

## COMMISSION 22

## METERS, METEORITES AND INTERPLANETARY DUST

*MÉTÉORES, MÉTÉORITES ET  
POUSSIÈRE INTERPLANÉTAIRE*

**PRESIDENT**  
**VICE-PRESIDENT**  
**PAST PRESIDENT**  
**ORGANIZING COMMITTEE**

**Junichi Watanabe**  
**Peter Jenniskens**  
**Pavel Spurný**  
**Jiří Borovička,**  
**Margaret Campbell-Brown,**  
**Guy Consolmagno,**  
**Tadeusz Jopek,**  
**Jeremie Vaubaillon,**  
**Iwan P. Williams,**  
**Jin Zhu (Secretary)**

## PROCEEDINGS BUSINESS MEETING on 7 August 2009

### 1. Introduction

The business meeting of commission 22 was held at the room 5 in the SulAmerica Convention Center in Rio de Janeiro(14:00-15:30). Fifteen people attended at this meeting: J. Borovička, E. Bowell, G. Consolmagno, D. Green, P. Jenniskens, A. Pellinen-Wannberg, R. Rudawska, J. Watanabe, J. Zhu, P. H. A. Hasselmann, F. Ostrovski, D. A. Oszkiewicz, W. Thuillot, P. Mahajani, and A. Sule. This meeting was managed by Junichi Watanabe, the current C22 Vice-President. The summary of the meeting is described.

### 2. Membership

The membership of Commission 22 increased from 112 members at the end of the XXVI General Assembly in Prague (2006) to 132 members at the end of the current XXVII General Assembly.

There are 22 new members: Daniel Apai (Hungary, currently in United States), Pieter Dieleman (the Netherlands), Rene D. Duffard (Argentina, currently in Spain), Štefan Gajdoš (Slovakia), Matthieu Gounelle (France), Maria Hajduková, Jr. (Slovakia), Hiroko Nagahara (Japan), Marian Jakubík (Slovakia), Amanda I. Karakas (Australia), Maxim Y. Khovritchev (Russia), Svitlana V. Kolomiyets (Ukraine), Pavlo M. Kozak (Ukraine), Maria A. Lugaro (Italy, currently in Australia), Jesus Martinez-Frias (Spain), Romolo Politi (Italy), Shinsuke Abe (Japan, currently in Taiwan), Sho Sasaki (Japan), Toshihiro Kasuga (Japan), Federico Tosi (Italy), Juraj Tóth (Slovakia), Xiaoxiang Zhang (China), and Haibin Zhao (China).

Two members deceased since the last General Assembly: Eleanor Francis Helin (USA) and Koichiro Tomita (Japan). The meeting stood in silence in remembrance of the deceased C22 members.

### 3. New executive

The new executive of the Commission 22 for the next triennium has already been approved by Division III: President: Jun-ichi Watanabe (Japan), Vice-President: Peter Jenniskens (USA), Past President: Pavel Spurný (Czech Republic). The members of the organizing committee

are Jiří Borovička (Czech Republic), Margaret Campbell-Brown (Canada), Guy Consolmagno (Vatican), Tadeusz Jopek (Poland), Jeremie Vaubaillon (France), and Iwan P. Williams (UK).

Following the suggestion of G. Consolmagno, Jin Zhu (China) was elected unanimously as the new secretary of Commission 22.

#### 4. Activities since the last General Assembly

At the C22 business meeting held in Prague in 2006, several tasks were discussed:

##### 4.1. *Stabilize C22 membership – attract new meteor scientists to the C22*

With 22 new members this task can be considered as successfully done. Nevertheless, A. Pellinen-Wannberg noted that many people investigating meteors with high power radars are not astronomers and do not know how to apply for IAU membership. Organizing committee of Commission 22 should give them an advice.

##### 4.2. *Update list of C22 members including current email addresses*

The list of all C22 members is available at the web page of the Commission. The e-mail addresses of all members have not been collected. However, E. Bowell noted that it is important to have e-mail addresses, since e-mail is the only mean which can be used for communication with members. IAU Secretariat can be asked to provide e-mail addresses.

##### 4.3. *Prepare and keep updated web pages of the Commission including its Task and Interest Groups*

The web pages of C22 were prepared by the former secretary J. Borovička at the address <http://meteor.asu.cas.cz/IAU/>. E. Bowell noted that commission web pages can be at any address. It is possible to include them into the official IAU web page, but this seems to be not very practical. From practical reasons (easy update), it would be preferable to move the C22 web pages to China under the supervision of the new secretary J. Zhu.

##### 4.4. *Prepare merging of Commission 22 with Commission 21 in 2009*

The majority of members of C21 refused merging with C22 since they are not working in planetary sciences at all. E. Bowell informed about the solution of this matter as approved by the IAU Executive Committee. Commission 21 in the present form (Light of the night sky) will be dissolved. New Commission 21 will be formed with the name Galactic and Extragalactic Background Radiation and will be part of Division IX (Optical and Infrared Techniques). However, about 10% of current C21 members in fact work in Solar System astronomy (e.g. zodiacal light). They can easily become members of C22. The Organizing Committee of C22 should actively propose them the C22 membership.

#### 5. Commission report

The five page report of Commission 22 was submitted by the president, P. Spurný in 2008, following the request of IAU Secretariat. The report was prepared in a shorter form, concentrating on Commission activities and not compiling all scientific results in the field. The report will be published in the triennial IAU Transactions XXVIIA, Reports on Astronomy 2006-2009. The reports of two C22 bodies, the Working Group on Professional-Amateur Cooperation in Meteors and the Task Group on Meteor Showers Nomenclature, have been included as well.

#### 6. The list of established meteor showers

P. Jenniskens, on behalf of the Task Group on Meteor Shower Nomenclature, gave a brief history of the task assigned to the Task Group at the IAU General Assembly in Prague and its activities so far to get there. The Task Group was to come up with a list of established meteor showers that deserved to be officially named by the IAU at this Assembly. A two-step process was established, where all showers discussed in new literature are first added to the Working List of Meteor Showers, each being assigned a unique name, number, and three letter

code. Tadeusz Jopek at Poznan University maintains this list on the Meteor Data Center website (<http://www.astro.amu.edu.pl/%7Ejopek/MDC2007/index.php>). A set of meteor shower nomenclature rules was established and published in the IAU Bulletin. At the May Bolides Meeting in Prague, the Task Group settled on a list of 64 showers, known to be real from either past meteor outbursts or from detection in two recent meteor orbit surveys. Commission 22 was asked to approve officially the meteor shower names on this List of Established Showers.

After the queries of E. Bowell and D. Green, it was discussed what happens if an error is later discovered in the published list. P. Jenniskens confirmed that errors on occasion do creep into the IAU Working List of Meteor Showers, at the first stage of the process, and are later corrected. Green noted that such corrections should be reported on the CBETs (Central Bureau for Astronomical Telegrams) that announce when new showers have been added. Jenniskens pointed out that it is not difficult to make such corrections, even for the list of established showers, because the names are tied to numbers and codes. In case a future correction on an officially recognized name is needed, corrections need also be reported in a CBET, a procedure analogous to naming minor planets. Future additions to the list of established showers can be published at any time but they will become official only after the next General Assembly.

J. Borovička complained that the proposed list was not circulated among C22 members or at least the Organizing Committee. P. Jenniskens answered that the list had been posted on the website of IAU Meteor Data Center since May this year, where it could be accessed by all C22 members. He also noted that the C22 president is part of the Task Group and no direction was received to take further action. G. Consolmagno supported the authority of the Task Group to choose the list of established showers presented here for a vote in Commission 22.

Finally, the proposed list of 64 established meteor showers was approved by the commission, without changes (6 votes in favor, 1 abstention).

After consulting in Division III, E. Bowell later confirmed that no further action would be required within the IAU for the proposed names to be officially accepted. Green suggested that the list of established names be published in a CBET (Central Bureau for Astronomical Telegrams).

## 7. Working Groups

The present members of Commission 22 agreed unanimously that the Working Group on Professional-Amateur Cooperation in Meteors be continued in the next triennium. The chair will remain Galina Ryabova. E. Bowell noted that according to IAU Executive Committee, working group chairs should normally serve for one triennium and maximally for two triennia. There is no conflict since G. Ryabova just finished her first triennium.

The present members of Commission 22 further agreed unanimously that the Task Group on Meteor Shower Nomenclature be transformed into the Working Group on Meteor Shower Nomenclature for the next triennium. This proposal was approved by the commission (7 votes in favor). The working group will maintain the archive of meteor shower nomenclature, consider proposed shower names from new surveys, and identify what next set of showers to name officially in next IAU General Assembly. The chair will remain Peter Jenniskens, the vice-chair will be T. Jopek. Other members will be J. Watanabe (C22 president), V. Porubčan, J. Rendtel, S. Abe, and J. Baggaley. One member will be supplemented later instead of R. Hawkes, who offered to pass on the torch. A. Pellinen-Wannberg noted that it would be desirable to have at least one female member.

## 8. Future conferences

J. Watanabe informed about the future conferences of interest to C22 members:

- 2008 TC3 Workshop in University of Khartoum, Sudan, on December 5-6, 2009.
- METEORIDS 2010 conference in Breckenridge, Colorado, USA, on May 24-28, 2010.
- Annual Meeting of the Meteoritical Society in New York City on July 26-30, 2010.
- Asteroids, Comets, Meteors conference (ACM 2011) in Niigata City, Japan, on July 18-22, 2011.

Junichi Watanabe  
*President of the Commission*