



**Office for Outer Space Affairs**  
United Nations Office at Vienna



# **UN Committee on the Peaceful Uses of Outer Space**

## **UN Office for Outer Space Affairs**

### **A Brief Overview**

**UN/BSS Science Organizing Committee Planning Meeting**

Goddard Space Flight Center

Greenbelt MD, USA

19-21 October 2004

*<http://ihy.gsfc.nasa.gov/events/unbss.shtml>*





# United Nations Office for Outer Space Affairs

- × **Main functions:**
  - × Secretariat for Committee on the Peaceful Uses of Outer Space (COPUOS) and its two Subcommittees
  - × Implements the United Nations Programme on Space Applications
  - × Secretariat for the Inter-Agency Meeting
  - × Executive secretariat for the three United Nations Conferences on the Exploration and Use of Outer Space (UNISPACE I, 82 and III)
- × **Legislative bodies:**
  - × General Assembly (Fourth Committee)
  - × Committee on the Peaceful Uses of Outer Space





## **United Nations Office for Outer Space Affairs (cont.)**

- × **Goals of the Office:**
  - × To promote international cooperation in the use of space technology for sustainable economic and social development and for the protection and management of the Earth's environment
  - × To assist in the establishment of a legal and regulatory framework governing space activities
  - × To contribute to the implementation of the recommendations of United Nations global conferences (Rio de Janeiro, 1992; Yokohama, 1994, UNISPACE III, Vienna, July, 1999)
  - × To strengthen the capacity of developing countries to use space technology





## United Nations Office for Outer Space Affairs (cont.)

- × **Organization of the Office for Outer Space Affairs:**
  - × Office of the Director
  - × Committee Services and Research Section (CSRS)
  - × Space Applications Section (SAS)
  
- × **Staff of the Office for Outer Space Affairs**
  - × 20 Staff (scientists, lawyers, political scientists)
  - × 1 Associate Expert (Italy)





# United Nations Office for Outer Space Affairs (cont.)

## Committee Services and Research Section

- × Provides substantive secretariat services to COPUOS, Scientific and Technical Subcommittee, Legal Subcommittee, Inter-Agency Meeting and the 4<sup>th</sup> Committee of the General Assembly on the item dealing with international cooperation on the peaceful uses of outer space
- × Prepares scientific and legal studies for the inter-governmental bodies
- × Prepares background and policy reports for consideration by the Committee and its Subcommittees
- × Maintains, on behalf of the Secretary-General, a UN Registry of Objects Launched into Outer Space and searchable Index to the Registry, available on Internet
- × Maintains the International Space Information Service which has been established at the Office according to the recommendations of UNISPACE 82 Conference
- × Maintains a webpage on the INTERNET: <http://www.oosa.unvienna.org>





## Committee on the Peaceful Uses of Outer Space Establishment

- x **Set up by the General Assembly in 1959 (resolution 1472 (XIV))**

To review the scope of international cooperation in peaceful uses of outer space, to devise programmes in this field to be undertaken under United Nations auspices, to encourage continued research and the dissemination of information on outer space matters, and to study legal problems arising from the exploration of outer space.





# Committee on the Peaceful Uses of Outer Space

## Membership

- × **Original membership: 24 States**
- × **Several enlargements, maintaining approximate regional balance**
- × **Currently 65 States**

Albania	Greece	Poland
Algeria	Hungary	Portugal
Argentina	India	Republic of Korea
Australia	Indonesia	Romania
Austria	Iran (Islamic Republic of)	Russian Federation
Belgium	Iraq	Saudi Arabia
Benin	Italy	Senegal
Brazil	Japan	Sierra Leone
Bulgaria	Kazakhstan	Slovakia
Burkina Faso	Kenya	South Africa
Cameroon	Lebanon	Spain
Canada	Malaysia	Sudan
Chad	Mexico	Sweden
Chile	Mongolia	Syrian Arab Republic
China	Morocco	Turkey
Colombia	Netherlands	Ukraine
Cuba	Nicaragua	United Kingdom of Great Britain and Northern Ireland
Czech Republic	Niger	United States of America
Ecuador	Nigeria	Uruguay
Egypt	Pakistan	Venezuela
France	Peru	Viet Nam
Germany	Philippines	





# Committee on the Peaceful Uses of Outer Space Observers

- × **Intergovernmental organizations**
  - × European Space Agency (ESA)
  - × International Mobile Satellite Organization (IMSO)
  - × International Telecommunications Satellite Organization (ITSO)
  - × Intersputnik
  - × Regional Centre for Remote Sensing of North African States (CRTEAN)
  
- × **Non-governmental organizations**
  - × Association of Space Explorers (ASE)
  - × Committee on Earth Observation Satellites (CEOS)
  - × Committee on Space Research (COSPAR)
  - × European Association for the International Space Year (EURISY)
  - × International Academy of Astronautics (IAA)
  - × International Astronautical Federation (IAF)
  - × International Astronomical Union (IAU)
  - × International Law Association (ILA)
  - × International Institute for Applied Systems Analysis (IIASA)
  - × International Society for Photogrammetry and Remote Sensing (ISPRS)
  - × International Space University (ISU)
  - × National Space Society (NSS)
  - × Space Generation Advisory Council (SGAC)
  - × Spaceweek International Association
  - × The Planetary Society (TPS)





# Committee on the Peaceful Uses of Outer Space

## Major Achievements

- × **Five United Nations Treaties**
  - × ***Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, 1967 (97 ratifications/27 signatures)***; [any objects carrying nuclear or any other kinds of weapons of mass destruction not to be placed in orbit around the Earth; the Moon and other celestial b. exclusively for peaceful purposes; outer space, incl. Moon and other celestial b. is not subject to national appropriation by any means; astronauts are envoys of mankind]
  - × ***Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, 1968 (88/25)***; [assistance in search and rescue; safe and prompt return to representatives of launching authority]
  - × ***Convention on International Liability for Damage Caused by Space Objects, 1972 (82/26)***; [launching State absolutely liable to pay compensation for damage]
  - × ***Convention on Registration of Objects Launched into Outer Space, 1975 (44/4)***; [establishment of national registry + SG Register; retain jurisdiction and control over object while in outer space or on a celestial body...or return to the Earth]
  - × ***Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, 1979 (10/5)***; [freedom of scientific exploration; exploration and use of the Moon shall be the province of all mankind; the Moon and its natural resources are the common heritage of mankind]





# Committee on the Peaceful Uses of Outer Space

## Major Achievements (cont.)

- x **Five sets of Principles on Outer Space**
  - x *Declaration of Legal Principles Governing the Activities of States in the Exploration and Uses of Outer Space (1963);*
  - x *Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting (1982);*
  - x *Principles Relating to Remote Sensing of the Earth from Outer Space (1986);*
  - x *Principles Relevant to the Use of Nuclear Power Sources in Outer Space (1992);*
  - x *Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interests of All States, Taking into Particular Account the Needs of Developing Countries (1996).*





## Committee on the Peaceful Uses of Outer Space Major Achievements (cont.)

- × **Three United Nations Conferences on the Peaceful Uses and Exploration of Outer Space**
  - × **UNISPACE I (1968)**
  - × **UNISPACE 82 (1982)**
    - × **Enhancement of the Programme on Space Applications**
  - × **UNISPACE III (19-30 July 1999)**
    - × **Establishment of 12 Action Teams to address the recommendations of the Conference**
    - × **Review by General Assembly in 2004 of the progress made in implementation of the recommendations**





# Committee on the Peaceful Uses of Outer Space (cont.)

**Current Chairman in 2004: Adigun Abiodun (Nigeria)**

- × **The forty-seventh session was held in Vienna in June 2004, next session 8 - 17 June 2005.**
  
- × **Substantive items discussed in 2004:**
  - × Ways and means of maintaining outer space for peaceful purposes
  - × Implementation of the recommendations of UNISPACE III
  - × Reports of the Scientific & Technical and Legal Subcommittees;
  - × Spin-off benefits of space technology: review of current status;
  - × Space and water;
  - × Other matters (composition of the bureaux, membership of the Committee, observer status)
  
- × **New item to be discussed in 2005:**
  - × Space and archaeology





## Implementation of the UNISPACE III Recommendations

### 5-year review in 2004:

- × **General Assembly to review and appraise implementation of UNISPACE III recommendations and consider further action and initiatives at its 59th session**
- × **COPUOS to prepare a report to the Assembly for its review**
- × **Information for the report comes from Member States, UN entities, organizations having permanent observer status with COPUOS and action teams**





## Implementation of the UNISPACE III Recommendations

- x **12 Action Teams**
- x **Established by COPUOS at its 44th (2001) and 46th (2003) sessions**
  - x **Worldwide environmental monitoring strategy (#1)**
  - x **Earth's natural resources (#2)**
  - x **Weather and climate forecasting (#4)**
  - x **Public health services (#6)**
  - x **Natural disaster mitigation, relief and prevention (#7)**
  - x **Knowledge-sharing (#9)**
  - x **Space-based navigation and positioning systems (#10)**
  - x **Sustainable development (#11)**
  - x **Near-Earth objects (#14)**
  - x **Capacity-building (#17)**
  - x **Increasing awareness (#18)**
  - x **Sources of financing (#32)**





## Implementation of the UNISPACE III Recommendations

- × **COPUOS report to Assembly**  
(to be presented in October 2004)

### Will include the following topics:

- × Background and result of UNISPACE III
- × Mechanisms for implementing the recommendations of UNISPACE III
- × Progress achieved in implementing recommendations
- × Synergies between implementation of UNISPACE III recommendations and results of global conferences
- × Assessment of implementation process of UNISPACE III recommendations
- × The way ahead (action to be taken, recommendations and suggestions for further implementation)



## Scientific and Technical Subcommittee

**Current Chairman in 2004: Dumitru Prunariu (Romania)**

- × **The forty-first session was held in Vienna in February 2004, next session: 21 February-4 March 2005.**
  
- × **Regular items discussed by Subcommittee:**
  - × **United Nations Programme on Space Applications**
  
  - × **Implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III)**
  
  - × **Matters relating to remote sensing of the Earth by satellites, including applications for developing countries and monitoring of the Earth's environment**







## Scientific and Technical Subcommittee (cont.)

- × **Items considered under work plans in 2004:**
  - × **Space debris**
    - × 2004: Member States continued to review the IADC proposals, possible S&T endorsement of their implementation on voluntary basis through national mechanisms
  - × **Use of nuclear power sources in outer space**
    - × 2004: Continue the work outlined in the work plan (various actions)
  - × **Space-systems-based telemedicine**
    - × New work plan started in 2004
    - × Member States to present information on the status of telemedicine applications; Presentations on commercially available telemedicine systems





## Scientific and Technical Subcommittee (cont.)

- × **Nuclear Power Sources in Outer Space**
  - × **Work plan for developing an international technically based framework of goals and recommendations for the safety of nuclear power source applications in outer space**
  - × **Invited the IAEA in 2003 to define specific processes and mechanisms to participate with Subcommittee in developing space NPS technical safety standards**
  - × **2004**
    - × **Review information from space agencies on national space NPS programmes and on applications enabled or enhanced by space NPS**
    - × **Review IAEA specific processes**
    - × **Prepare draft outline of objectives scope and attributes for international technically based framework of goals and recommendations for the safety of planned and currently foreseeable space NPS applications**
    - × **Prepare draft set of potential implementation options for establishing international technically based framework**
    - × **If appropriate, make preliminary decision on whether to recommend co-sponsorship with IAEA of a technical standard development effort starting in 2006**





## Scientific and Technical Subcommittee (cont.)

- × **Single issues/items to be discussed in 2004:**
  - × Examination of the physical nature and technical attributes of the geostationary orbit, its utilization and applications, including, inter alia, in the field of space communications, as well as other questions relating to space communications developments, taking particular account of the needs and interests of developing countries (Geostationary Orbit)
  - × Implementation of an integrated, space-based global natural disaster management system
  - × Solar-terrestrial physics





## Legal Subcommittee

### Current Chairman in 2004: Sergio Marchisio (Italy)

- × The forty-third session was held in Vienna in April 2004, next session 4-15 April 2005.
- × **Regular items discussed by the Subcommittee:**
  - × Status and application of the five United Nation treaties on outer space
  - × Information on the activities of international organizations relating to space law
  - × Matters relating to the definition and delimitation of outer space; and the character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union





## **Legal Subcommittee (cont.)**

- × **Single issue/items discussed in 2004:**
  - × **Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space**
  - × **Examination of the preliminary draft protocol on matters specific to space assets to the convention on International Interests in Mobile Equipment (opened for signature in Cape Town on 16 November 2001)**
  - × **Contributions of the Legal Subcommittee to the COPUOS report on the progress made in implementing recommendations of UNISPACE III (title abbreviated)**





## **Legal Subcommittee (cont.)**

### **Items considered under work plans in 2004:**

- × **Practice of States and international organizations in registering space objects**
  - × **New work plan started in 2004**
  - × **2004: Member States and international organizations presented reports on their practice in registering space objects**





## Convention on International Interests in Mobile Equipment and preliminary draft Protocol on Matters Relating to Space Assets

- × **An initiative of the International Institute for the Unification of Private Law (Unidroit)**
- × Convention intended to have three protocols (aircraft, space assets and railway rolling stock)
- × **Aim to increase the availability of asset-based financing for certain categories of high-value equipment that regularly move across national boundaries – or are outside them altogether.**
- × **The Convention and its first protocol, on aircraft equipment, were adopted at a joint Unidroit-ICAO diplomatic conference in November 2001**





## Convention on International Interests in Mobile Equipment and preliminary draft Protocol on Matters Relating to Space Assets

- × **The Space Assets Protocol is currently being developed and discussed extensively in the Legal Subcommittee**
- × **At Legal Subcommittee member States are considering:**
  - × i) the possibility of the UN serving as supervisory authority under the protocol
  - × ii) relationship between terms of draft protocol and rights and obligations of States under the Outer Space Treaties already in force
- × **First session of a Unidroit Committee of governmental experts for the preparation of a draft Protocol to the Convention on International Interests in Mobile Equipment on Matters specific to Space Assets (Rome, 15-19 December 2003)**
- × **All member States of the Committee invited to participate in the discussions and negotiations**







## Inter-Agency Meeting

- x **Held annually (since 1970's)**
- x **Forum for the United Nations system to discuss activities related to promoting the practical applications of space technology in developing countries**
- x **Attended by various organizations of the UN system involved in, and dealing with, space applications**
- x **UNDP, UNESCO, UNIDO, FAO, WMO, UNHCR, ICAO, IMO, World Bank, UNEP, UNESCAP, UNOPS, UNITAR, ECA, OOSA, etc.**
- x **Items considered in 2004**
  - x **Space-related outcomes of the World Summit on Sustainable Development**
  - x **Implementation of the recommendations of UNISPACE III**
- x **Space Solutions for the World's Problems**
  - x **How the United Nations family is using space technology for sustainable development**



## Inter-Agency Meeting

- × **Next Inter-Agency Meeting from 21 to 23 January 2005**
  - × **Geneva**
  - × **To be hosted by World Meteorological Organization (WMO)**
  
- × **Issues discussed in 2004**
  - × **Involvement of the United Nations entities in the Charter on Cooperation to Achieve the Coordinated Use of Space Facilities in the Event of Natural or Technological Disasters**
  
  - × **Space-related outcomes of the World Summit on Sustainable Development**
  
  - × **Implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III)**
  
  - × **Electronic information networking in the United Nations system.**





## International Space Information Service (ISIS)

[www.unoosa.org](http://www.unoosa.org)

### Information disseminated through ISIS

- × Space-related activities of Member States
- × Space-related activities of the UN and Specialized Agencies
- × Reports on research carried out by Member States on space debris mitigation and nuclear power sources in space
- × Registration data of space objects launched into Earth orbit or beyond provided by Member States to the UN in accordance with the Registration Convention
- × Information on the launch of space objects carrying nuclear power sources and environmental impact assessments conducted by launching States in cases of launch failure and information on impending re-entry of their space objects
- × Information provided by Member States on the recovery of space objects that have returned to Earth
- × Information on the Programme on Space Application (PSA)
- × Information on the workshops, seminars and training courses of the PSA (application forms, programmes, etc.)
- × Information on the UN-affiliated Regional Centres for Space Science and Technology Education (contact details, education curricula, etc)
- × Information on space applications related educational resources available to Member States
- × Public-outreach media



# International Space Information Service (ISIS)

## Components of ISIS

### Print medium

- × Documents of COPUOS (reports of the Committee and its Subcommittees, working papers, national reports, etc)
- × Studies on space-related topics prepared by OOSA at the request of the General Assembly and the Committee (subjects such as Definition and Delimitation of Outer Space, Space Debris, etc.)
- × Directories of education resources for developing countries on space related topics





# International Space Information Service (ISIS)

## Components of ISIS (cont.)

### Electronic medium

Dissemination through the electronic medium is usually done through the Internet by OOSA's web-site. The website is composed of:

### OOSA general web-site

- × OOSA was the first UN office to have a web-page
- × OOSA was one of the first UN offices to provide electronic versions of its documents in all official languages of the UN
- × Presently contains over 2,500 documents in official languages of the UN
- × Provides links to other UN offices and specialized agencies that utilize space technology in their work
- × Provides general information on the Committee on the Peaceful Uses of Outer Space and its Subcommittees as well as meeting schedules and documentation (general and limited distribution) for up-coming sessions
- × Serves as a conduit for the general public's queries on space-related matters





# International Space Information Service (ISIS)

## Components of ISIS (cont.)

### Space Law web-site

- × Provides texts of international space law treaties and principles in all official languages of the UN
- × Includes General Assembly resolutions and documents relating to outer space from 1959
- × Provides texts of national, bi-and multi-lateral national space law from Member States for assisting Member States in the drafting national legislation relating to outer space
- × Provides activity information on OOSA's technical assistance programme on space law
- × Includes an online searchable database on the signatory and party status of the five international space law treaties.





# International Space Information Service (ISIS)

## Components of ISIS (cont.)

### Online Index of Objects Launched into Outer Space

- × Serves as an online searchable index to information provided by Member States on space objects launched into outer space
- × **Contains nearly 5,800 records of satellites launched since 1957**
- × **Contains links to registration documents disseminated by OOSA.** Since 1961 over 850 documents have been issued containing registration data from 28 States and Organizations
- × **Contains information on satellites that have not been registered with the UN to assist Member States in registering their space objects**
- × **Contains web-links to official sites of satellites (where available) for further information**
- × **Can be searched by date, launch location, launcher, etc.**





# International Space Information Service (ISIS)

## Components of ISIS (cont.)

### Programme on Space Application web-site

- × Provides general information on the work of the Programme and activities in thematic areas (remote sensing, satellite communications, search and rescue, disaster management and basic space science)
- × Provides information on the workshops, seminars and training courses of the PSA (application forms, programmes, etc.)
- × Provides access to presentations and papers presented at the activities of the Programme.
- × Provides information on the UN-affiliated Regional Centres for Space Science and Technology Education (contact details, education curricula, etc)
- × Provides information on space applications related educational resources available to Member States





# International Space Information Service (ISIS)

## Components of ISIS (cont.)

### UNISPACE Action Team web-site

- × Limited access website for UNISPACE III Action Team members.
- × **Provides updated contact details for Action Team members**
- × Facilitates work of Action Teams by providing a “clearinghouse” of information and documents.

### Future enhancements of ISIS

- × **Multi-lingual web-site**
- × **Dissemination of remote sensing data sets for use by PSA-sponsored activities**
- × **Enhancement of the Online Index of Objects Launched into Outer Space**