USNO Circular 179 — Errata & Updates

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1 Errata

Page 64, section 6.5.3, first paragraph, first sentence: "page 56" should be "page 57."

Page 64, section 6.5.3, first paragraph, last sentence: "page 55" should be "pages 55–56."

2 Updates

Page 83, the reference Hilton et al. (2006) is now

Hilton, J. L., Capitaine, N., Chapront, J., Ferrandiz, J. M., Fienga, A., Fukushima, T., Getino, J., Mathews, P., Simon, J.-L., Soffel, M., Vondrak, J., Wallace, P., & Williams, J. 2006, Celest. Mech. Dyn. Astr., 94, 351 ... 40, 43

Page 87, add

[18] Text of IAU resolutions of 2006: http://www.iau.org/Resolutions_at_GA-XXVI.340.0.html

General Addendum 1:

At the IAU XXVIth General Assembly, Prague, August 2006, three resolutions were adopted that are relevant to the contents of the circular:

Resolution 1 recommends use of the precession theory P03 (Capitaine et al. 2003); that the terms lunisolar precession and planetary precession be replaced by precession of the equator and precession of the ecliptic, respectively; and that the ecliptic pole should be defined by the mean orbital angular momentum vector of the Earth-Moon barycenter in an inertial reference frame. Details are given in the report of the IAU Division I

Working Group on Precession and the Ecliptic (Hilton et al. 2006).

Resolution 2 adopts the names "Celestial Intermediate Origin" (CIO) and "Terrestrial Intermediate Origin" (TIO) in place of "Celestial Ephemeris Origin" (CEO) and "Terrestrial Ephemeris Origin" (TEO), respectively; and recommends that the following sentence be added to the definition of the BCRS: "For all practical applications, unless otherwise stated, the BCRS is assumed to be oriented according to the ICRS axes. The orientation of the GCRS is derived from the ICRS-oriented BCRS."

Resolution 3 clarifies the definition of the time scale TDB to make it a specific linear transformation of TCB. The resolution makes TDB for practical purposes the same as $T_{\rm eph}$, the independent time argument of the JPL ephemeris DE405.

All three resolutions were anticipated when the circular was written and have already been incorporated into the information provided. The text of the resolutions is given at URL 18.

General Addendum 2:

With respect to section 2.5, the IAU Working Group on the Redefinition of Universal Time Coordinated (UTC) completed its work and gave a final report at the IAU XXVIth General Assembly, Prague, August 2006. The report made no specific recommendation, and the IAU took no action with respect to UTC or leap seconds. The IAU working group no longer exists.