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IDS contribution to the first update of the ITRF2020

Guilhem Moreaux¹, Frank Lemoine², Hugues Capdeville¹, Petr Štěpánek³, Michiel Otten⁴, Samuel Nahmani⁵, Arnaud Pollet⁵, and Patrick Schreiner⁶

¹Collecte Localisation Satellites, Localisation & Orbitographie, Ramonville Saint-Agne, France (gmoreaux@groupcls.com)

²NASA, Goddard Space Flight Center, Greenbelt, USA

³Research Institute of Geodesy, Topography and Cartography, Zdiby, Czech Republic

⁴ESA, European Space Operations Centre, Darmstadt, Germany

⁵IGN-IPGP, Paris, France

⁶GFZ, Weßling, Germany

In anticipation of the first update of the 2020 realization of the International Terrestrial Reference Frame (ITRF2020), the International DORIS Service (IDS) Combination Center is participating in the estimation of DORIS stations positions/velocities as well as Earth Orientation Parameters (EOPs), using DORIS data. These computations are based on the latest weekly multi-satellite series from all four IDS Analysis Centers and two IDS Associated Analysis Centers, from January 2021 to December 2023.

The primary objectives of this study are to analyze the DORIS contribution to this first update of the ITRF2020 in terms of: (1) geocenter and scale solutions, (2) station positions and week-to-week repeatability, and (3) Earth Orientation Parameters (EOPs).

Comparisons with the IDS 19 series time extension (contributing to ITRF2020) will highlight the benefits of the new models, including the latest DORIS missions (e.g. HY-2C, HY-2D, Sentinel-6A MF), and the addition of two new IDS contributors. Additionally, this study will assess the impact of new strategies designed to mitigate perturbations caused by the South Atlantic Anomaly (SAA) on certain DORIS missions.