DIVISIONS I-III / WORKING GROUP CARTOGRAPHIC COORDINATES & ROTATIONAL ELEMENTS

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TRIENNIAL REPORT 2006 - 2009

The IAU/IAG Working Group on *Cartographic Coordinates & Rotational Elements* published its (2006) triennial report containing current recommendations for models for solar system bodies (Seidelmann *et al.* 2007). P. Kenneth Seidelmann stepped down as chairperson and B. A. Archinal was elected chairperson at the Working Group business meeting that took place at the IAU XXVI General Assembly in Prague in 2006.

Important changes for the 2006 report includes corrections or updates to the recommended models for the rotation of the Sun, orientation of the Moon, orientation and size and shape of several Saturnian satellites, and orientation of Pluto and Charon. The recommended models for the size and orientation of several asteroids and comets were updated or given for the first time.

The Working Group is currently reformulating its membership and is starting to address changes needed for the next report. These will likely include changes for Mercury, due to recent Earth-based radar (Margot *et al.* 2007) and *MESSENGER* mission results, a new model for the Moon's orientation, a possible update to the Mars orientation model, and further updates for Saturnian Satellites due to recent *Cassini* mission results. An unusual orientation model will need to be developed for Titan where *Cassini*-RADAR observations have revealed a new pole position and periodic orientation changes apparently due to a sub-surface ocean (Stiles *et al.* 2008; Lorenz *et al.* 2008). A draft of the next report will be presented for discussion and completion at the IAU XXVII General Assembly in Rio de Janeiro, Brazil, in 2009.

> Brent A. Archinal chair of the Working Group

References

Margot, J. L., Peale, S. J., Jurgens, R. F., Slade, M. A., & Holin, I. V. 2007, Science, 316, 710
Lorenz, R. D., Stiles, B. W., Kirk, R. L., Allison, M. D., et al. 2008, Science, 318, 1649
Seidelmann, P. K., Archinal, B. A., A'Hearn, M. F., et al. 2007, Cel. M&DA, 98, 155
Stiles, B. W., Kirk, R. L., et al., and the Cassini-RADAR Team 2008, AJ, 135, 1669