

Part 1

Introduction

Opening Remarks

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Distinguished Ladies and Gentlemen, dear Colleagues,

On behalf of the United Nations Office for Outer Space Affairs, I am very pleased to welcome all of you at the United Nations Office Vienna for convening the IAU/COSPAR/UN Special Environmental Symposium entitled "Preserving the Astronomical Sky".

The decision of the International Astronomical Union (IAU) to organize this Symposium as an integral part of UNISPACE III [1] was first conveyed to the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) in February 1998. The idea for holding such a Symposium was born during the deliberations of the XXIIIrd General Assembly of the IAU at Kyoto, Japan, in 1997. Since that time, the Office for Outer Space Affairs of the United Nations has worked very closely with the IAU to develop an appropriate programme for this Symposium and to prepare the necessary logistics for your participation. In this connection, it has been a great pleasure for the Office for Outer Space Affairs to have worked closely on a continuing basis, on all aspects of this Symposium, with the following individuals:

1. Dr. Johannes Andersen, General Secretary of the International Astronomical Union;
2. Dr. David Crawford, Executive Director of the International Dark-Sky Association;
3. Dr. Woodruff T. Sullivan III; Chairman of the IAU Commission 50: Protection of Existing and Potential Observatory Sites; and
4. Dr. Michel Breger, Director of the Institute of Astronomy at the University of Vienna.

The United Nations Office for Outer Space Affairs is very pleased to have worked hand-in-hand with these distinguished individuals.

We offer our special thanks to the many co-organizers of this Symposium and their representatives, who have come to participate in and contribute to the Symposium.

[Applause]

Distinguished Ladies and Gentlemen, Colleagues,

There are at least three remarkable facts related to this Symposium which I would like to address briefly: the first concerning astronomy in general; the second exploring the cooperation between the United Nations and the International Astronomical Union; and the third focusing on Unispace III and IAU Symposium 196.

1. Astronomy

Education and research in astronomy are international enterprises and the astronomical community has long shown leadership in creating international collaboration, dating back to a network of comet observers established by Newton and Halley in the 17th century. The International Astronomical Union was the first of the modern international scientific unions organized under the Versailles treaty.

Further

- Astronomy has deep roots in virtually every human culture;
- It helps us to understand humanity's place in the vast scale of the Universe; and
- It increases the knowledge of humanity about its origins and evolution.

However, as stated in the IAU Press Release for this Symposium [2, 3],

“astronomy, a science that has been a leading engine of human progress since ancient times, now finds itself increasingly at risk from a new type of environmental degradation - that of space itself”.

The participants of this Symposium, coming from around the world, are now gathering for the first time at the United Nations to discuss the threats of light pollution, radio interference and space debris to their research.

You are the specialists to undertake an assessment of the adverse environmental impacts on astronomy. This is the prime reason for calling this Symposium. I will not address this matter further at this point in time.

2. The United Nations and the International Astronomical Union

First contact between the UN Office for Outer Space Affairs and the International Astronomical Union regarding closer cooperation was established in 1989; at that time Dr. Derek McNally was the General Secretary of IAU.

In 1991 the UN Office for Outer Space Affairs, through its Programme on Space Applications, initiated the organization of annual United Nations/European Space Agency Workshops on Basic Space Science for the benefit of developing countries in all major economic regions on Earth [4]. The term ‘basic space science’ subsumes astronomy and planetary exploration, which are two agenda items of the UN COPUOS. While these Workshops are designed to provide a

forum for basic space scientists to inform each other of their research findings, a number of those scientists addressed the issue of adverse environmental impacts on astronomy already at the first Workshop in 1991. Participants of these Workshops soon started exploring opportunities to inform Member States of the United Nations about adverse environmental impacts on astronomy.

In 1995 the IAU was granted observer status in COPUOS and in the period of time from 1994 to 1997, Dr. Derek McNally addressed the Member States, represented in the Scientific and Technical Subcommittee of COPUOS, on an annual basis about adverse environmental impacts on astronomy [5-8]. In 1998 and 1999 Dr. Johannes Andersen, presiding General Secretary of IAU, took the floor in the Scientific and Technical Subcommittee of COPUOS to initiate further communication with representatives of UN Member States of COPUOS by bringing the astronomical community to UNISPACE III to elaborate on the pressing issue of light pollution and radio interference in astronomical research [9,10].

Having said this, I am taking the opportunity to recall that one of the distinguished participants of this Symposium, Dr. L. Perek from the Czech Republic, served as General Secretary of the IAU from 1967 to 1970 and as Director of the United Nations Office for Outer Space Affairs from 1975-1980 [11].

3. UNISPACE III and IAU Symposium 196

The International Astronomical Union has chosen to organize this Symposium as part of the Technical Forum of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space [12]. This Conference is convened as a special session of COPUOS open to all Member States of the United Nations. The justification for holding this Symposium at UNISPACE III is that it is the first astronomical activity ever that has the opportunity to address the 185 Member States of the United Nations and representatives of space industry on the issue of adverse environmental impacts on astronomy in the most direct way.

In the period of time from 19 to 30 July 1999 representatives of Governments will gather in the core meetings of UNISPACE III: Committee I, Committee II and the Plenary. At that point in time, the General Secretary of the IAU, Dr. Johannes Andersen, will have the opportunity to inform Member States about the “conclusions and/or proposals” emanating from the Symposium “Preserving the Astronomical Sky”. The draft “conclusions and/or proposals”, prepared by the Secretariat of the IAU for this Symposium, are before you, distinguished participants, and it is now your responsibility to finalize them for transfer to the UNISPACE III core meetings, where Member States will consider them. It is too early to predict how your “conclusions and/or proposals” will be reflected in the final report of UNISPACE III, adopted by Member States. I would like to recall that the Committee on the Peaceful Uses of Outer Space works on the basis of consensus [12]. However, I should also mention that all concerns of the IAU in COPUOS to date have been reflected in United Nations documents issued by this body [5-10, 12].

It is my hope and belief that over the next five days you will get to know one another better, increase your cooperation on the issue of preserving the

astronomical sky, and return home ready to use your knowledge and experience, gained at the United Nations, to address this issue in your respective countries and organizations.

Ladies and gentlemen, it is in this context that I take this opportunity to wish you all very successful deliberations in the days ahead. Again, welcome to the United Nations; please feel at home - it is your organization.

Thank you for your attention.

References

- [1] Abstract of the Paper of the International Astronomical Union for UNISPACE III (A/CONF.184/AB/NGO/1)
- [2] Press Release of the IAU: Astronomy at Risk from Space Environment Degradation, <http://www.iau.org/sym196pr.html>
- [3] International Dark-Sky Association, <http://www.darksky.org/ida/iau196/>
- [4] UN/ESA Workshops on Basic Space Science, 1991-1999, <http://www.seas.columbia.edu/ah297/un-esa>
- [5] Scientific and Technical Presentations to the Scientific and Technical Subcommittee of COPUOS at its Thirty-first Session, Vienna, 21-22 February 1994 (A/AC.105/574)
- [6] Scientific and Technical Presentations to the Scientific and Technical Subcommittee of COPUOS at its Thirty-second Session, Vienna, 6-7 February 1995 (A/AC.105/606)
- [7] Scientific and Technical Presentations to the Scientific and Technical Subcommittee of COPUOS, Vienna, 12-13 February 1996 (A/AC.105/638)
- [8] Scientific and Technical Presentations to the Scientific and Technical Subcommittee of COPUOS at its Thirty-fourth Session, Vienna, 17-18 February 1997 (A/AC.105/673)
- [9] Report of the Scientific and Technical Subcommittee of COPUOS on the Work of its Thirty-fifth Session, Vienna, 9-20 February 1998 (A/AC.105/697)
- [10] Report of the Scientific and Technical Subcommittee of COPUOS on the Work of its Thirty-sixth Session, Vienna, 22-26 February 1999 (A/AC.105/719)
- [11] A. Blaauw 1994 History of the IAU - The Birth and First Half-Century of the International Astronomical Union, Kluwer Academic Publishers, Dordrecht
- [12] Draft Report of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space, Vienna, 19-30 July 1999 (A/CONF.184/3)