

# **The Contribution of the Regional Reference Frames to the Global Geodetic Reference Frame Implementation**

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**Key words:** GNSS/GPS; Reference frames; Reference systems;

## **SUMMARY**

The International Terrestrial Reference Frame (ITRF) is being used worldwide more and more as the global geodetic reference frame with respect to which the national and continental reference frames are established and maintained. On the other hand, the national and continental geodetic infrastructures, in particular GNSS Continuously Operating Reference Station (CORS) networks, contribute for the overall improvement of the ITRF realizations. The International Association of Geodesy (IAG) structure contains the Sub-Commission 1.3: Regional Reference Frames, composed by six regional Sub-commissions that operate mostly at continental level, responsible for the definitions and realizations of regional reference frames and their connection to the ITRF. Moreover, it is the home of two Working Groups addressing theoretical and technical key common issues of interest to regional organisations: Integration of Dense Velocity Fields into the ITRF and Deformation Models for Reference Frames. A summary of the activities developed within the Sub-commission Regional Reference Frames is presented, encouraging the countries within each regional sub-commission to re-define and modernize their national geodetic systems compatible with the ITRF, as well as examples on the solutions adopted for the transition from traditional reference systems (geodetic datums) to ITRS and its ITRF realizations and their impact within the user's community.