

CHAPTER V

REPORT OF THE EXECUTIVE COMMITTEE

1. Executive Committee 2006 - 2009

1.1. *Composition of the Executive Committee*

During the triennium 2006 - 2009, the Executive Committee was composed as follows:

Catherine J.	Cesarsky	President
Robert	Williams	President-Elect
Karel A.	van der Hucht	General Secretary
Ian F.	Corbett	Assistant General Secretary
Beatriz	Barbuy	Vice-President
Chen	Fang	Vice-President
Martha P.	Haynes	Vice-President
George K.	Miley	Vice-President
Giancarlo	Setti	Vice-President
Brian	Warner	Vice-President
Ronald D.	Ekers	Adviser
Oddbjørn	Engvold	Adviser

1.2. *Executive Committee meetings*

The IAU Executive Committee had the following meetings during the triennium:

- EC 82, 25 August 2006, at the IAU XXVI General Assembly, Prague, Czech Republic;
- EC 83, 15 - 17 May 2007, at Cape Observatory, Cape Town, South Africa;
- EC 84, 28 - 30 May 2008, at the Norwegian Academy of Science and Letters, Oslo, Norway;
- EC 85, 7 - 8 April 2009, at the Institute d'Astrophysique de Paris, France;
- EC 86, 2, 6, and 12 August 2009, during the IAU XXVII General Assembly in Rio de Janeiro, Brazil.

The business conducted by the Executive Committee is recorded in the minutes of the EC meetings. Brief reports of the minutes of the EC meetings have been published in the IAU *Information Bulletin*: EC 82 in IB 99, p. 22; EC 83 in IB 100, p. 24; EC 84 in IB 102, p. 43; and EC 85 in IB 104, p. 18.

1.3. *Officers' Meetings*

Between the meetings of the Executive Committee, the IAU Officers (President, President-Elect, General Secretary and Assistant General Secretary) convened at the IAU Secretariat in Paris, France, for their annual Officers' Meetings: OM-2007 on 30 January - 1 February 2007, OM-2008 on 29 - 31 January 2008, OM-2009-1 on 12 January 2009, and OM-2009-2 on 6 April 2009.

The business conducted by the Officers is recorded in the minutes of the Officers' meetings. Brief reports of the minutes of the Officers' Meetings have been published

in the IAU *Information Bulletin*: OM-2007 in IB 100, p. 23; OM-2008 in IB 102, p. 43; OM-2009-1 in IB 103, p. 80; and OM-2009-2 in IB 104, p. 18.

1.4. Executive Committee Working Groups

1.4.1. EC Working Group on the International Year of Astronomy 2009

At its General Assembly in Sydney in July 2003, the International Astronomical Union voted unanimously in favor of a resolution asking that the year 2009 be declared the *Year of Astronomy* by the United Nations, in recognition of the significance of Galileo's introduction of the astronomical telescope in 1609. The proclamation was subsequently prepared by the EC Working Group 'International Year of Astronomy 2009' (EC-WG-IYA2009), and forwarded to the Executive Board of UNESCO.

The UNESCO General Conference, in October 2005, recommended that the United Nations General Assembly would adopt a resolution declaring 2009 as the *International Year of Astronomy*. In its recommendations to the UN General Assembly, the General Conference of UNESCO recognizes "that the study of the Universe has led to numerous scientific discoveries that have great influence not only on humankind's understanding of the Universe but also on the technological, social and economic development of society" and "that astronomy proves to have great implications in the study of science, philosophy, religion and culture".

The United Nations General Assembly adopted a Resolution on 19 December 2007 declaring the year 2009 the *International Year of Astronomy* (UN-A/RES/62/200). The full UN Resolution is presented in Appendix I.

The *International Year of Astronomy* had its UNESCO-IAU Opening Ceremony on 15 and 16 January 2009 at UNESCO Headquarters in Paris, France.

The EC-WG-IYA 2009, chaired by Catherine J. Cesarsky, started its work during the IAU XXVI General Assembly in Prague in August 2006, and created a dedicated IYA 2009 secretariat hosted by ESO (Garching, Germany) and staffed by Lars Lindberg Christensen (WG secretary), Pedro Russo, Mariana Barrosa, and Lars Holm Nielsen.

As of July 2009, 141 national contacts and numerous organizational contacts have signed up to participate in national and international IYA2009 activities.

Progress reports on the activities of the EC-WG-IYA-2009 have been published in the IAU *Information Bulletin*: IB 100, p. 72, IB 101, p. 51, IB 102, p. 57, IB 103, p. 88, and IB 104, p. 20.

IAU Press Release IAU0913, dated 1 July 2009 summarizes the mid-year accomplishments as follows:

International Year of Astronomy 2009 raises millions of eyes to the skies.

1 July 2009, Paris: As the *International Year of Astronomy 2009* (IYA2009) reaches its six-month milestone, already over a million people have looked at the sky through a telescope for the first time, and even more have newly engaged in astronomy. This is only the tip of iceberg, though, as countless ongoing projects and planned initiatives indicate that IYA2009 is well on the way toward achieving many of its goals.

UNESCO and the International Astronomical Union (IAU) launched 2009 as the *International Year of Astronomy* (IYA2009) under the theme *The Universe, Yours to Discover*. IYA2009 is a global celebration of astronomy and its contributions to society and culture, with events at national, regional and global levels throughout the whole of 2009. Now halfway through 2009, a lot has been achieved and even more can be expected in the future.

Headlining the IYA2009 effort is the *Galileoscope* project. With the aim of providing low-cost telescopes that offer views far better than those obtained by Galileo Galilei some 400 years ago, the venture has picked up significant pace since IYA2009 began. By the

end of July, the first 60 000 Galileoscopes will have shipped, and additional of 100 000 are currently in production. More than 4000 Galileoscopes have been generously donated by IYA2009 and individuals to organisations and schools in developing countries. This gesture aptly demonstrates astronomy enthusiasts' commitment to the IYA2009 goal of making the skies accessible to all.

But perhaps the most impressive figures for IYA2009 come from the *national* activities that have brought together hundreds of thousands of people in many countries for astronomy-themed events. For example, more than 400 000 people gathered for the Sunrise Event on New Year's Day in Busan City, South Korea. In Brazil, the 2009 Brazilian Olympiad of Astronomy and Astronautics saw more than 750 000 students participate from 32 500 schools. In Paraguay, the launch of IYA2009 featured a concert with more than 1600 musicians and over 15 000 attendees. In Norway, every single student in the country from grade levels 5-11 will soon receive a free astronomy kit, including a Galileoscope and an educational guide. For the first time in postal service history, and in just six months, more than 70 postal agencies around the world have issued over 140 new stamps inspired by astronomy.

The many other signature events of IYA2009 have further enabled astronomy enthusiasts to share their excitement. In April, the highly anticipated *100 Hours of Astronomy* extravaganza kicked off. This planet-wide celebration involved over 100 countries holding thousands of events, with more than two million people taking part in observing events. Widely regarded as an outstanding success, 100 Hours of Astronomy brought people from all seven continents together with the help of a live 24-hour webcast called "Around the World in 80 Telescopes". This groundbreaking broadcast was watched by over 150 000 individuals.

Astronomical images have the power to inspire people to think about our place in the Universe, a fact used by *From Earth To The Universe* (FETTU), a project to run exhibitions in unusual locations around the world, like train stations and shopping malls. So far, over 60 countries around the world have signed up to host FETTU exhibitions in more than 200 separate locations.

Dark Skies Awareness is an ongoing initiative to combat light pollution and raise awareness of the importance of deep darkness for appreciating and studying the cosmos. As part of this effort, the GLOBE at night project encourages members of the public to become citizen scientists by performing star-counts and reporting their findings. The 2009 campaign, held this March, garnered 15 700 measurements, nearly 80% more than the previous record in 2007.

The *Cosmic Diary* cornerstone project continues to flourish. Professional scientists are blogging about their lives and work, giving the public insight into what it is really like to be a researcher. Since its launch on 1 January 2009, the Cosmic Diary has recruited 60 professional astronomers from 28 countries. There have been over 1000 blog posts, attracting more than 97 000 visitors.

Further impressive web statistics are provided by the *Portal To The Universe* (PTTU), a global, one-stop clearing house for on-line astronomy content. PTTU serves as an index and aggregator for astronomy content for laypeople, press, educators, decision-makers, scientists and more. During its first two months of operation, PTTU received almost 100 000 visitors.

Universe Awareness (UNAWA) is an international outreach initiative that uses the beauty and scale of the Universe to inspire very young children in underprivileged environments. To date, programmes have been organised in 30 countries, producing many hundreds of educational resources. For example, in Tunisia more than 40 000 children have been participating in UNAWA activities since January 2009.

The cornerstone project *Developing Astronomy Globally* (DAG) has surveyed the status of astronomy research and education in more than 45 countries. To support projects and activities in developing regions, IYA2009 provided seed funding for development initiatives coordinated via DAG. Proposals from the following countries have been selected: Nepal, Uganda, Mongolia, Nicaragua, Nigeria, Kenya, Ethiopia, Gabon, Rwanda, Uruguay, the Former Yugoslav Republic of Macedonia and Tajikistan. More global educational activities come courtesy of the Galileo Teacher Training Program, which is running workshops in 25 countries.

Astronomical Heritage is a strong theme running throughout IYA2009. The IAU's Working Group on *Astronomy and World Heritage*, along with the International Council on Monuments and Sites, has begun the first Thematic Study in any field of science heritage. The results of the study will be reported to UNESCO's World Heritage Committee, bringing the protection and preservation of important astronomy sites to the world's attention. The Thematic Study's findings will also form the basis for developing specific guidelines for UNESCO member states on the inscription of astronomical properties.

It is fitting that cutting-edge astronomical research is reaching new heights in 2009. In May ESA launched *Herschel* and *Planck* – two of the most ambitious space missions ever attempted, ready to break new ground in astronomy. The IYA2009 logo and motto was proudly displayed on the Ariane 5 rocket that sent them to space. Also in May astronauts performed repairs and equipped the NASA/ESA *Hubble Space Telescope* with the latest in instrument technology. To honour IYA2009, astronaut Mike Massimino took on-board with him a replica of Galileo's telescope as well as an IYA2009 flag.

Although IYA2009's achievements to date are certainly impressive, it has only reached its halfway point and many new initiatives are in the works. For example, 23-24 October will see the launch of *Galilean Nights*, the follow-up to the highly successful *100 Hours of Astronomy* presentation.

For further details see the IAU IYA-2009 web site <www.astronomy2009.org/>.

1.4.2. *Category name for transneptunian dwarf planets*

In the aftermath of the planet definition resolutions debate at the IAU XXVI General Assembly in Prague, 2006, the EC asked IAU Division III to fulfill the task asked for in the Footnote 2 to Prague Resolution 5: "An IAU process will be established to assign borderline objects to the dwarf planet or to another category".

At its EC84 meeting, 28-30 May 2008 in Oslo, Norway, the EC accepted the recommendation of Division III to use the name *plutoid* for transneptunian dwarf planets similar to Pluto.

1.4.3. *EC Working Group on Women in Astronomy*

The Working Group on Women in Astronomy was formed during the IAU XXV General Assembly in Sydney, Australia, July 2003. The aims of the Working Group are to evaluate the status of women in astronomy through the collection of statistics over all countries where astronomy research is carried out; and to establish strategies and actions that can help women to attain true equality as research astronomers, which will add enormous value to all of astronomy.

1.4.4. *EC Working Group on Publishing*

In Spring 2009, the GS received notice from the chair that the EC-WG on Publishing had been disbanded.

1.4.5. *EC Working Group on Future Large Scale Facilities*

This WG is a small activity dedicated to ensuring that proposed Future Large Scale Facilities are widely reported to the IAU community at appropriate meetings. Multi-wavelength meetings are proposed to ensure project complementarity, and that there is the widest feasible community involvement in planning. Additionally, national and international facility plans are reported at the relevant meetings, again in the interests of improved communication.

The WG role is largely in maximising the breadth of information transfer. Facility plans are undertaken by dedicated national and international groups, such as NASA, ESA, AstroNet, and the US NAS/NSF Decadal Review. The relevant projects are presumed to manage their own information to their own communities.

1.4.6. *EC-WG on General Assemblies*

The Working Group stands by for questions on the organization of General Assemblies.

1.4.7. *EC Advisory Committee on Hazards of Near-Earth Objects*

During the triennium the Advisory Committee did not identify cases of Near Earth Objects justifying to alert the EC on potentially hazardous NEOs.

2. Membership of the Union

2.1. *National Membership*

During the IAU XXVI General Assembly in Prague, 2006, upon recommendation of the Executive Committee, the General Assembly welcomed Lebanon, Mongolia and Thailand as new National Members of the IAU. This brought the total number of National Members to 63.

2.2. *Individual Membership*

The number of new Individual Members welcomed by the IAU XXVI General Assembly in Prague, 2006, upon recommendation of the Nominating Committee, was 925.

The IAU Executive is saddened to report the death of the following 159 members of the Union, which have been reported to the IAU Secretariat since the IAU XXVI General Assembly in 2006:

Abhyankar, K.D.	Alpher, Ralph A.	Andrillat, Henri
Anteres K., Oliveira G.	Bateson, Frank M.	Behr, Alfred
Beurle, Kevin	Bisiacchi Giralardi, Gianfranco	Blunck, Jürgen
Boldt, Elihu	Bonifazi, Angelo	Boydag-Y., Fatma S.
Bracewell, Ronald N.	Brahde, Rolf	Brault, James W.
Brown, Ronald D.	Bruck, Mary T.	Bunclark, Peter S.
Cacciani, Alessandro	Cheffler, Helmut	Chen, Kwan-Yu
Chen, Meidong	Christiansen, Wilbur N.	Clarke, Arthur C.
Code, Arthur D.	Codina Ladanberry, Sayd J.	Cohen, Raymond J.
Cudaback, David D.	Damle, S.V.	Davis, Sumner P.
de Araújo, Francisco X.	Debehogne, Henri	Delbouille, Luc
Douglas, James N.	Edmondson, Frank K.	Ehlers, Jürgen
Fairall, Anthony P.	Fehrenbach, Charles	Fenton, Keith B.
Ferrari DO., Konradin	Firor, John W.	Fitton, Brian
Forti, Giuseppe	Friend, David B.	Giclas, Henri L.

Greisen, Kenneth I.	Haddock, Fred T.	Hagfors, Tor
Harrison, Edward R.	Hassan, S.M.	Hauge, Øivind
Hazen, Martha L.	Heintz, Wulff-Dieter	Helin, Eleanor F.
Henrard, Jacques	Hoffleit, E. Dorrit	House, Franklin C.
Isobe, Syuzo	Jarrett, Alan H.	Jennison, Roger C.
Johansson, Lars E.B.	Johansson, Sveneric	Jovanovic, Bozidar
Kadla, Zdenka I.	Kazš, Ilya	Kiang, Tao
Klarmann, Joseph	Kopecky, Miloslav	Kosugi, Takeo
Kourganoff, Vladimir	Krivsky, Ladislav	Kuznetsov, Oleg A.
Labs, Dietrich	Lanning, Howard H.	Lantos, Pierre
Little, Leslie T.	Low, Frank J.	Lyty, Victor M.
Macrae, Donald A.	Maffei, Paolo	Mahra, H.S.
Makarov, Valentin I.	Marsh, Julian C.D.	Massevich, Alla G.
Mendoza-Briceno, César	Mulholland, John D.	Naumov, Vitalij A.
Ne'eman, Yuval	Niemela, Virpi S.	North, John D.
Novick, Robert	Novoselov, Viktor S.	Odgers, Graham J.
Oliveira, Grijo A.K.	Osterbrock, Donald E.	Ostro, Steven J.
Paczynski, Bohdan	Pagel, Bernard E.J.	Pal, Arpad
Pallavicini, Roberto	Pasinetti, Laura E.	Perinotto, Mario
Petropoulos, Basil Ch.	Plavec, Mirek J.	Pokorny, Zdenek
Popelar, Josef	Popov, Viktor S.	Potter, Heino I.
Poulakos, Constantine	Praderie, Françoise	Predeanu, Irina
Prodan, Yurij I.	Pustynnik, Izold	Raghavan, Nirupama
Reeves, Edmond M.	Refsdal, Sjur	Rivenq, Claude
Rudkjøbing, Mogens	Rumsey, Norman J.	Sadzakov, Sofia
Salpeter, Edwin E.	Schimmins, Albert J.	Schueker, Peter
Schwarz, Hugo E.	Sears, Richard L.	Seaton, Michael J.
Seitter, Waltraut C.	Shapley, Alan H.	Shitov, Yurij P.
Shmiedler, Felix	Sholomitsky, Gennady B.	Shulman, Leonid M.
Simovljevic, Jovan	Slysh, Vyacheslav I.	Smirnov, Mikhail A.
Smith, Harding E.	Sochilina, Alla S.	Solomon, Philip M.
Tifrea, Emilia	Toner, Clifford G.	Traving, Gerhard
Treder, Hans Juergen	Turner, Barry E.	Valiron, Pierre
Van Allen, James A.	Van Flandern, Tom	Voglis, Nikos
von Weizsäcker, Carl Friedrich	Walraven, Theo	Wendker, Heinrich J.
Westerlund, Bengt E.	Wetherhill, George W.	Wheeler, John A.
Whitrow, Gerald J.	Wild, John P.	Wilson, Andrew S.
Wilson, James R.	Xi, Zezong	Yuan, Chi

As of 24 July 2009 the total number of IAU Individual Members was 9 260. The IAU Secretariat received a number of 889 nominations for new Individual Membership, for consideration by the Nominating Committee at the IAU XXVII General Assembly in Rio de Janeiro, August 2009. The number of Consultants listed in the data base is 45.

3. Divisions, Commissions, Working/Program Groups, Services

3.1. *Working Groups of Divisions and Commissions*

Discontinuation of a Commission and of Working Groups, going into effect at the IAU XXVI General Assembly in Prague, 2006, has been published in IAU *Information*

Bulletin No. 99, section 4.2. Creation of new Commissions and Working Groups, going into effect at the IAU XXVI General Assembly in Prague, 2006, has been published in IAU *Information Bulletin* No. 99, section 4.3.

Reviews of all IAU scientific bodies will be presented by the IAU Division Presidents in the Executive Committee meeting EC86 at the IAU General Assembly in Rio de Janeiro, 2009. The Division Presidents will present to the IAU Executive Committee their recommendations about necessary changes in the current division and commission structure, in order to meet the demands and challenges for the next triennium and beyond.

4. IAU scientific meetings

4.1. IAU Symposia

The IAU supported nine IAU Symposia in each of the years 2006, 2007, 2008, 2009. In General Assembly years, six of the nine Symposia are held at the General Assembly. The venues and dates of these Symposia are given in the list of IAU Proceedings presented below.

4.2. Regional IAU Meetings

In the triennium, the following Regional IAU Meetings (RIMs) have been supported:

- the 12th Latin-American Regional IAU Meeting, 22 - 26 October 2007, Isla de Margarita, Venezuela;
- the 10th Asian-Pacific Regional IAU Meeting, 3 - 6 August 2008, Kunming, China P.R.

As a new initiative, a Regional IAU Meeting in the Middle-East was supported, reaching also out to Africa:

- the 1st Middle-East Africa Regional IAU Meeting, 5 - 10 April 2008, Cairo, Egypt.

5. IAU publications

During the triennium the following volumes have been published.

5.1. IAU *Highlights of Astronomy*

Highlights of Astronomy, Volume 13

AS PRESENTED AT THE XXVth GENERAL ASSEMBLY OF THE IAU

Sydney, Australia, 13-26 July 2003

Ed. Oddbjørn Engvold

(San Francisco: ASP) ISBN 1-58381-189-3, August 2006

Highlights of Astronomy, Volume 14

AS PRESENTED AT THE XXVIth GENERAL ASSEMBLY OF THE IAU

Prague, Czech Republic, 14-25 August 2006

Ed. Karel A. van der Hucht

(Cambridge: CUP) ISBN 978-0-521-89683-2, December 2007

URL: <journals.cambridge.org/action/displayIssue?jid=IAU&volumeId=2&issueId=14>

5.2. *IAU Transactions***Proceedings of the XXVth General Assembly of the IAU***Transactions of the IAU*, Volume XXVB

Sydney, Australia, 13 - 26 July 2003

Ed. Oddbjørn Engvold

(San Francisco: ASP) ISBN 978-1-58381-647-9, 2007

Reports on Astronomy 2003 - 2006*Transactions of the IAU*, Volume XXVIA

Ed. Oddbjørn Engvold

(Cambridge: CUP) ISBN 0-521-85604-3, 2007

URL: <journals.cambridge.org/action/displayIssue?jid=IAU&volumeId=1&issueId=T26A>**Proceedings of the XXVIth General Assembly of the IAU***Transactions of the IAU*, Volume XXVIB

Prague, Czech Republic, 14 - 25 August 2006

Ed.: Karel A. van der Hucht

(Cambridge: CUP) ISBN 978-0-521-85606-5, November 2008

URL: <journals.cambridge.org/action/displayIssue?jid=IAU&volumeId=3&issueId=T26B>**Reports on Astronomy 2006 - 2009***Transactions of the IAU*, Volume XXVIIA

Ed. Karel A. van der Hucht

(Cambridge: CUP) ISBN 978-0-521-85605-8, January 2009

URL: <journals.cambridge.org/action/displayIssue?jid=IAU&volumeId=4&issueId=T27A&iid=3578468>5.3. *IAU Symposium Proceedings***IAU S233 Solar Activity and its Magnetic Origin**

31 March - 4 April 2006, Cairo, Egypt

Eds. Volker Bothmer & Ahmed A. Hady

(Cambridge: CUP) ISBN 978-0-521-86342-1, November 2006

IAU S234 Planetary Nebulae in our Galaxy and Beyond

3-7 April 2006, Waikoloa Beach, HI, USA

Eds. Michael J. Barlow & Roberto H. Mendez

(Cambridge: CUP) ISBN 978-0-521-86343-8, December 2006

IAU S235 Galaxy Evolution across the Hubble Time

14-17 August 2006, Prague, Czech Republic

Eds. Françoise Combes & Jan Palouš

(Cambridge: CUP) ISBN 978-0-521-86344-5, March 2007

IAU S236 Near Earth Objects, our Celestial Neighbors: Opportunity and Risk

14-18 August 2006, Prague, Czech Republic

Eds. Andrea Milani, Giovanni B. Valsecchi & David Vokrouhlický

(Cambridge: CUP) ISBN 978-0-521-86345-2, May 2007

IAU S237 Triggered Star Formation in a Turbulent Interstellar Medium

14-18 August 2006, Prague, Czech Republic

Eds. Bruce G. Elmegreen & Jan Palouš

(Cambridge: CUP) ISBN 978-0-521-86346-9, April 2007

IAU S238 Black Holes: from Stars to Galaxies – across the Range of Masses 21 - 25 August 2006, Prague, Czech Republic

Eds. Vladimír Karas & Giorgio Matt

(Cambridge: CUP) ISBN 978-0-521-86347-6, May 2007

IAU S239 Convection in Astrophysics

21 - 25 August 2006, Prague, Czech Republic

Eds. Friedrich Kupka, Ian W. Roxburgh & Kwing Lam Chan

(Cambridge: CUP) ISBN 978-0-521-86349-0, May 2007

IAU S240 Binary Stars as Critical Tools and Tests in Contemporary Astrophysics

22 - 25 August 2006, Prague, Czech Republic

Eds. William I. Hartkopf, Edward F. Guinan & Petr Harmanec

(Cambridge: CUP) ISBN 978-0-521-86348-3, July 2007

IAU S241 Stellar Populations as Building Blocks of Galaxies

10 - 16 December 2006, La Palma, Tenerife, Spain

Eds. Alexandre Vazdekis & Reinier F. Peletier

(Cambridge: CUP) ISBN 978-0-521-86350-6, August 2007

IAU S242 Astrophysical Masers and their Environments

12 - 16 March 2007, Alice Springs, Australia

Eds. Jessica M. Chapman & Willem A. Baan

(Cambridge: CUP) ISBN 978-0-521-87464-9, January 2008

IAU S243 Star-Disk Interaction in Young Stars

21 - 25 May 2007, Grenoble, France

Eds. Jérôme Bouvier & Immo Appenzeller

(Cambridge: CUP) ISBN 978-0-521-87465-6, November 2007

IAU S244 Dark Galaxies and Lost Baryons

25 - 29 June 2007, Cardiff, Wales, UK

Eds. Jonathan I. Davies & Michael J. Disney

(Cambridge: CUP) ISBN 978-0-521-87466-3, February 2008

IAU S245 Formation and Evolution of Galaxy Bulges

16 - 20 July 2007, Oxford, UK

Eds. Martin G. Bureau, Evangelia Athanassoula & Beatriz Barbuy

(Cambridge: CUP) ISBN 978-0-521-87467-0, July 2008

IAU S246 Dynamical Evolution of Dense Stellar Systems

5 - 9 September 2007, Capri, Italy

Eds. Enrico Vesperini, Mirek Giersz & Alison I. Sills

(Cambridge: CUP) ISBN 978-0-521-87468-7, May 2008

IAU S247 Waves and Oscillations in the Solar Atmosphere: Heating and Magneto-Seismology

17- 22 September 2007, Porlamar, Isla de Margarita, Venezuela

Eds. Robert Erdélyi & César A. Mendoza-Briceño

(Cambridge: CUP) ISBN 978-0-521-87469-4, May 2008

IAU S248 A Giant Step: from Milli- to Micro-arcsecond Astrometry

15- 19 October 2007, Shanghai, China P.R.

Eds. Wenjing Jin, Imants Platais & Michael A.C. Perryman

(Cambridge: CUP) ISBN 978-0-521-87470-0, July 2008

IAU S249 Exoplanets: Detection, Formation and Dynamics

22- 26 October 2007, Suzhou, China P.R.

Eds. Yi-Sui Sun, Sylvio Ferraz Mello & Ji-Lin Zhou

(Cambridge: CUP) ISBN 978-0-521-87471-7, May 2008

IAU S250 Massive Stars as Cosmic Engines

10- 14 December 2007, Kauai, Hawaii, USA

Eds. Fabio Bresolin, Paul A. Crowther & Joachim Puls

(Cambridge: CUP) ISBN 978-0-521-87472-4, June 2008

IAU S251 Organic Matter in Space

18- 22 February 2008, Hong Kong, China P.R.

Eds. Sun Kwok & Scott A. Sandford

(Cambridge: CUP) ISBN 978-0-521-88982-7, October 2008

IAU S252 The Art of Modelling Stars in the 21st Century

6- 11 April 2008, Sanya, Hainan Island, China P.R.

Eds. Licai Deng & Kwing-Lam Chan

(Cambridge: CUP) ISBN 978-0-521-88983-4, October 2008

IAU S253 Transiting Planets

19- 23 May 2008, Cambridge, MA, USA

Eds. Frédéric Pont, Dimitar D. Sasselov & Matthews J. Holman

(Cambridge: CUP) ISBN 978-0-521-88984-1, February 2009

IAU S254 The Galaxy Disk in Cosmological Context

9- 13 June 2008, Copenhagen, Denmark

Eds. Johannes Andersen, Joss Bland-Hawthorn & Birgitta Nordström

(Cambridge: CUP) ISBN 978-0-521-88985-8, 2009

IAU S255 Low-Metallicity Star Formation: from the First Stars to Dwarf Galaxies

16- 20 June 2008, Rapallo, Genova, Italy

Eds. Leslie K. Hunt, Suzanne C. Madden & Raffaella Schneider

(Cambridge: CUP) ISBN 978-0-521-88986-5, December 2008

IAU S256 The Magellanic System: Stars, Gas, and Galaxies

28 July - 1 August 2008, Keele University, Staffordshire, UK

Eds. Jacco Th. van Loon & Joana M. Oliveira
(Cambridge: CUP) ISBN 978-0-521-88987-2, March 2009

IAU S257 Universal Heliophysical Processes

15-19 September 2008, Ioannina, Greece

Eds. Natchimuthukonar Gopalswamy & David F. Webb
(Cambridge: CUP) ISBN: 987-0-521-88988-9, March 2009

IAU S258 The Ages of Stars

13-17 October 2008, Baltimore, MD, USA

Eds. Eric E. Mamajek, David R. Soderblom & Rosemary F.G. Wyse
(Cambridge: CUP) ISBN: 978-0-521-88989-6, June 2009

IAU S259 Cosmic Magnetic Fields: from Planets, to Stars and Galaxies

3-7 November 2008, Puerto Santiago, Tenerife, Spain

Eds. Klaus G. Strassmeier, Alexander G. Kosovichev & John E. Beckman
(Cambridge: CUP) ISBN: 978-0-521-88990-2, April 2009

For a complete list of IAU Symposium Proceedings, see

www.iau.org/science/publications/iau/symposium/.

For e-versions, see: journals.cambridge.org/action/displayJournal?jid=IAU.

For printed volumes, see: www.cambridge.org/uk/series/sSeries.asp?code=IAUP.

5.4. Proceedings of Regional IAU Meetings

Proc. 11th Latin-American Regional IAU Meeting (LARIM 2005)

12-16 December 2005, Pucón, Chile

Eds. Leopoldo Infante, Mónica Rubio & Silvia Torres-Peimbert

Revista Mexicana de Astronomía y Astrofísica - Serie de Conferencias, Vol. 26, August 2006

Proc. 12th Latin-American Regional IAU Meeting (LARIM 2007)

22-26 October 2007, Isla Margarita, Venezuela

Eds. Gladis Magris, Gustavo A. Bruzual & Leticia Carigi

Revista Mexicana de Astronomía y Astrofísica - Serie de Conferencias, Vol. 35, June 2009

Proc. 1st Middle East and Africa Regional IAU Meeting (MEARIM 2008)

5-10 April 2008, Cairo, Egypt

Eds. Athem W. Alsabti, Ahmed Abdel Hady & Volker Bothmer (Cairo: University of Cairo Press), in preparation, 2009

Proc. 10th Asian-Pacific Regional IAU Meeting (APRIM 2008)

3-6 August 2008, Kunming, China P.R.

Eds. Shuang-Nan Zhang, Yan Li, Qingjuan Yu & Guo-Qing Liu

(Beijing: China Science & Technology Press), June 2009

For a complete list of Proceedings Regional IAU Meetings, see:

www.iau.org/science/publications/iau/regional_meeting/.

5.5. *IAU Information Bulletin*

During the triennium, the IAU Secretariat published six *IAU Information Bulletins*: IB No. 99 (January 2007), IB No. 100 (July 2007), IB No. 101 (January 2008), IB No. 102 (July 2008), IB No. 103 (January 2009), and IB No. 104 (June 2009). The on-line version of the *IAU Information Bulletin* is available at www.iau.org/science/publications/iau/information.bulletin/.

5.6. *IAU e-Newsletter*

During the triennium, the IAU Secretariat informed the IAU membership 13 times on timely matters by e-mail in its *e-Newsletters*. The on-line version of the *IAU e-Newsletter* is available at www.iau.org/science/publications/iau/newsletters/.

5.7. *IAU Press Releases*

During the triennium, the IAU Press Officer, Lars Lindberg Christensen, issued 6 Press Releases in 2006, 3 in 2007, 10 in 2008, and 14 in 2009. IAU Press Releases are available on-line at www.iau.org/public_press/news/.

5.8. *Other IAU related publications*

Astronomy for the Developing World

Proc. IAU XXVI General Assembly Special Session 5
21 - 22 August 2006, Prague, Czech Republic
Eds. John Hearnshaw & Peter Martinez 2007
(Cambridge: CUP), ISBN 978-0-521-87657-5, August 2007

5.9. *IAU Publisher*

The contract between the IAU and Cambridge University Press for publishing the *IAU Symposium Proceedings* series, the *IAU Highlights of Astronomy* series, and the *IAU Transactions-A and -B* series was renewed by January 2009 and runs till December 2013.

5.10. *IAU Editorial Board*

The IAU Editorial Board ensures good communication among the Editors of the individual Proceedings. The Editorial Board is chaired by the IAU Assistant General Secretary. In the past triennium the average production for publishing of individual IAU Proceedings was eight months (five months for the editors and three months for the publisher).

5.11. *History of the IAU*

At the occasion of the 100th *IAU Information Bulletin*, reminiscences of twelve past IAU General Secretaries have been published in IB No. 100. At the occasion of the 90th anniversary of the IAU, reminiscences of six past IAU Presidents have been published in IB No. 104. Histories of the Minor Planet Center, the Committee on Small Bodies Nomenclature, the Working Group on Planetary System Nomenclature, and the Central Bureau for Astronomical Telegrams have been published in IB No. 104.

6. Educational activities

Educational programmes under IAU Commission 46 on *Astronomy Education and Development* represent a high priority activity and responsibility of the IAU. The Executive

Committee recognizes the many successful and promising results obtained by the Commission 46 Program Groups.

On the initiative of the IAU Executive Committee, in particular of Vice-President George K. Miley a discussion meeting of parties associated with IAU educational activities took place in Paris, 27-29 January 2008. Subsequently a comprehensive document was prepared: *Astronomy for the Developing World. Strategic Plan 2010-2020*. This document was approved by the EC at its meeting EC85 and EC86, and will be submitted for implementation to the IAU XXVII General Assembly in Rio de Janeiro, Brazil, August 2009.

6.1. *Commission 46 PG International Schools for Young Astronomers*

The Commission 46 Program Group on *International Schools for Young Astronomers* (PG-ISYA) arranged ISYAs in the years between General Assemblies:

- 29th ISYA, Kuala Lumpur and Langkawi, Malaysia, 5-24 March 2007,
- 30th ISYA, Istanbul, Turkey, 1-22 July 2008.

Information and reports of these ISYAs have been published in IAU *Information Bulletins* No. 100, p. 46, No. 101, p. 38, and No. 102, p. 76.

A report on IAU *International Schools for Young Astronomers* over the period 1967-2007 has been published by PG chair Prof. Michèle Gerbaldi in: van der Hucht, K.A. (ed.), 2008, Proceedings of the XXVIth General Assembly of the IAU, Prague, August 2006, *Transactions IAU*, Vol. XXVIB (Cambridge: CUP), p. 238. A comprehensive review of the same has been published by past PG chair Prof. Michèle Gerbaldi in: Hearnshaw, J. & Martinez, P. (eds.), 2007, *Astronomy for the Developing World*, Proc. IAU IAU XXVI GA Special Session No. 5, Prague, August 2006 (Cambridge: CUP), p. 221.

During the past triennium, the IAU was co-sponsor of COSPAR Capacity Building Workshops related to education in astrophysics.

6.2. *Commission 46 PG World Wide Development of Astronomy*

In agreement with its mission, members of the Commission 46 Program Group on *World Wide Development of Astronomy* (PG-WWDA) has made exploratory visits to countries developing in astronomy. Reports of visits to Bangladesh, Ecuador, Laos, Mozambique, Peru, Thailand, Uruguay, and Uzbekistan, have been published in IAU *Information Bulletins* No. 100, p. 50, and in: van der Hucht, K.A. (ed.), 2008, Reports of Astronomy, *Transactions IAU*, Vol. XXVIA, (Cambridge: CUP), p. 429.

6.3. *Commission 46 PG on Teaching for Astronomy Development*

The Commission 46 Program Group on *Teaching for Astronomy Development* (PG-TAD) has continued and initiated educational programs in Kazakhstan, Kenya, Democratic People's Republic of Korea, Mongolia, Morocco, Nepal, Nicaragua, Philippines, Trinidad & Tobago, Vietnam, and Uzbekistan. Reports on these have been published in IAU *Information Bulletins* No. 100, p. 47, No. 101, p. 40, and No. 102, p. 73.

7. Relations with international scientific organizations

The IAU maintains relations with a number of international scientific organizations. All those organizations, as well as the IAU, are members of the International Council for Science (ICSU). ICSU <www.icsu.org> sets out its 'mission' as "to strengthen international science for the benefit of society" and its 'vision' as "a world where science is used

for the benefit of all, excellence in science is valued and scientific knowledge is effectively linked to policy-making. In such a world, universal and equitable access to high quality scientific data and information is a reality and all countries have the scientific capacity to use these and to contribute to generating the new knowledge that is necessary to establish their own development pathways in a sustainable manner.”

In the triennium the IAU was represented in the following international scientific organizations:

	<i>Organization</i>	<i>IAU Representative</i>
ICSU	International Council for Science	Ian F. Corbett
BIPM	Bureau International des Poids et Mesures	
— CCTF	Consultative Committee for Time and Frequency	Toshio Fukushima
— CCU	Consultative Committee for Units	Nicole Capitaine
— CIE	Compagnie Internationale de l'Éclairage	<i>vacant</i>
CODATA	Committee on Data for Science and Technology	Raymond P. Norris
COSPAR	Committee on Space Research	
— Council		Jean-Claude Vial
— SC B	Space Studies of the Earth-Moon System, Planets and Small Bodies of the Solar System	Mikhail Ya. Marov
— SC D	Space Plasmas in the Solar System, including Planetary Magnetospheres	Marek Vandas
— SC E	Research in Astrophysics from Space	Mariano Mendez
— SC E1	Galactic and Extragalactic Astrophysics	Ganesan Srinivasan
— SC E2	The Sun as a Star	Arnold O. Benz
FAGS	Federation of Astronomical and Geophysical Services	Nicole Capitaine
IAF	International Astronautical Federation	Bernhard H. Foing
IERS	International Earth Rotation and Reference Systems Service	Nicole Capitaine
IGBP	International Geosphere-Biosphere Programme	Richard G. Strom
IHY	International Heliophysical Year	David F. Webb
ISES	International Space Environment Service	Helen E. Coffey
ITU	International Telecommunication Union	William J. Klepczynski
— ITU-R	Radiocommunication Bureau	Tomas E. Gergely
IUCAF	Scientific Committee on Frequency Allocations	Masatoshi Ohishi
IUPAP	International Union of Pure and Applied Physics	Wim van Driel
— C4	Commission on Cosmic Rays	Ian F. Corbett
— C19	Commission on Astrophysics	Heinrich J. Voelk
IVS	International VLBI Service for Geodesy and Astrometry	Virginia L. Trimble
SCAR	Scientific Committee on Antarctic Research	Patrick Charlot
SCOPE	Scientific Committee on Problems of the Environment	John W.V. Storey
SCOSTEP	Scientific Committee on Solar-Terrestrial Physics	Derek McNally
UN-COPUOS	UN Committee on the Peaceful Uses of Outer Space	Nat Gopalswamy
URSI	Union Radio-Scientifique Internationale	Karel A. van der Hucht
		Luis F. Rodriguez

8. Financial matters

The IAU budget for 2006 - 2009 had been approved by the IAU XXVI General Assembly in Prague, August 2006. Appendix II of this chapter presents the IAU budget, income and expenditure for the years 2006, 2007 and 2008, as well as the IAU budget for 2009.

The General Secretary is very pleased to report that the following IAU National Members stepped up their Category of Adherence to the IAU during the triennium:

- from Category I to II: Chile, China Taipei, New Zealand and Norway
- from Category II to III: Czech Republic, Israel, Mexico and Ukraine
- from Category IV to V: India, the Netherlands
- from Category V to VI: China Nanjing
- from Category V to VII: Italy
- from Category IX to X: USA.

The accounts for the year 2006 have been certified by the IAU Auditor, Msr. Arnaud de Boisanger; the accounts for the years 2007 and 2008 have been certified by the new IAU Auditor, Msr. Henri Grillet. The accounts for 2006 and 2007 were complicated by financial fraud, as explained in the section on the IAU Secretariat, given below.

The Finance Sub-Committee, chaired by Dr. Paul G. Murdin, provided most helpful advice and guidance to the General Secretary on all financial matters of the Union during the triennium.

8.1. *Comments on budget 2010-2012*

The proposed budget for the years 2010-2012 is presented at the end of chapter II of these Transactions. The budget for the years 2010-2012 was approved by the Executive Committee at its meeting EC85, 7-8 April 2009 in Paris. The Executive Committee recommends an increase of the IAU educational activities, and the hiring of a third full time staff member in the IAU Secretariat in Paris, France.

9. Administrative matters

9.1. *Revision of Statutes and Bye-Laws*

The IAU XXVI General Assembly adopted a revision of the Statutes and Bye-Laws. See: van der Hucht, K.A. (ed.), 2008, *IAU Transactions*, Vol. XXVIB, p. 251.

Proposed changes in the Statutes and Bye-Laws up for voting at the IAU XXVII General Assembly in Rio de Janeiro have been presented in *IAU Information Bulletin* No. 104, p. 27.

9.2. *Upgrading of IAU data base and web site*

During the previous triennium, the IAU data base and web site had been upgraded thoroughly under the guidance of past General Secretary Oddbjørn Engvold and with help of a French contractor, AMEOS. Because of the ever increasing demands placed on the web site from both astronomers and the public at large, it appeared desirably to overhaul data base and website again, with as contractor a software group at ESO, overseen by Lars Lindberg Christensen. The new IAU data base and web site became operational in May 2008. Our contractor at ESO continues to maintain and upgrade the IAU web site and data base. The IAU greatly appreciates the level of support it has received under its agreements with ESO.

9.3. *Secretariat*

The IAU Secretariat, based in Paris, has undergone profound changes in the past three years. The triennium started with two full-time staff members, Mme Monique Orine, Executive Assistant, and Mme Claire Vidonne, data base and website assistant, plus two part-time assistants. When Mme Vidonne left in October 2006, her work was partly outsourced, eventually leading to a complete overhaul of both the database and the

website by a contractor at ESO. Part-time office assistant Mme Mary Noel Giraud left in January 2008. Office assistant Mme Maitena Mitschler left in May 2009 and was replaced in July 2009 by Mme Jana Žilová.

Mme Orine, who had served the IAU for over twenty years, was due to retire in December 2008, while continuing as a consultant through the General Assembly in Rio de Janeiro. Her sudden demise in January 2008 left the IAU Secretariat without a transition of knowledge to a successor.

The General Secretary, working full time for the IAU, usually spends on-third of the time physically at the IAU Secretariat. During the triennium 2006-2009 he did spend an average of 8.6 working days per month at the IAU Secretariat in Paris.

In March 2008, Mme Vivien A. Reuter accepted the job of IAU Executive Assistant. General Secretary and Executive Assistant together embarked upon the re-invention of the IAU Secretariat.

While perusing numerous documents and computer files, we found ample evidence that Mme Orine had been much appreciated and praised by the IAU community. There is no doubt that she invested much energy and enthusiasm in her work and identified with the IAU. However, we also found clear evidence that, through a clever scheme of financial fraud, involving fake and inflated invoices and unauthorised signatures, Mme Orine had, since 1998 and possibly from the very beginning of her employment in 1987, systematically taken money from the IAU. Disappointing and upsetting as this may be, two points should be emphasized: the fraud was restricted to inflating the administrative costs of the Secretariat, and none of the programmes or activities of the IAU is implicated in any way. All the money stolen went through the books, so no unforeseen deficits have emerged as a consequence. In spite of this illegal activity, I am pleased to report that the current finances of the IAU are healthy.

Designed to be virtually undetectable by the General Secretaries, by the Finance Subcommittees and by the external auditor, this fraud was clearly facilitated by the practices of our bank Le Crédit Lyonnais (LCL) in Paris. Having recovered and analysed all bank cheques written out on behalf of the IAU and cashed over the period mid-1998 – 2007 (older cheques having been routinely destroyed by the bank), the IAU lawyer has filed a claim for about EUR 350 000 against the bank LCL in Paris on behalf of the IAU.

The General Secretary and the Executive Assistant have taken the following measures, among others, in the IAU Secretariat to reduce the risk of recurrence of fraud:

- A sophisticated financial software package (SAGE) has been installed to increase transparency of the IAU book-keeping and to render posterior changes impossible.
- The preparation of the annual accounts is supervised by a professional accountant clerk.
- A new auditor has been contracted for a period of seven years at maximum.
- Payments are made through electronic transfer, whenever feasible, thus reducing the use of bank cheques to a minimum.

10. Relationship with the Peter and Patricia Gruber Foundation

The relationship between the IAU and the Gruber Foundation has been reconfirmed in a First Amended Agreement on Collaboration. See Appendix III.

10.1. *The Gruber Cosmology Prize*

During the triennium, the IAU has provided the following members for the Gruber Foundation Cosmology Prize Advisory Board: Jocelyn S. Bell Burnell (UK), James E. Peebles (USA), Ronald D. Ekers (Australia), and Andrei Linde (USA). Gruber Foundation

Cosmology Prize laureates are:

2006: John C. Mather (USA) and the Cosmic Background Explorer Team.

2007: Saul Perlmutter (USA) and the members of the Supernova Cosmology Project; and Brian P. Schmidt and the members of the High-z Supernova Search Team.

2008: J. Richard Bond (Canada).

2009: Wendy L. Freeman (USA), Robert C. Kennicutt (UK) and Jeremy R. Mould (Australia).

10.2. *The Gruber Fellowships*

During the triennium the Gruber Foundation provided funds for post-doc Fellowships. The Gruber Fellows, selected from proposals reviewed by an IAU selection committee, are:

2006: Inma Martinez-Valpuesta (Spain, working in France) and Hum Chand (India, working in France).

2007: Krzysztof Blejko (Poland, working in Australia).

2008: Karen L. Masters (USA, working in UK).

2009: Mattheus B.N. Kouwenhoven (UK, working in Beijing).

11. Relationship with the Norwegian Academy of Science and Letters. The Kavli Prize in Astrophysics. The ISYAs.

11.1. *Kavli Prizes*

The Kavli Prizes are awarded every other year to one or more leaders in the areas of astrophysics, nano science and neuro science. Winners receive a US \$1 000 000 prize as well as a medal and a diploma in recognition of their cutting-edge research. The Prizes have been established in order to recognise outstanding scientific research, honour highly creative scientists, promote public understanding of scientists and their work, and foster international cooperation among scientists. The first Kavli Prizes were given in 2008.

The *Kavli Prize in Astrophysics* is awarded for outstanding achievement in advancing our knowledge and understanding of the origin, evolution, and properties of the universe. It will include the fields of cosmology, astrophysics, astronomy, planetary science, solar physics, space science, astrobiology, astronomical and astrophysical instrumentation, and particle astrophysics.

The Norwegian Academy of Science and Letters and the International Astronomical Union agreed to cooperate on future *Kavli Prizes in Astrophysics*.

11.2. *Kavli Prize in Astrophysics 2010*

Beginning in 2009, the IAU and the NASL will collaborate on choosing the members of the *Kavli Prize in Astrophysics* selection committee. The Academy will remain responsible for the announcement of the Prize and the nomination of the winners; however, they will seek advice from the Kavli Foundation and the IAU. The IAU will also announce the names of the winners through its IAU *Information Bulletin* and on its web site.

The agreement between the Norwegian Academy of Science and Letters and the IAU and was signed on 29 May 2008 by the President of the NASL, Prof. Ole Didrik Laerum, and the President of the IAU, Dr. Catherine J. Cesarsky. The text of the Agreement is presented in Appendix IV.

11.3. *The IAU International Schools for Young Astronomers and the Norwegian Academy of Science and Letters*

For the benefit of countries and regions that need support in development of astrophysical education and research, the NASL will co-sponsor one IAU International School for Astronomy (ISYA) every year, beginning in 2009. The financial support by the NASL per year is US\$ 30 000. The curriculum and venue for an IAU ISYA will be determined by the IAU Division XII / Commission 46 Program Group for ISYA, together with the Local Organizer of the ISYA, and will be overseen by the IAU Vice-President in charge of IAU educational programs. Appropriate procedures for the announcement of the IAU ISYAs will be developed by the NASL and the IAU. Announcement and application information for the IAU ISYAs will be published in the IAU Information Bulletin and made available on the IAU web site.

Each IAU ISYA will invite earlier Kavli Laureates as one main speaker at each International Schools for Young Astronomers. For all information material about the IAU ISYA, it will be stated that the school is sponsored by the Kavli Prize/the NASL.

12. UNESCO and the IAU on Astronomy and World Heritage. A new IAU Working Group

On 30 October 2008 a formal Memorandum of Understanding (MoU) was signed between the IAU and UNESCO at the UNESCO Headquarters in Paris, France, agreeing a number of ways in which the two organisations will work together to advance UNESCO's Astronomy and World Heritage Initiative <whc.unesco.org/en/activities/19> and ensure its full implementation. This initiative aims to ensure the recognition, promotion and preservation of achievements in science through the nomination to the World Heritage List (WHL) of properties whose outstanding significance to humankind derives in significant part from their connection with astronomy.

Following the signing, a new Working Group of Division XII / Commission 41 (*History of Astronomy*) has been set up, which is charged with fulfilling the IAU's commitments under the MoU.

The WG Terms of Reference are:

1. To work on behalf of the IAU to help ensure that cultural properties and artefacts significant in the development of astronomy, together with the intangible heritage of astronomy, are duly studied, protected and maintained, both for the greater benefit of humankind and to the potential benefit of future historical research.

(The range of properties and objects in question includes ancient sites and monuments with demonstrable links to the sky (such as Stonehenge), instruments of all ages, archives, and historical observatories.)

2. To fulfill, on behalf of the IAU, its commitments under the Memorandum of Understanding with UNESCO on Astronomy and World Heritage.

3. To liaise with other international and national bodies concerned with astronomical history and heritage, in so far as their interests and activities impinge on these aims, to help achieve these aims.

4. To work, in conjunction with IAU C41 (History of Astronomy), IAU C46 (Education) and other Commissions and Working Groups within the IAU as appropriate, to enhance public interest, understanding, and support in the field of astronomical heritage.

The first main task for the IAU WG is to work with the International Committee on Monuments and Sites (ICOMOS) to produce a global Thematic Study on astronomical heritage. This will provide the basis upon which UNESCO will produce criteria for judging WHL nominations relating to astronomy. Detailed work plan are being prepared with UNESCO and ICOMOS.

The Memorandum of Understanding is presented in Appendix V.

Karel A. van der Hucht
IAU General Secretary 2006-2009
Utrecht / Paris / Rio de Janeiro, 11 August 2009

APPENDIX I (ad Section 1.4.1)

United Nations General Assembly, sixty-second session, agenda item 56 (b)

Resolution adopted by the General Assembly

[on the report of the Second Committee (A/62/421/Add.2)]

62/200. International Year of Astronomy, 2009

The General Assembly,

Recalling its resolution 61/185 of 20 December 2006 on the proclamation of international years,

Aware that astronomy is one of the oldest basic sciences and that it has contributed and still contributes fundamentally to the evolution of other sciences and applications in a wide range of fields,

Recognizing that astronomical observations have profound implications for the development of science, philosophy, culture and the general conception of the universe,

Noting that, although there is a general interest in astronomy, it is often difficult for the general public to gain access to information and knowledge on the subject,

Conscious that each society has developed legends, myths and traditions concerning the sky, the planets and the stars which form part of its cultural heritage,

Welcoming resolution 33 C/25 adopted by the General Conference of the United Nations Educational, Scientific and Cultural Organization on 19 October 2005[†] to express its support for the declaration of 2009 as the International Year of Astronomy, with a view to highlighting the importance of astronomical sciences and their contribution to knowledge and development,

Noting that the International Astronomical Union has been supporting the initiative since 2003 and that it will act to grant the project the widest impact,

Convinced that the Year could play a crucial role, inter alia, in raising public awareness of the importance of astronomy and basic sciences for sustainable development, promoting access to the universal knowledge of fundamental science through the excitement generated by the subject of astronomy, supporting formal and informal science education in schools as well as through science centres and museums and other relevant means, stimulating a long-term increase in student enrolment in the fields of science and technology, and supporting scientific literacy,

1. *Decides* to declare 2009 the International Year of Astronomy;

2. *Designates* the United Nations Educational, Scientific and Cultural Organization as the lead agency and focal point for the Year, and invites it to organize, in this capacity, activities to be realized during the Year, in collaboration with other relevant entities of the United Nations system, the International Astronomical Union, the European Southern Observatory and astronomical societies and groups throughout the world, and, in this regard, notes that the activities of the Year will be funded from voluntary contributions, including from the private sector;

3. *Encourages* all Member States, the United Nations system and all other actors to take advantage of the Year to promote actions at all levels aimed at increasing awareness among the public of the importance of astronomical sciences and promoting widespread access to new knowledge and experiences of astronomical observation.

78th plenary meeting, 19 December 2007

[†] United Nations Educational, Scientific and Cultural Organization, Records of the General Conference, 33rd session, Paris, 3-21 October 2005, vol. 1: Resolutions, chap. V.

APPENDIX II (ad Section 8)

I. IAU – STATEMENT OF INCOME 2006 - 2008

I INCOME <i>BUDGET</i>	2006	2007	2008	2006 - '08	2009
	(CHF)	(CHF)	(CHF)	(CHF)	(CHF)
unit of contribution	3 580	3 685	3 800		3 910
adjustment for inflation	3.4%	3.0%	3.0%		3.0%
number of units	262	262	262		301.5
<hr/>					
A <u>ADHERING ORGANIZATIONS</u>					
A1 National Member dues	843 269 <i>937 960</i>	1 066 347 <i>965 470</i>	775 425 <i>995 600</i>	2 685 041 <i>2 899 030</i>	<i>1 178 865</i>
<hr/>					
B <u>GRANTS & REFUNDS</u>					
B1 GA related refunds		21 660		21 660	
B3 Symposia related refunds		772	26 649	27 421	
B4 ESO, grant for GA 2006	79 710			79 710	
B5 UN	6 050			6 050	
B6 Registration GA 2006	2 117			2 117	
sub-total GRANTS & REFUNDS	87 877	22 432	26 649	136 958	
<hr/>					
C <u>ROYALTIES</u>					
C2 CUP	...	70 762	55 638		
C3 Springer	...	646	538		
C4 other (e.g., National Geographic)			588		
sub-total ROYALTIES	54 281 <i>15 000</i>	71 407 <i>20 000</i>	56 764 <i>20 000</i>	182 452 <i>55 000</i>	<i>20 000</i>
<hr/>					
D <u>FUNDS IN TRANSIT</u>					
D1 IYA2009		74 050	281 329	355 379	
D2 NAS for GA2009 WiA Lunch			9 685	9 685	
D3 PPGF Fellowships	90 750	57 000	53 804	201 554	
sub-total FUNDS IN TRANSIT	90 750	131 050	344 818	566 618	
<hr/>					
E <u>ADMINISTRATIVE REFUNDS</u>					
Government Organizations		3 913		3 913	
ACCOR			443	443	
EROM			5 862	5 862	
Cash in Safe IAP			13 561	13 561	
Other			3 517	3 517	
sub-total ADMINISTRATIVE REFUNDS		3 913	23 383	27 296	
<hr/>					
F <u>BANK REVENUE</u>					
F2 Strategy Fund	16 619	2 712	2 675	22 006	
sub-total BANK REVENUE	16 619 <i>25 000</i>	2 712 <i>10 000</i>	2 675 <i>10 000</i>	22 006 <i>45 000</i>	<i>10 000</i>
<hr/>					
total INCOME	1 092 796	1 297 862	1 229 714	3 620 372	
G total INCOME minus 'In Transit'	1 002 046 <i>977 960</i>	1 166 812 <i>995 470</i>	884 896 <i>1 025 600</i>	3 053 754 <i>2 999 030</i>	<i>1 208 865</i>

II. IAU – STATEMENT OF EXPENDITURE 2006 - 2008

II	EXPENDITURE BUDGET	2006 (CHF)	2007 (CHF)	2008 (CHF)	2006 - '08 (CHF)	2009 (CHF)
M	<u>GENERAL ASSEMBLIES (GAs)</u>					
M1	<i>Preparation costs</i>	20 318 45 000	25 083 4 000	7 747 8 000	53 148 57 000	50 000
M2	<i>Grants GA incl. 6 Symposia</i>	523 316 440 000	-- --	-- --	523 316 440 000	385 000
	total GENERAL ASSEMBLIES	543 634 <i>485 000</i>	25 083 <i>4 000</i>	7 747 <i>8 000</i>	576 464 <i>497 000</i>	<i>435 000</i>
N	<u>SCIENTIFIC ACTIVITIES</u>					
N1	<i>Sponsored meetings</i>					
N1.1	Grants IAU Symposia outside GA	78 200 75 000	250 527 225 000	172 668 225 000	501 395 525 000	75 000
N1.2	Grants Regional IAU Meetings (RIMs)	-- --	29 000 30 000	52 477 30 000	81 477 60 000	--
N1.3	Co-sponsored meetings	--	27 644	2 092	29 736	
	<i>sub-total Sponsored meetings</i>	78 200 75 000	307 171 255 000	227 236 255 000	612 607 585 000	75 000
N2	<i>Working Groups</i>					
N2.1	EC Working Groups	8 484 7 000	-- 5 000	-- 5 000	8 484 17 000	5 000
N2.1.2	HNEOs – book (Rickman)	2 617	--	--	2 617	
N2.1.3	IYA2009 sponsoring and UN lobbying	-- --	50 363 2 000	49 125 2 000	99 488 4 000	8 000
N2.2	Commission Working Groups	3 594 7 000	-- 5 000	-- 5 000	3 594 17 000	5 000
N2.2.1	CB for Astronomical Telegrams (C6)	4 000 4 000	-- 4 000	4 000 4 000	8 000 12 000	4 000
N2.2.2	Minor Planet Center (DIII)	-- 8 000	16 000 12 000	12 000 12 000	28 000 32 000	12 000
N2.2.3	Meteor Data Center (C22)	8 000 1 500	-- 2 000	-- 2 000	8 000 5 500	2 000
N2.2.4	Astronomy & World Heritage (C41)	--	2 088	2 524	4 612	
N2.2.5	Planetary System Nomenclature (DIII)	--	--	1 756	1 756	
	<i>sub-total Working Groups</i>	26 695 27 500	68 451 30 000	68 451 30 000	164 551 87 500	36 000
	total SCIENTIFIC ACTIVITIES	104 895 <i>102 500</i>	375 622 <i>285 000</i>	296 641 <i>285 000</i>	777 158 <i>672 500</i>	<i>111 000</i>

Expenditure (cont'd)		2006	2007	2008	2006 - '08	2009
		(CHF)	(CHF)	(CHF)	(CHF)	(CHF)
O EDUCATIONAL ACTIVITIES (C46)						
O5	<i>PG Intern. Schools for Young Astronomers</i>	--	43 269	31 540	74 809	
		--	45 000	45 000	90 000	
O1	<i>PG Exchange of Astronomers</i>	11 537		8 066		
		15 000	15 000	15 000	45 000	15 000
O8	<i>PG Teaching for Astronomy Development</i>	20 134		33 439		
		45 000	45 000	45 000	135 000	45 000
O9	<i>PG World Wide Development of Astronomy</i>	4 598		5 138		
		10 000	15 000	15 000	40 000	15 000
	<i>sub-total PGs EA, TAD, WWDA</i>	36 269	55 512	46 643	138 424	
		70 000	75 000	75 000	220 000	75 000
O2	<i>PG Exchange of Books, Journals</i>	--	1 931	674	2 605	
O10	<i>C46 Brainstorm in Paris</i>	--	--	7 651	7 651	
O11	<i>co-sponsoring COSPAR CBWs</i>	--	1 693	5 000	6 693	
	total EDUCATIONAL ACTIVITIES	36 269	102 405	91 508	230 182	
		70 000	120 000	120 000	310 000	75 000
P FUNDS IN TRANSIT						
P1	<i>IYA2009 secretariat finances</i>	--	41 183	241 465	282 648	
P2	<i>PPGF Fellowships</i>	23 451	60 617	79 896	163 964	
P3	<i>NAS for GA2009 WiA Lunch</i>	--	--	11 388	11 388	
	total FUNDS IN TRANSIT	23 451	101 801	332 749	458 001	
Q COOPERATION WITH OTHER UNIONS						
Q1	<i>Delegates' travel</i>	10 978	8 606	5 564	25 148	
		10 000	12 000	12 000	34 000	12 000
Q2	<i>Dues to other Unions</i>					
Q2.1	ICSU	14 331	18 317	19 434	52 082	
		20 000	7 500	7 500	35 000	7 500
Q2.2	IERS/FAGS	--	2 500	3 138	5 638	
		7 500	10 000	10 000	27 500	10 000
Q2.3	IUCAF	--	7 500	3 332	10 832	
		7 500	7 500	7 500	22 500	7 500
	<i>sub-total Dues to other Unions</i>	14 331	28 317	25 904	68 552	
		35 000	25 000	25 000	85 000	25 000
	total COOP. WITH OTHER UNIONS	25 309	36 924	31 467	93 700	
		45 000	37 000	37 000	119 000	37 000

Expenditure (cont'd)		2006	2007	2008	2006 - '08	2009
		(CHF)	(CHF)	(CHF)	(CHF)	(CHF)
R	<u>EXECUTIVE COMMITTEE</u>					
R1	<i>Executive Committee Meetings</i>	87 961 60 000	54 458 45 000	53 505 80 000	195 924 185 000	80 000
R2	<i>Officers' Meetings</i>	19 418 5 500	17 900 12 000	11 859 12 000	49 177 29 500	12 000
R3	<i>Officers' expenditure (other)</i>					
R3.1	General Secretary expenditure					
R3.1.1	General Secretary – Paris		37 410	41 072		
R3.1.2	General Secretary – other		5 455	620		
	<i>sub-sub-total GS expenditure</i>	44 093 30 000	42 865 30 000	41 692 30 000	128 650 90 000	30 000
R3.2	President	-- 2 000	668 --	4 126 --	4 794 2 000	--
R3.3	President-elect	--	--	800	800	
R3.4	Assistant General Secretary	740 2 000	598 2 000	4 557 2 000	5 895 6 000	2 000
R3.5	FSC-chair visit to IAU Secretariat	--	--	1 191	1 191	
	<i>sub-total Officer's expenditure (other)</i>	44 833 34 000	44 131 32 000	52 365 32 000	141 329 98 000	32 000
R4	<i>Press-Office</i>		--	4 447	4 447	
	total EXECUTIVE COMMITTEE	152 212 99 500	116 489 89 000	122 176 124 000	390 877 312 500	124 000
S	<u>PUBLICATIONS</u>					
S1	<i>IAU Information Bulletins</i>	20 497 20 000	10 022 10 000	15 704 10 000	46 223 40 000	10 000
	total PUBLICATIONS	20 497 20 000	10 022 10 000	15 704 10 000	46 223 40 000	10 000

Expenditure (cont'd)		2006	2007	2008	2006 - '08	2009
		(CHF)	(CHF)	(CHF)	(CHF)	(CHF)
T	<u>ADMINISTRATION / SECRETARIAT</u>					
T1	<i>Salaries and Charges</i>					
T1.1	Salaries		93 893	128 897		
T1.2	Charges		34 922	68 704		
T1.3	Salary M.L.-O. CNRS		137 802	- 25 059		
	<i>sub-total Salaries and Charges</i>	239 709	266 618	172 542	678 869	
		175 000	250 000	250 000	675 000	250 000
T2	<i>Training Courses</i>	--	--	1 755	1 755	
		5 000	5 000	5 000	15 000	5 000
T3	<i>Outsourced Tasks</i>					
T3.1	Web/DB Development at ESO	--	37 122	61 598	98 720	
T3.2	Web Management at ESO	--	10 502	34 270	44 772	
T3.3	IT Assistance in Paris	22 433	- 1 617	1 087	21 903	
T3.4	Personnel Administration	--	1 789	2 385	4 174	
T3.5	Accounting	--	1 391	8 638	10 029	
T3.6	Auditing	11 726	1 969	1 744	15 439	
	<i>sub-total Outsourced Tasks</i>	34 159	51 155	109 722	195 036	
		2 500	2 500	2 500	7 500	2 500
T4	<i>General Office expenditure</i>					
T4.1	Post	11 187	3 855	6 496	21 538	
T4.2	Telephone and Internet	11 282	6 771	5 245	23 298	
T4.3	Rent (INSU / IAP)	7 967	5 963	5 693	19 623	
T4.4	IT Software	5 720	739	3 626	10 085	
T4.5	IT Hardware	2 814	9 900	2 365	15 079	
T4.6	Office Supplies	17 883	912	1 166	19 961	
T4.7	Books and CDs	--	222	--	222	
T4.8	Furniture and Locks	--	2 238	--	2 238	
T4.9	Contributions F&D IAP	--	1 443	685	2 128	
T4.10	Miscellaneous (flowers, gifts tips)	--	468	1 075	1 543	
	<i>sub-total General Office expenditure</i>	56 853	32 510	26 351	115 714	
		86 000	86 000	89 000	281 000	94 000
T5	<i>Bank Expenses</i>					
T5.1	Transaction Charges		7 561	7 917		
T5.2	Debit Interest		2 715	76		
	<i>sub-total Bank Expenses</i>	8 813	10 275	7 993	27 081	
		4 000	4 000	4 000	4 000	4 000
T6	<i>Other</i>	[appr. 55 000]	55 772	--	55 772	
	total ADMIN./SECRETARIAT	339 534	416 329	318 362	1 074 226	
		268 500	343 500	346 500	958 500	351 500

Expenditure (cont'd)	2006	2007	2008	2006 - '08	2009
	(CHF)	(CHF)	(CHF)	(CHF)	(CHF)
total EXPENDITURE	1 246 267	1 184 676	1 216 354	3 647 297	
V total EXP. minus 'In Transit'	1 222 816 <i>1 090 500</i>	1 082 875 <i>888 500</i>	883 605 <i>930 500</i>	3 189 296 <i>2 909 500</i>	<i>1 143 500</i>
INCOME OVER EXPENDITURE	- 220 770 <i>- 112 540</i>	+ 83 937 <i>+ 106 970</i>	+ 1 291 <i>+ 226 200</i>	- 135 542 <i>+ 220 630</i>	<i>+ 65 365</i>
TOTAL ASSETS	1 041 788	1 247 590	1 395 828		

APPENDIX III (ad Section 10)**First Amended Agreement on Collaboration Between****The Peter Gruber Foundation and The International Astronomical Union****Preamble**

In pursuance of their common goal to promote the public awareness and recognition of the achievements in the field of Cosmology in a broad sense and further the development of the field in the future, the Peter Gruber Foundation (PGF), located in St. Thomas, U.S. Virgin Islands (P.O. Box 503210, St. Thomas, VI 00805), and the International Astronomical Union (IAU), headquartered in Paris, France (98 bis Boulevard Arago, 75014 Paris, France), hereby agree to collaborate on the announcement and award of the Cosmology Prize of the Peter Gruber Foundation. The content and form of this collaboration are defined in the following.

The Cosmology Prize

The Cosmology Prize of the PGF is awarded annually for scientists or institutional groups of any nationality to honor the most distinguished work in the fields of astronomy, physics, mathematics, and philosophy. The Prize consists of a medal and a cash sum of USD \$500,000.00. Nominations may be submitted by individuals, organizations, and institutions that have experience in and an appreciation for the study of cosmology and modern cosmological research. Nominations are received and prize recipients are selected by an international Advisory Board (composed as described below), with the advice and consent of the directors of the PGF, so as, among other things, to insure compliance with the PGF Articles of Incorporation and U.S. laws (including, but not limited to, the Internal Revenue Code) and regulations relating to foundation activities.

Advisory Board

The Advisory Board for the Cosmology Prize of the PGF will be composed of seven distinguished scientists representing the field of cosmology. Members are appointed for three-years periods, renewable once, and serve on the Board in their personal capacity only. Three members will be nominated by the IAU and one each by International Union of Pure and Applied Physics (IUPAP), the International Mathematical Union (IMU), and the International Union of the History and Philosophy of Science (IUHPS). The seventh member will be selected by these six individuals.

Award of the Prize

In the years of the IAU General Assembly, beginning in 2003, the Cosmology Prize will be presented at the IAU General Assembly. In non-General Assembly years, the Prize will be awarded in locations of importance in the history of cosmology, and where the event could have a positive impact on the further development of the field. Representatives of the four scientific Unions will be invited to all events.

The Peter Gruber Foundation Fellowships

In order to allow promising young scientists of any nationality to pursue education and research at a center of excellence in their field, the PGF will support fellowships each three years. The total amount of support per three-year period will be US \$150,000 beginning in 2007. Appropriate procedures for the announcement and award of the fellowships will be developed by the IAU and the PGF, including provision for the advice and consent of the directors of the PGF, so as to insure compliance with the PGF Articles of Incorporation and U.S. laws (including, but not limited to, the Internal Revenue Code) and regulations relating to foundation activities.

Amendment of Termination of the Agreement

Either party to this Agreement may propose amendments to it or announce their intention to terminate it by written notification to the other party at any time. For a proposed amendment to be adopted, both parties must so agree. Failure of the parties to reach agreement on a proposed amendment or termination within one year of its notification will force the termination of this Agreement.

Implementation of the Agreement

This Agreement will enter into force when signed by the duly authorized representatives of the PGF and the IAU. This agreement supersedes all prior agreements. Announcements and application information for the Prize and the Fellowships will be published in the IAU Information bulletin for January of each year, beginning in January 2007, and be made available on-line at the IAU web site.

Collaborating Unions:

The parties to this Agreement are pleased to invite the international unions IUPAP, IMU, and IUHPS to join their collaboration on the award of the Cosmology Prize as described above. These Unions are invited to add their signatures below to confirm their interest and willingness to join this collaboration.

International Union of Pure and Applied Physics
c/o American Physical Society, 1 Physics Ellipse, College Park, MD 20740, USA

International Mathematical Union
Institute for Advanced Study, Olden Lane, Princeton, NJ 08540-0631, USA

International Union of the History and Philosophy of Science
Centre d'Histoire des Sciences, Université de Liège, 5 Avenues des Tilleuls, B-4000 Liège, Belgium

Signed by Karel A. van der Hucht, IAU General Secretary
Paris, February 2007

APPENDIX IV (ad Section 11)**Agreement between the Norwegian Academy of Science and Letters and the International Astronomical Union**

In pursuance of their common goal to promote the public awareness and recognition of outstanding achievements in the science of astrophysics in the broader sense, and to promote the development of astrophysical research in the future,

- the Norwegian Academy of Science and Letters (The Academy, residing at Drammensveien 78, N-0271 Oslo, Norway), and
- the International Astronomical Union (IAU, headquartered at 98-bis, Boulevard Arago, F-75014 Paris, France)

hereby agree to collaborate on selection of the Prize Committee, the announcement of the Kavli Prize in Astrophysics and the IAU International Schools for Young Astronomers. The content and form of this cooperation are defined in the following.

The Kavli Prize in Astrophysics

The Kavli Prize in Astrophysics is awarded every second year to one or more scientists for outstanding achievement in advancing our knowledge and understanding of the origin, evolution, and properties of the universe, including the fields of cosmology, astrophysics, astronomy, planetary science, solar physics, space science, astrobiology, astronomical and astrophysical instrumentation, and particle astrophysics. The Kavli Prize consists of a gold medal, a cash sum of US\$ 1 000 000.-, and a scroll. Nominations may be submitted by all who wish to nominate candidates, with the exception that self-nominations are not accepted. Nominations are received by the Academy. The Kavli Prize recipients are selected by an international Prize Committee, composed as described below.

The Prize Committee

The Prize Committee is composed of five distinguished scientists representing different fields in astrophysics. The Norwegian Academy of Science and Letters appoints the Committee on the basis of suggestions from leading international academies and other equivalent scientific organizations. These organisations are:

The Max Planck Society (Germany)
The National Academy of Sciences (US)
The Norwegian Academy of Science and Letters
The Royal Society (UK)

After receiving suggestions from these organisations, The Norwegian Academy of Science and Letters will seek the advice by the International Astronomical Union in order to establish a balanced committee with respect to the various fields of Astrophysics.

The Officers of the International Astronomical Union together with the Chair of the Prize Committee will work out a proposal to the Academies Board.

Announcement and award of the Prize

Announcement and nomination information of the Prize are the Academies responsibility, and the Academy will seek advice from the Kavli Foundation and the IAU. IAU

will publish the Announcement in its IAU Information Bulletin and on its web site. The Prize will be awarded in September in Oslo, Norway. Representatives of the IAU will be invited to the Kavli Prize in Astrophysics Award Ceremony.

IAU International Schools for Young Astronomers

For the benefit of countries and their regions that need support in development of astrophysical education and research, the Academy will support one IAU International School for Astronomy (ISYA) every year, beginning in 2009. The total amount of financial support by the Academy per year is US\$ 30 000.-. The curriculum for an IAU ISYA will be determined by the IAU Division XII / Commission 46 Program Group for a ISYAs, together with the Local Organizer of the ISYA, and will be overseen by the IAU Vice-President in charge of IAU educational programs. Appropriate procedures for the announcement of the IAU ISYAs will be developed by the Academy and the IAU. Announcement and application information for the IAU ISYAs will be published in the IAU Information Bulletin and will be made available on the IAU web site.

The IAU ISYA should invite earlier Kavli Laureates as one main speaker at each International Schools for Young Astronomers, and for all information material about the IAU ISYA it should be stated the school is sponsored by the Kavli Prize/the Academy.

Amendment of termination of the Agreement

Parties to this Agreement may propose amendments to it, or announce their intention to terminate it by written notification to the other party at any time. For a proposed amendment to be adopted, all parties must so agree. Failure of the parties to reach agreement on a proposed amendment or termination within one year of its notification will force the termination of this Agreement.

Implementation of the Agreement

This Agreement will enter into force when signed by the authorized representatives of the Academy and the IAU. This agreement supersedes all prior agreements. This Agreement is not intended to create legal obligations on any of the signatories. In the event of a dispute over the application of the terms of this Agreement, the matter shall be put to the President of the Academy, and the President of the IAU, who shall determine the process for resolution of the dispute. This Agreement is subject to Norwegian law.

For the Norwegian Academy of Sciences and Letters
Prof. Ole Didrik Laerum, president

For the International Astronomical Union
Dr. Catherine J. Cesarsky, president

Signed: Oslo, 29 May 2008

APPENDIX V (ad Section 12)

**Memorandum of Understanding between the IAU and UNESCO
on Astronomy and World Heritage**

The International Astronomical Union, hereinafter referred to as “IAU”,

and

The United Nations Educational, Scientific and Cultural Organization, hereinafter referred to as “UNESCO”

UNESCO and IAU being referred to hereinafter as “the Parties”

PREAMBLE**Whereas**

UNESCO’s mission, in implementing the 1972 *Convention concerning the protection of the world cultural and natural heritage* (the *World Heritage Convention*), is to identify, protect and transmit to future generations the natural and cultural heritage properties inscribed on the World Heritage List and List of World Heritage in Danger,

Whereas

UNESCO is seeking support from civil society for the achievement of its strategic objectives and programme priorities,

Whereas

IAU’s mission is to promote and safeguard the science of astronomy in all its aspects through international cooperation that includes promotion of its history, engaging people worldwide in scientific field research and educational activities,

In consideration of the foregoing premises, the Partners hereby agree to co-operate as follows:

Article 1 – Objectives of the Initiative

By the present Memorandum of Understanding, the Parties confirm their commitment to promote the *World Heritage Convention* and in particular to explore and to implement the

Astronomy and World Heritage” Initiative. This Initiative aims to the recognition, promotion and preservation of achievements in science through the nomination of the properties whose outstanding significance derives in significant part from their connection with science, in particular astronomy.

The Parties hereby agree on the activities which they will respectively and jointly undertake, in order to explore and develop the feasibility, viability and impact of this Initiative, as well as on the principal conditions and modalities whereby these activities would be carried out.

Article 2 – Development of the Content of the Initiative

2.1. The Parties shall work together to develop and implement a joint programme of activities focused on the following three areas of cooperation:

1. research: to provide experts who will assist with sites identification and inventory, as well as for given World Heritage properties included on the State Parties' Tentative Lists, will provide assistance for monitoring activities, data collection, the preparation of nomination files, the development of management plans, and related activities;

2. education: to build the capacities of World Heritage property managers and enlarge their experience through fellowship programmes;

3. promotion: to provide institutional partners who will assist with development of the data base, as well as public web pages created within the framework of the Initiative;

4. partnerships: to create tri-partite partnerships between the Parties and others, including private sector entities, in order to gather enough financial support to implement the Initiative.

2.2. The Parties shall decide on the nature of the projects which will be implemented within the framework of the Thematic Initiative "Astronomy and World Heritage" upon mutual agreement.

Article 3 – Responsibilities

3.1. Responsibilities of UNESCO

UNESCO commits itself to ensure the implementation of the Thematic Initiative "Astronomy and World Heritage" worldwide, in agreement and co-operation with the national authorities dealing with natural and cultural heritage in the States Parties to the World heritage Convention;

UNESCO commits itself to respect the architectural, cultural, natural and historic authenticity of properties in accordance with the World Heritage Convention, the Operational Guidelines and the relevant expert reports;

There will be no financial obligation for UNESCO in respect of any given Project developed within the framework of the Initiative, until the corresponding funds for such Project have been identified and received by UNESCO from an appropriate donor.

3.2. Responsibilities of IAU

IAU commits itself to assist UNESCO in the implementation of the Thematic Initiative "Astronomy and World Heritage" worldwide;

IAU commits itself to provide, through its bodies, the scientific expertise in the field of Astronomy required for the implementation of the Thematic Initiative "Astronomy and World Heritage" worldwide;

IAU commits itself into ensuring, through its bodies, the development of the DataBase of the Thematic Initiative “Astronomy and World Heritage” created on the website of the UNESCO World Heritage Centre within the support of the Royal Astronomical Society of the United Kingdom. All rights to the website and its content, including intellectual property rights, shall belong to UNESCO;

IAU commits itself into respecting the historic and scientific authenticity of properties in accordance with the relevant expert reports and into bringing the scientific expertise to the Thematic Initiative “Astronomy and World Heritage” worldwide;

There will be no financial obligation placed on IAU for a given Project to be developed within the framework of the Initiative.

Article 4 – Conditions and Modalities

4.1. IAU shall keep UNESCO informed of any promotional and fund-raising opportunities and shall not develop any part of this Initiative without the involvement and prior written approval of UNESCO. Such written approval shall be promptly considered and not to be unreasonably withheld.

4.2. In the event that projects are identified with corresponding funding and the Parties agree to develop it, the donors identified as contributors for such projects will need to be signatory to any Agreements developed in this context. The recognized donors shall not be granted the right to use the names and emblems of UNESCO and World Heritage until appropriate modalities of cooperation between UNESCO and potential contributors are established. Granting of the right to use the name and emblems of UNESCO World Heritage shall, in any case, be done in accordance with UNESCO rules and through specific subsequent instruments that set out the purpose and scope of the right to use the name and logo.

4.3. The Parties will closely consult with relevant governmental authorities at all phases of the Initiative.

4.4. The Parties agree to confer and develop working methods and formal processes for the implementation of these activities and to present their proposals for review and approval by both Parties no later than 6 months after the entry into force of this Memorandum of Understanding.

4.5. The present Memorandum of Understanding can be amended, at any time, upon the formal request by one of the Parties and written confirmation of the other party.

4.6. UNESCO’s undertakings and activities with regard to the Initiative shall be governed by its relevant rules and procedures.

Article 5 – Scope

Territory: Worldwide

Article 6 – Duration

The present Memorandum of Understanding will take effect upon signature by both Parties. The Memorandum of Understanding is effective for the term of two (2) years from the date of signature by the Parties, and thereafter may be extended by written consent of the Parties for two (2) additional years on the basis of an evaluation undertaken by the Parties at the end of the initial term.

Article 7 – Termination

Either Party shall be entitled to terminate, with immediate effect, the Memorandum of Understanding, by giving notice in writing to that effect to the other Party in any of the following circumstances:

- a) if either Party is unable, due to circumstances beyond its control, to continue to carry out its obligations in terms of the Memorandum of Understanding;
- b) if the other Party breaches the terms of the Memorandum of Understanding.

The present Memorandum of Understanding may not be waived, modified or changed in any manner except by a written amendment signed by each of the Parties hereto.

The present Memorandum of Understanding is concluded *intuitu personae*. Therefore, it may not be assigned nor transferred in any case.

It is understood that this Memorandum of Understanding does not confer IAU any exclusivity regarding activities such as those covered by this Memorandum of Understanding and IAU accepts that UNESCO is currently collaborating on similar activities worldwide with other partners.

Article 8 - Notification

Any notification addressed to one of the Partners will be made preliminarily by fax and confirmed by mail to the following address:

For UNESCO 7, place de Fontenoy
 F-75352 Paris 07 SP France
 To: Director of the World Heritage Centre
 Fax: (331) 45 68 55 70

For IAU 98bis, boulevard Arago
 F-75014 Paris
 France
 To: IAU General Secretary
 Fax. (331) 43 25 26 16

Article 9 – Use of UNESCO and WHC Names, Emblems, Logos or Official Seals

IAU is entitled to be considered an ‘official partner of UNESCO’s World Heritage Centre’. However, IAU shall not be granted the use of the names, abbreviations, emblems,

logos and/or official seals of UNESCO and the World Heritage in the Initiative unless UNESCO has approved a written request from IAU. Each request, including a narrative and visual proposal, shall be made by IAU and UNESCO shall do its utmost to respond within 10 working days. Proof of all materials produced with UNESCO's name(s) and/or emblems(s) shall be provided, once authorized by UNESCO, and produced by IAU to UNESCO for reporting purposes.

*Concluded in two original copies in the English language, on 30 October 2008,
at UNESCO Headquarters, Paris*

For the International Astronomical Union

For the United Nations Educational,
Scientific and Cultural Organization

Karel A. VAN DER HUCHT
General Secretary

Kichiro MATSUURA
Director-General