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# WORKING GROUP ON CARTOGRAPHIC COORDINATES AND ROTATIONAL ELEMENTS

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This minute is to provide a summary of our discussion at the IAU General Assembly. As usual, the triennium report of the WG will soon appear in Celestial Mechanics and Dynamical Astronomy.

At the IAU General Assembly, the following items were discussed and tentative conclusions were reached. However, no conclusions can be final without the consent of the majority of the members of the Working Group.

1. Since the work of the WG has been expanded to include asteroids and comets, it was decided to drop the words "planets and satellites" from the name of the working group. Thus, the name becomes IAU/IAG Working Group on Cartographic Coordinates and Rotational Elements.

2. The opinion was to recommend a positive negative pole and right hand system for asteroids and comets.

3. It was felt that we should broaden the community of those considering this issue by sending a notice to the DPS on the proposed system for asteroids and comets.

4. No one knew whether the IAG recommends and uses an Earth longitude system of 0-360 degrees instead of the +/- 0-180 degrees.

5. It was felt that we should recommend a standard topography for Mars consistent with what will be used for the missions to Mars.

6. For digital representation of surfaces Cartesian, right hand, center of mass coordinates should be standard. It should be recognized that the center of mass may be unknown and offsets may be involved.

7. It should be stated that the origins are at the center of mass to the extent known.

8. It was felt we should not recommend planetographic latitudes for regularly shaped asteroids.

9. We should recommend that authors state the basis for values given.

10. We should drop mean radius for asteroids and give the "effective radius", which is the radius that results in the correct volume for the body.

11. Data given should be as raw as possible to avoid irreversible processing.

12. It was suggested that we should establish standards for planetary ring systems. We need to find out if the Cassini mission has adopted some system.

13. By our standard system for asteroids, we are recommending that the Nomenclature systemchange the locations for features on some asteroids. The chairman of the Nomenclature Committee felt this was the best thing to do, and it should be done before there were more named features.

14. We need to make clear the time scales which are being used. Our values are for TT, not TCB. There is a 2 millisecond difference between TT and $T_eph$. Our tables are correct also for TDB. For the Mars mission, they should use a relativistic proper time for Mars.

An issue not resolved is what to do about the many newly discovered satellites for which little is known except their orbits and magnitudes. Should we add them to the tables, but with no information? Should we ignore them for the time being until something is known to include?

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*Chairperson of the Working Group*

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