined in a rapid and a quarterly operational mode. Additional products (e.g. input for and validation of ITRF combinations) are generated upon special request.

For the publication of the combined results and for the presentation of the official IVS products the IVS Combination Center maintains a website, which was recently revised because of a system conversion. New functions and more combination details were added to the already available information on station coordinates, Earth Orientation Parameters (EOP), baselines and the combination results.

The revised website is accessible via the following links:

www.ccivs.bkg.bund.de / ccivs.bkg.bund.de

System structure

The website was developed on the basis of the content management system „GovernmentSiteBuilder“ by Materna, which is a realization for government departments, public authorities and other national institutions in Germany. The system should standardize the government web presence and provides methods and options, that extend the functional range and the user scope. The predefined system also improves the administrative handling and facilitates the process of regular updates.

The layout and the thematic subjects are clearly arranged. Quick links and service functions are highlighted in separate menus to get quickly to the important topics and desired information.

New Functions

- ### ITRF2014 contribution

The IVS Combination Center contribution to the ITRF2014 can be found at the menu subject „ITRF2014“. The station coordinates of the VLBI stations in X,Y,Z and N,E,H, as well as the Earth Orientation Parameters and baseline information are published and shown using an interactive Plottool. Additionally, the user can download binary files containing the resulting time series according to the user-specific settings for the Plottool. These can be further used in external plot programs.

Figure 1 shows the temporal evolution of the x-coordinate residuals of the VLBI station Wettzell as one example. Figure 2 displays the variation in baseline length between Wettzell (Germany) and Fortaleza (Brazil). The LOD estimates resulting from the IVS combination are shown in Figure 3.

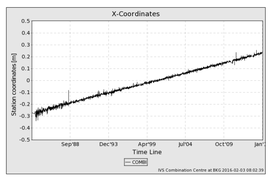

Figure 1: X-coordinate residuals of station Wettzell from IVS combination for ITRF2014

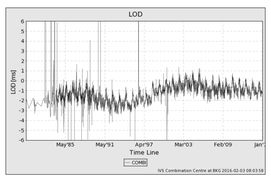

Figure 3: Session-wise LOD estimates from IVS combination for ITRF2014

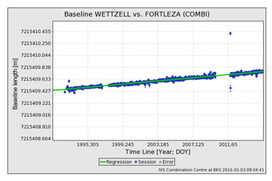

Figure 2: Baseline length Wettzell – Fortaleza from IVS combination for ITRF2014

- ### Combination protocol

Additional features are the new combination protocols, which are available along with the combination SINEX files in the archive (FAQs > Archive).

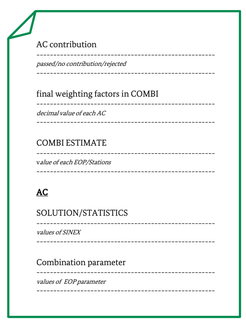

Figure 4: Content of the combination protocol

The archive is the central site where all protocols about the combination are going to be published. In future each protocol will be sent via email to the participating ACs of the relevant combination.

The combination protocol contains the contributing ACs with their weighting factors, SINEX solution/statistic block and their offset, rate and standard deviation parameters of the EOPs w.r.t. the combination. It also contains the estimated parameters of the IVS combined solution, i.e., EOP and station coordinates, as well as the statistical information of the IVS combined solution.

- ### News

The news page informs about the latest combined session and refers to the relevant SINEX file and combination protocol (email report). Furthermore, current activities and plans will be described in future.

- ### Search and Contact

An integrated search function and a simplified contact form for all users are provided. In addition, a sitemap as a navigation summary and a glossary will fully increase our services.

If there are any questions, comments or help, please do not hesitate to contact us. For that, please complete the contact formular with all important information and send it to us.

A new email address has been established:

ccivs@bkg.bund.de

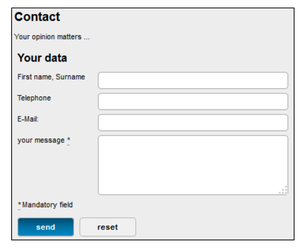

Figure 5: Contact form of the IVSCC website

- ### Event overview

Present events and meetings from the current year are summarized under the topic FAQs > Meetings. Presentations, articles, and posters presented by members of the IVS Combination Center are available in the category FAQs > Publication and Posters. Beside, links to the latest annual reports are provided. All contributions of the Combination Center will be collected and are retrievable at any time.

- ### Interactive Observatory Map

The interactive Observatory Map is one more feature to inform you about the VLBI stations. The map can be found under the menu subject FAQs > Tools. Information about the supporting organization, location and the date of installation can be looked up, providing that an up-to-date version of Google Earth is installed on your system. With the Google Earth standard zooming function it is possible to localize the exact position of the VLBI stations.

Figure 6 shows the observatory Wettzell in Bad Koetzting (Germany) as one example.

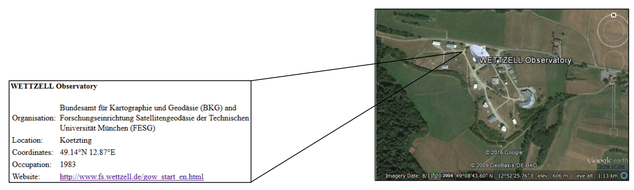

Figure 6: Mapview Observatory Wettzell

View of the website

The following view shows the structure of the revised CCIVS website.

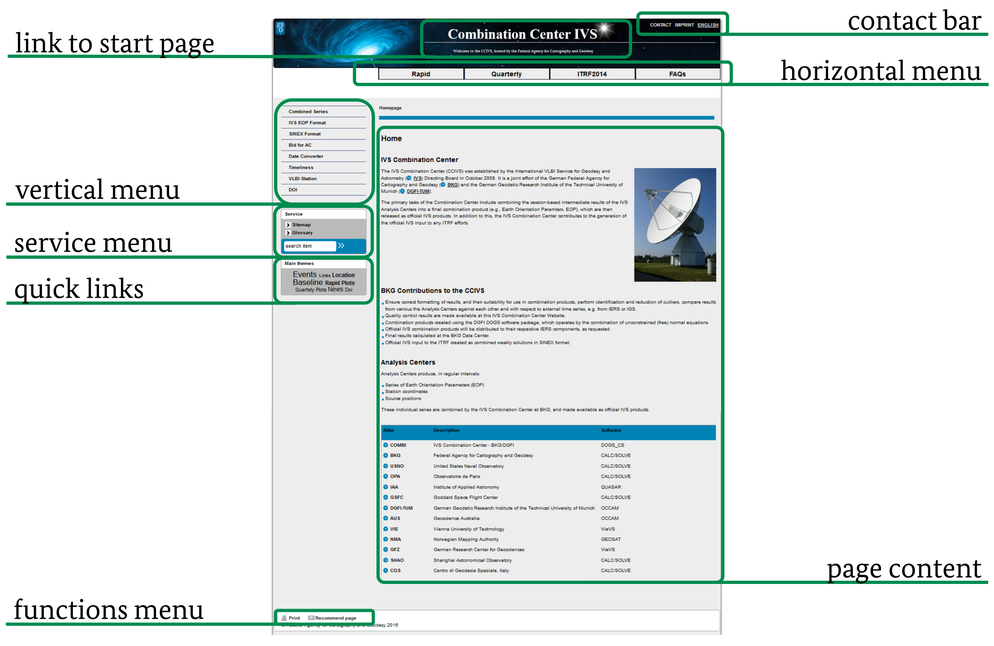

Figure 7: Start page of the CCIVS Website

Further information:

Contact: ccivs@bkg.bund.de
IVS Combination Center website: http://www.ccivs.bkg.bund.de/