

## COMMISSION 20

## POSITIONS AND MOTIONS OF MINOR PLANETS, COMETS AND SATELLITES

*POSITIONS ET MOUVEMENTS  
DES PETITES PLANÈTES,  
DES COMÈTES ET DES SATELLITES*

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### 1. Naming of solar system bodies

Commission 20 has been involved in the discussion on discovery credit rules of solar system objects (mainly concerned with asteroids) in particular with the role played by dynamicists in recovering objects by linking their orbits with previous apparitions. A working group was set up to discuss the issue that was integrated by professional astronomers as well as amateurs. There was some exchange of opinions and conflicting views, but the trend of the majority was to keep the discovery credit for the discoverer whose observations led to the object's principal designation, as expressed in the MPC existing rules (see [cfa-www.harvard.edu/iau/info/HowNamed.html](http://cfa-www.harvard.edu/iau/info/HowNamed.html)), considering only exceptionally credit for dynamicists when linkage of different apparitions led to the recovery of a lost object. The precise definition of non-trivial linkage should be worked out, and for the time being, the idea is to keep the existing MPC rules and, if necessary, to improve them, rather than starting a new set of rules.

### 2. Support for scientific meetings

Commission 20 has given its support to several proposals of meetings. The list includes: *Mathematics and Astronomy – A Long Journey* (proposed to be held in Madrid, Spain, November 2009); *The Role of Astronomy in Society and Culture* (IAU Symposium No. 260, Paris, France, January 2009), and *Icy Bodies in the Solar System* (IAU Symposium No 263, Rio de Janeiro, Brazil, during the IAU XXVII General Assembly in August 2009). As regards the latter meeting, it was considered for us very important to have a meeting devoted to planetary sciences in the next General Assembly, in order to

make it more attractive from a scientific standpoint for the community of planetary scientists. In particular, icy bodies offer clues for our understanding of how the solar system formed and evolved, and also as potential abodes of life, so this was considered to be a very appropriate and timely subject, given the new developments related to space-based missions as well as large-scale sky surveys from the Earth.

### **3. Commission 15 and Commission 20**

A pending problem before the next IAU GA is the possible merging of Commission 15 and Commission 20 into a single commission. On the one hand, there are some advantages in the discussion of topics related to minor bodies of the solar system with a unified view covering physical as well as dynamical aspects. One example is non-gravitational forces affecting the motion of comets, or the Yarkovsky and YORP effects on asteroids. On the other hand, dynamicists and physicists form two communities with their own specific interests, so the question of merging requires further discussion.

Julio A. Fernández  
*president of the Commission*