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INTERNATIONAL COOPERATION IN THE PEACEFUL USES OF OUTER SPACE

Implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space

Report of the Secretary-General

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I. INTRODUCTION

1. In its resolution 48/39 of 10 December 1993, the General Assembly requested the Secretary-General to report to the Assembly at its forty-ninth session on the implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE 82). 1/

2. The present report provides information on the progress made in the implementation of the recommendations of the Conference.

3. The Committee on the Peaceful Uses of Outer Space, its Scientific and Technical Subcommittee and the Working Group of the Whole to Evaluate the Implementation of the Recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space considered the question of the implementation of the recommendations of the Conference during their 1994 sessions. Accordingly, the information contained in the present report reflects primarily the result of the work of the Committee, whose report 2/ is before the General Assembly.

II. WORKING GROUP OF THE WHOLE TO EVALUATE THE IMPLEMENTATION OF THE RECOMMENDATIONS OF THE SECOND UNITED NATIONS CONFERENCE ON THE EXPLORATION AND PEACEFUL USES OF OUTER SPACE

4. The Working Group of the Whole was reconvened by the Scientific and Technical Subcommittee at its 1994 session in accordance with General Assembly resolution 48/39 to continue its work.

5. At its 1994 session, the Committee endorsed the recommendations of the Working Group of the Whole as contained in its report (A/AC.105/571, annex II) and recommended that the Working Group be reconvened in 1995 to continue its work.

III. INTER-AGENCY COOPERATION

6. In paragraph 20 of its resolution 48/39, the General Assembly requested all organs, organizations and bodies of the United Nations system and other intergovernmental organizations working in the field of outer space or on space-related matters to cooperate in the implementation of the recommendations of the Conference. In that connection, the Committee noted with appreciation the participation in all stages of its work and that of its Scientific and Technical Subcommittee by representatives of United Nations bodies, the specialized agencies and other international organizations.

7. Several United Nations bodies and specialized agencies have extensive space-related programmes that are contributing to the implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space, particularly the United Nations Environment Programme (UNEP), the Economic Commission for Africa (ECA), the Economic and Social Commission for Asia and the Pacific (ESCAP), the Food and Agriculture A/49/280 English Page 4

Organization of the United Nations (FAO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the World Health Organization (WHO), the International Telecommunication Union (ITU) and the World Meteorological Organization (WMO). Details of these programmes can be found in the yearly reports of the Secretary-General on coordination of outer space activities within the United Nations system. The latest report (A/AC.105/551) contains an overview of the bodies' and agencies' work programmes for 1994 and 1995.

8. The programmes and projects of the organizations of the United Nations system are coordinated at annual inter-agency meetings. The sixteenth session of the Inter-Agency Meeting on Outer Space Activities is scheduled to be held at the United Nations Office at Vienna in October 1994.

IV. STUDIES

9. In response to the requests of the Working Group of the Whole at its seventh session, the Secretariat prepared and submitted to the Scientific and Technical Subcommittee at its thirty-first session, in 1994, the following reports and studies: "International cooperation in the peaceful uses of outer space activities of Member States" (A/AC.105/567 and Add. 1-4 $\underline{3}$ /), "Space applications for forest resource management" (A/AC.105/563) and "Use of low Earth orbit satellites for voice communications" (A/AC.105/564).

10. In endorsing the recommendations of the Working Group of the Whole at its eighth session, the Committee on the Peaceful Uses of Outer Space noted that they called for the preparation of further studies and reports of relevance to the recommendations of the Conference.

11. In addition, and in accordance with the recommendations of the Working Group, the Secretariat will prepare for submission to the Subcommittee at its 1995 session the following reports and studies: reports from Member States containing information on their national and cooperative international space activities; on their space activities subject to greater international cooperation; on their resources and technological capabilities in the fields of space activities for the promotion of cooperation in the peaceful uses of outer space; on safety of orbiting space objects with nuclear power sources (NPS); on the collision of orbiting space objects with NPS on board with space debris; and on their national research on space debris, particularly on practices that have been adopted and that have proven effective in minimizing the creation of space debris. The Secretariat will also prepare technical studies on space applications for sustainable development; satellite-based radio broadcasting services; developing tele-education programmes through international cooperation; basic space science in developing countries; the use of remote sensing technologies for environmental applications, particularly in support of the recommendations of the United Nations Conference on Environment and Development; global change: actual participation of the developing countries and possibilities of enhancing that participation; small microsatellites: current projects and future perspectives for international cooperation; and global exchange of scientific and technical information: networking possibilities for developing countries.

V. UNITED NATIONS PROGRAMME ON SPACE APPLICATIONS

12. In paragraph 7 of its resolution 37/90 of 10 December 1982, the General Assembly endorsed the recommendations of the Conference that the United Nations Programme on Space Applications should be directed towards seven specific objectives. The activities conducted in 1993 by the Programme and the plans for the period 1994/95 to meet those objectives are contained in the report of the United Nations Expert on Space Applications (A/AC.105/555).

A. Training courses/workshops/conferences/symposia

13. Part of the activities carried out or planned under the Programme in 1994, in cooperation with other United Nations bodies, intergovernmental and non-governmental organizations and Governments of Member States, include the following training courses, seminars and workshops: a United Nations/European Space Agency (ESA) Training Course for Latin American and Caribbean Countries on the Monitoring of Natural Resources, Renewable Energy and Environment using the European Remote Sensing Satellite (ERS-1); the Fourth United Nations/Sweden International Training Course on Remote Sensing Education for Educators, organized with the cooperation of the Government of Sweden; the Fourth United Nations/ESA International Workshop on Basic Space Science, hosted by the Government of Egypt and organized with the cooperation of the Austrian Space Agency (ASA), ESA, the German Space Agency (DARA), the International Centre for Theoretical Physics (ICTP), the National Aeronautics and Space Administration (NASA) of the United States of America and the Planetary Society (TPS); the United Nations/Committee on Space Research (COSPAR)/Committee on Science and Technology in Developing Countries (COSTED) Symposium on Space Technology for Development, organized in cooperation with UNEP and the Third World Academy of Sciences; the United Nations/Austria Workshop on Enhancing Social, Economic and Environmental Security through Space Technology, organized in cooperation with the Government of Austria, the City of Graz and ESA; the United Nations/ESA Training Workshop on Microwave Remote Sensing Applications, organized in cooperation with the Government of China; and the United Nations/ESA Workshop on the Application of Space Techniques to Prevent and Combat Natural Disasters, organized for the benefit of Member States in the ECA region.

14. In 1995, the following training courses, seminars, conferences and workshops are planned:

(a) The Fifth United Nations/Sweden International Training Course on Remote Sensing Education for Educators, to be hosted and co-sponsored by the Government of Sweden;

(b) The United Nations/ESA International Training Course on Microwave Remote Sensing for the benefit of Member States in the ESCAP region;

(c) The United Nations International Training Course on Communications Technology for Development;

(d) The United Nations/United States International Workshop on Spin-off Benefits of Space Technology: Challenges and Opportunities; A/49/280 English Page 6

(e) The United Nations Workshop on the Use of Space Techniques for Monitoring and Control of the Desert Environment for the benefit of Member States in the region of the Economic and Social Commission for Western Asia (ESCWA);

(f) The Fifth United Nations/ESA Workshop on Basic Space Science, to be organized for Member States in the ESCAP region;

(g) The Second United Nations Regional Conference on Space Technology for Sustainable Development in the ECA region;

(h) The United Nations Regional Conference on Space Technology for Sustainable Development in Latin America and the Caribbean;

(i) The United Nations/International Astronautical Federation (IAF)Symposium on Space Technology in Developing Countries, during the forty-sixthCongress of IAF;

(j) The United Nations International Workshop on the Development and Design of Small Experimental Payloads.

B. <u>Development of indigenous capability</u>

15. In accordance with the recommendation of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space concerning the development of indigenous capabilities, General Assembly resolution 45/72 of 11 December 1990, in which the Assembly endorsed the recommendation of the Committee that the United Nations should lead, with the active support of its specialized agencies and other international organizations, an international effort to establish regional centres for space science and technology in existing national/regional educational institutions in the developing countries, and resolution 48/39, in which the Assembly once again considered it particularly urgent that the United Nations should support the creation of adequate training centres at the regional level, the Secretariat has continued its efforts, undertaken as part of the United Nations Programme on Space Applications, and has made much progress in establishing such centres. The Secretariat has provided updated information on its activities concerning the regional centres in its document entitled "Report of the United Nations Expert on Space Applications" (A/AC.105/555) and has also reported to the Committee on the latest status. In addition, it is also continuing consultations with regional commissions and the countries that have expressed interest in hosting such centres, as well as its discussions with Member States, the United Nations Development Programme (UNDP) and other regional and international funding institutions on the question of the funding for the establishment of these centres.

16. In the regions listed below, the following countries have offered to host a centre:

(a) In Africa: Ghana, Kenya, Morocco, Nigeria, Senegal and Zimbabwe;

(b) In Asia and the Pacific: China, India, the Islamic Republic of Iran, $\underline{4}$ / Malaysia, Pakistan, Sri Lanka and Thailand;

- (c) In Latin America: Argentina, Brazil, Chile and Mexico;
- (d) In the Middle East: Egypt, 5/ Jordan and the Syrian Arab Republic;
- (e) In Europe: Greece and Romania.

17. The Committee noted that evaluation missions to the regions of the Middle East and Asia and the Pacific were undertaken in 1993/94 with the participation of technical experts from the Office for Outer Space Affairs, ESCWA and ESCAP. Technical experts from Australia and France also participated in the latter mission. Arrangements for the above regions are under discussion between the Governments of the countries concerned and the United Nations.

18. Similar evaluation missions had previously been conducted to countries whose Governments had offered to host centres in the ECLAC and ECA regions, and discussions are under way on the establishment of centres in those regions. The Committee noted with satisfaction that Brazil and Mexico, the countries selected by the United Nations to host the Centre for Space Science and Technology Education for the Latin American and Caribbean region, have recently concluded negotiations with a view to its establishment. The secretariat of the Centre would rotate every four years and would initially be located at the National Institute for Space Research of Brazil and have a Secretary-General of Mexican nationality.

C. <u>Technical advisory services</u>

19. In paragraph 7 (g) of its resolution 37/90, the General Assembly decided that the United Nations Programme on Space Applications should, upon request by Member States or any of the specialized agencies, be directed towards the provision or arrangements for provision of technical advisory services on space applications projects. With regard to that mandate, the Programme has provided or is providing assistance in the following areas:

(a) In collaboration with ESA, on a survey and selection of projects to receive remote-sensing data made available by ESA to African countries covered by ESA's two remote-sensing ground receiving stations, at Maspalomas, Spain, and Fucino, Italy;

(b) To the Government of Ecuador, in promoting regional cooperation, administration and funding of the ground receiving station at Cotopaxi, Ecuador (see para. 22 below);

(c) To the Government of Chile, in its follow-up, as <u>pro tempore</u> secretariat, of the recommendations of the Second Space Conference of the Americas;

(d) To the Government of the Republic of Korea, in the establishment of the Asia-Pacific Satellite Communications Conference.

D. Long-term fellowships

20. In promoting the development of indigenous capability, the Programme will award 17 long-term fellowships for the in-depth training of participants from developing countries in the areas of research and applications in remote-sensing technology; research and training in geodesy, photogrammetry and remote sensing; space antennas and propagation; communications systems; remote sensing information systems; satellite meteorology; and remote sensing instrumentation. The following have renewed their offer of fellowships for the 1994/95 period: the Governments of Brazil (10) and China (2) and ESA (5).

E. <u>Regional mechanisms of cooperation</u>

21. In pursuance of General Assembly resolution 48/39, the Secretariat continued its efforts to strengthen the regional mechanisms of cooperation in carrying out various activities in the implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space, in particular those relating to the Programme on Space Applications.

22. The Programme has made further progress in promoting cooperation between Ecuador and the countries that are within the coverage area of the Cotopaxi ground receiving station. After the conclusion of the mission to the Andean subregion in 1993 in order to make the Cotopaxi station viable to all the countries within its coverage area, a report was submitted to the Governments of the four countries (Colombia, Ecuador, Peru and Venezuela) visited by the mission as well as to the Junta del Acuerdo de Cartagena (JUNAC), the Corporación Andina de Fomento (CAF) and the Caribbean Community (CARICOM) for their consideration. On the basis of this report, CAF recently approved a technical cooperation fund to finance the feasibility study and other substantive actions necessary for the establishment of the Multi-Andean Enterprise (MAE) within which the Cotopaxi station will operate. The Programme continues to contribute to the above feasibility study.

23. The establishment of regional centres for space science and technology education, the primary goal of which is to enhance the academic and professional capabilities as well as the technical infrastructure in space science and technology in the institutions in developing countries in each region, is also viewed as being very much a part of the Secretariat's effort to strengthen regional mechanisms of cooperation. For the Asia and Pacific region, the Secretariat will submit recommendations and proposals for the establishment of such a centre to the Ministerial Conference on Space Applications for Development in the ESCAP Region to be held at Beijing, China, in September 1994 (see sect. V.B above).

VI. INTERNATIONAL SPACE INFORMATION SERVICE

24. In paragraph 8 of its resolution 37/90, the General Assembly decided to establish an International Space Information Service, consisting initially of a directory of sources of information and data services to provide direction, upon

request, to accessible data banks and information sources. With regard to that mandate, the International Space Information Service published <u>Highlights in</u> <u>Space</u> (A/AC.105/566), based on annual reports prepared by COSPAR and IAF and, including for the first time, a submission by the International Institute of Space Law (IISL); and the fifth volume of <u>Seminars of the United Nations</u> <u>Programme on Space Applications</u> (A/AC.105/568), containing selected papers from the seminars, workshops and training courses of the Programme in 1993. The periodic publication <u>Space Activities of the United Nations and International</u> <u>Organizations</u> (A/AC.105/521) has become available in all official languages of the United Nations.

VII. VOLUNTARY CONTRIBUTIONS

25. In paragraph 10 of its resolution 37/90, the General Assembly appealed to all Governments to make voluntary contributions, either in money or in kind, towards carrying out the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space. In a note verbale dated 11 March 1983, the Secretary-General brought that paragraph to the attention of Member States, particularly with respect to the newly mandated and expanded activities of the United Nations Programme on Space Applications. Member States and intergovernmental organizations which have responded to this appeal since the forty-eighth session of the General Assembly have been mentioned under appropriate headings in the report of the Committee on the Peaceful Uses of Outer Space. 2/

26. The Committee noted with appreciation that, following its recommendation to the General Assembly that it increase the budget allocation for the United Nations Programme on Space Applications so that the Programme would be able to implement more fully the recommendations of the Conference, the Assembly had approved at its forty-eighth session an additional budget allocation for the Programme for the biennium 1994-1995. However, the Committee also took note of the disappointment expressed by representatives of developing countries at the lack of financial resources to implement fully the recommendations of the Conference.

VIII. THIRD UNITED NATIONS CONFERENCE ON THE EXPLORATION AND PEACEFUL USES OF OUTER SPACE

27. In accordance with General Assembly resolution 48/39, the Committee on the Peaceful Uses of Outer Space and its Scientific and Technical Subcommittee continued at their 1994 sessions the discussion of the possibility of holding a third UNISPACE conference.

28. The Scientific and Technical Subcommittee had before it working papers submitted by Pakistan (A/AC.105/C.1/L.191), India (A/AC.105/C.1/L.195) and the Group of 77 (A/AC.105/C.1/L.199); a comprehensive report prepared by the Secretariat (A/AC.105/575); and informal non-papers circulated by the Chairman and delegations.

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29. The Committee agreed that a third UNISPACE conference could be convened in the near future, and also agreed that prior to recommending a date for such a conference, there should be a consensus recommendation on the agenda, venue and funding of the conference. In its report, the Committee recommended that a very thorough analysis and definition of an agenda for a third UNISPACE conference should take place at the next session of the Scientific and Technical Subcommittee. In this connection, the Committee agreed that the Subcommittee should discuss a broad range of themes and subjects which could be refined into a sharply focused and detailed agenda for a third UNISPACE conference, as well as, at the same time, continue its examination of other means of achieving the goals set for such a conference.

30. While the Committee agreed that the above-mentioned working papers, report and informal non-papers provided a basis for the Subcommittee's further consideration of this matter, it nevertheless invited interested Member States to submit additional ideas and proposals for a third UNISPACE conference and requested the Secretariat to compile a document containing the various ideas regarding the agenda and organization of such a conference in time for the consideration by the Subcommittee at its next session.

31. The Committee agreed that the discussions in the Subcommittee should provide the basis for a prompt decision by the Committee on a recommendation to the General Assembly regarding the agenda, timing, funding and organization of a third UNISPACE conference.

Notes

<u>1</u>/ See <u>Report of the Second United Nations Conference on the Exploration</u> <u>and Peaceful Uses of Outer Space, Vienna, 9-21 August 1982</u> and corrigenda (A/CONF.101/10 and Corr.1 and 2).

2/ Official Records of the General Assembly, Forty-ninth Session, Supplement No. 20 (A/49/20).

 $\underline{3}/$ A/AC.105/567/Add.5 was issued after the thirty-first session of the Subcommittee.

 $\underline{4}$ / Following a mission to the Islamic Republic of Iran in August 1993, discussions are under way to establish a Centre for the benefit of countries of the Economic Cooperation Organization (ECO) and Asian countries of the former Union of Soviet Socialist Republics. The Centre will be open for participation by any other country of the ESCAP region.

5/ Egypt withdrew its offer to host a centre as of 16 July 1994.
