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UNISPACE III

**Working paper submitted by the United Kingdom of Great Britain and Northern Ireland
on behalf of Austria, Belgium, Denmark, Germany, Finland, France, Ireland, Italy,
Netherlands, Norway, Spain, Sweden and Switzerland****

* This document has not been formally edited.

** In order to progress on the agreement of the possible UNISPACE III event, the attached document has been prepared by the following ESA member States: Austria, Belgium, Denmark, Germany, Finland, France, Ireland, Italy, Netherlands, Norway, Spain, Sweden, Switzerland and United Kingdom. Canada was also involved in the preparation of this document.

UNISPACE III: A SPECIAL SESSION OF THE COPUOS

Introduction

The various sections of this document are aimed at assisting the planning process at the next Scientific and Technical Subcommittee, which will focus on agreeing the agenda of the special session of the Committee on the Peaceful Uses of Outer Space: UNISPACE III.

The aim is to present a range of related views on some of the aspects of the organisation of the special session such that the many issues concerning the organising of such an event can be addressed and explored relatively independently before going into the detail of an agenda. Additional planning information is expected from the Office for Outer Space Affairs, in particular on the details of the venue and the proposed method of calculating the financial basis of the preparation and execution of the special session.

It is hoped that this approach will allow relatively rapid progress at the February meeting without the need to review large numbers of old documents, i.e. the meeting should look forward based on its experience of past activities and do so with a common view of what can be achieved with the combined efforts of the world space community.

Contents of the introductory document

- Background (to the agreement to hold a special session of the Committee on the Peaceful Uses of Outer Space)
- The objectives of holding UNISPACE III
- Scope of the event
- Declaration of space benefits
- Structure of the UNISPACE III event
- Topics
- Additional scientific, technical and industrial components of UNISPACE III

Background

The Committee on the Peaceful Uses of Outer Space agreed at its thirty-ninth session in June 1996 to convene a special session of the Committee open to all Member States. The special session will be known as UNISPACE III and will be held in Vienna in 1999, unless the Committee decides that it would be more appropriate to consider the year 2000. The Committee also agreed that it would act as the Preparatory Committee for UNISPACE III and that the Scientific and Technical Subcommittee would act as the Advisory Committee. The Office for Outer Space Affairs will act as the executive secretariat. The event will allow Member States, international organisations and industry, via the associated exhibition, to participate in an event that will help general preparations for the new millennium and show the way forward for space technology applications expected over the next decade or so.

Building on its past work the Scientific and Technical Subcommittee (the Advisory Committee), in February 1997, is requested to produce a sharply focused agenda for UNISPACE III and make future recommendations about organization and timing. In addition the Advisory Committee is requested to draft a schedule of events covering the associated trade exhibition, workshops, poster sessions and other related activities. The Advisory Committee is also requested to outline the desired form of participation by relevant international, regional and other governmental and non-governmental organisations as part of the preparation for UNISPACE III. In carrying out the planning for UNISPACE III the goal should be to provide an opportunity for all such organisations to become involved in both the preparation and the final event. The Scientific and Technical Subcommittee will report on the details of the event to the Committee, which will meet in June 1997.

To assist the Advisory Committee, the executive secretariat will provide details of the venue and other information relating to UNISPACE III, including the financial basis for the planning and execution of the event.

The objectives of holding UNISPACE III

The guiding objective of the UNISPACE III event should be to demonstrate global solutions for society and further encourage the broad and far-reaching collaboration taking place in many areas of space activity and space-based applications. Such cooperation, ranging from scientific areas to purely commercial ventures, helps promote understanding between nations. The conference should focus on contributions to help solve the problems of modern society at the global level and the opportunities for all countries to share in the pursuit of peaceful space activities.

From the above objective for holding a UNISPACE III, the following aims can be identified:

- To demonstrate the utility of space programmes;
- To clarify the benefits that justify investment in space programmes;
- To explain and demonstrate the potential of space applications;
- To explore and enhance ongoing international cooperation;
- To present industrial and commercial applications and use of space;
- To review ongoing United Nations space activities;
- To strengthen the United Nations Programme on Space Applications.

Discussions on the above general objectives and the more specific aims for holding the UNISPACE III event should lead to an agreed text (a report under a non-binding resolution) which will assist progress to more detailed levels of the agenda.

Scope of the event

This section takes a general view of the main topics possible for UNISPACE III and gives an indication of the scope of the event under those topics. The special session should focus on global problems of modern society such as those impacting the global environment and should demonstrate how the information society can be assisted by the use of space-based technology and can itself assist in providing global solutions and access to a wide range of data sources.

It is important that the special session does not duplicate work already being done in other fora such as CEOS, COSPAR and the IAF. These entities should be invited to participate in the special session at an appropriate level as well as being given the opportunity to contribute to the additional scientific and technical components of UNISPACE III which could include workshops or seminars. It is also important that all Member States of the United Nations be involved in the UNISPACE III event.

Declaration on space benefits

The planned UNISPACE III can also take account of the now agreed Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries. The Declaration considers that international cooperation should allow for the efficient allocation of resources and should aim at the following goals:

- Promoting the development of space science and technology and of its application;
- Fostering the development of relevant and appropriate space capabilities in interested States;
- Facilitating the exchange of expertise and technology among States on a mutually acceptable basis.

Also national and international agencies, research institutes, organisations for development aid and developed and developing countries alike should be able to consider the appropriate use of space applications and the potential of international cooperation for reaching their development goals.

Additionally, States are encouraged to contribute to initiatives in the field of international cooperation in accordance with their space capabilities and their participation in the exploration and use of outer space.

Structure of the UNISPACE III event

For the structure during the UNISPACE III event we envisage two committees working in parallel. In working towards the detailed agenda for the UNISPACE III event it is proposed to first consider and agree a structure that will allow the objective and aims of the event to be achieved while taking account of the ongoing activities.

The focus of UNISPACE III will be the problems of modern society which can be managed through space solutions. The first committee of the event could cover the following sections:

- Environment (in particular UNCED, but also regional activities, resources management, disaster management, etc.);
- Information society (fixed and mobile services, tele-medicine, tele-education, etc.);
- Mobility (satellite navigation, etc.).

And the second committee could cover the following:

- Science and education (international space station (ISS), extraterrestrials, education and training);
- Generic and enabling space technologies (robotics, small and micro-satellites, spin-off, standards);
- Global issues and the space environment (space debris, near Earth objects (NEO), space law).

Topics

The following topics will be discussed in the two committees and will refer to the above-mentioned bullet points.

1. Scientific research

Scientific research can serve as an adequate instrument in order to reduce disparities between developed and developing countries, through the implementation of activities and tools such as:

- Exchanges and networking between researchers;
- Training through participation in joint research projects;
- Use of scientific research projects to disseminate technical information;
- Assistance with the dissemination of the results of scientific endeavours.

Scientific research areas to be considered:

- Astronomy;
- Solar system;
- Geophysics;
- Physics and life sciences in space;
- Atmospheric research.

2. Telecommunications

Radiocommunications represent the major application domain of space with the greatest potential. They carry considerable economic, political, cultural and strategic stakes which deserve attention, especially in the following areas:

- Development of applications of positioning systems to assist in protection of the environment, prevention of natural disasters and mitigation of these effects;
- Satellite-based search and rescue services;
- Navigation systems;
- Use of satellite constellations to provide access to telephone facilities in remote areas;
- Use of geostationary satellites for educational purposes;
- Broadband/multimedia communications systems and their applications.

3. Earth observation

Developed as well as developing countries already take advantage of the numerous possibilities of Earth observation, ranging from weather forecasting to environment monitoring and natural resource management. Such applications play a key role in the pursuit of sustainable development. Issues to be dealt with include:

- Monitoring the environment and global changes;
- Natural disaster monitoring and prediction;
- Natural resource management;
- Meteorology, including short- and longer- term atmospheric effects;
- Access to data.

4. Space technology

Access to space and the use of space applications require a high technological capacity. On the way towards capacity building within developing countries, one should consider opportunities offered by:

- Spin-offs;
- Small and micro-satellites;
- Robotics;
- Novel space applications.

5. Training and fellowships

Programmes for training and fellowships play a crucial role in the development of space activities throughout the world. Bearing this in mind, the following issues might be considered:

- Use of micro-sats for training;
- Tele-education;
- Tele-medicine;
- Self-sustaining training programmes (i.e. training for trainers);
- The design of training programmes.

For a possible agenda based on the sections above entitled “Structure of the UNISPACE III event” and “Topics”, see annex.

Additional scientific, technical and industrial components of UNISPACE III

To allow the broadest scope of relevant topics the UNISPACE III event will include additional scientific, technical and industrial components in the following form:

Poster sessions: A series of scientific poster sessions will be selected for display at the exhibition location and will be open to participants and observers throughout UNISPACE III. The posters/papers will highlight the results from ongoing scientific and technical space projects and will be presented by space agencies, international scientific organisations and other interested entities;

Exhibition: An exhibition will be organised for industrialists and other interested parties;

Public evening lectures: These lectures will be given by eminent scientists, and other experts, in various space-related scientific disciplines on subjects of broad interest to UNISPACE III participants and the general public;

Workshops/seminars: These activities can be held as part of UNISPACE III and organised by interested specialised agencies of the United Nations and other international organisations on topics consistent with the objectives and aims of UNISPACE III that fit within the agreed structure and are relevant to their expertise and mandate. This could for example lead to the following:

<i>Environment</i> (and remote sensing)	- CEOS, FAO, UNEP, WMO
<i>Information society and mobility</i> (Communications)	- ITU, ICAO, IMO
<i>Science and education</i> (including astronomy)	- COSPAR, IAF, UNESCO, IAU
<i>Generic and enabling space technologies</i>	-
<i>Global issues and the space environment</i>	- IADB

The appropriate organisations, of which the above list is only an example, could be asked to make appropriate preparations during the forthcoming sessions to ensure that their contribution is designed to help to enrich the UNISPACE III event.

Consistent with the structure of UNISPACE III, the organisation, running and reporting of UNISPACE III will make appropriate and significant use of the Internet. The linking of the United Nations and relevant international sites will assist the planning and preparation for UNISPACE III and provide the ability to demonstrate the many other means by which the objectives and aims set for the conference are being achieved worldwide.

Annex

OUTLINE OF AN AGENDA FOR UNISPACE III

I. SOLUTIONS FOR MODERN GLOBAL SOCIETY THROUGH SPACE TECHNOLOGY

A. Environment

1. Monitoring the environment and global change (UNCED)
2. Natural disaster monitoring and prediction (IDNDR)
3. Natural resources management
4. Meteorology, including short- and longer-term atmospheric effects
5. Satellite-based search and rescue services
6. Development of applications of positioning systems to assist in the protection of the environment, the prevention of natural disaster and the mitigation of these effects

B. Information society

1. Tele-education
2. Tele-medicine
3. Use of satellite constellations to provide access to telephone facilities in remote areas
4. Broadband/multimedia communications systems and its applications

C. Mobility

Satellite navigation for air, sea, road and railroad traffic management

II. NEW FRONTIERS TO SPACE SCIENCE AND GLOBAL TECHNOLOGICAL BENEFITS

A. Science and education

1. Training through participation in joint research projects
2. Exchanges and networking between researchers
3. Use of scientific research projects to disseminate technical information
4. Use of scientific micro-satellites for training
5. Self-sustaining training programmes
6. Design of training programmes

B. Generic and enabling space technologies

1. Robotics
2. Small and micro-satellites
3. Technical standards
4. Spin-offs

C. Global issues and near Earth space

1. Space debris
2. Near Earth objects
3. Further developments in space law