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**Committee on the Peaceful
Uses of Outer Space
Scientific and Technical Subcommittee
Forty-fourth session
Vienna, 12-23 February 2007**

Draft report

Addendum

VIII. Near-Earth objects

1. In accordance with General Assembly resolution 61/111, the Scientific and Technical Subcommittee considered agenda item 9, “Near-Earth objects”, under the three-year workplan amended at its forty-second session (A/AC.105/848, annex II). Pursuant to the workplan, in 2005, international organizations, regional bodies and others active in the field of near-Earth object research were invited to report on their activities.
2. The representatives of the Czech Republic, the Republic of Korea, the United Kingdom and the United States made statements on the item.
3. The Subcommittee heard the following scientific and technical presentations on the item:
 - (a) “Near-Earth objects observation (NEOO) programme”, by the representative of the United States;
 - (b) “Deflecting NEOs: a pending international challenge”, by the observer for ASE;
 - (c) “NEO research activities in the Republic of Korea: 2006”, by the representative of the Republic of Korea;
 - (d) “Prospects of the Russian Federation in international cooperation on the asteroid/comet impact hazard problem”, by the representative of the Russian Federation;
 - (e) “Possible approaches to implementation of the ‘Citadel-1’ international planetary defence system project”, by the representative of the Russian Federation;



(f) “NEO research activities in Germany”, by the representative of Germany;

(g) “Action Team 14: near-Earth objects; interim report”, by the representative of the United Kingdom.

4. The Subcommittee had before it the following documents:

(a) Note by the Secretariat on information on research in the field of near-Earth objects, carried out by Member States, international organizations and other entities (A/AC.105/863/Add.1 and 2);

(b) Interim report of the Action Team on Near-Earth Objects (A/AC.105/C.1/L.290).

5. The Subcommittee noted that near-Earth objects were asteroids and comets with orbits that could cross the orbit of the planet Earth. The Subcommittee also noted that the interest in asteroids was largely due to their scientific value as remnant debris from the inner solar system formation process, the possibility of their collision with the Earth and its devastating consequences, and the availability of various natural resources on them.

6. The Subcommittee noted that early detection and precision tracking were the most effective tools for the management of threats posed by near-Earth objects. The Subcommittee noted that a number of teams searching for and investigating near-Earth objects were active in various countries.

7. The Subcommittee noted with satisfaction that a number of institutions were investigating possibilities for the mitigation of threats posed by near-Earth objects. The Subcommittee also noted that any measures to mitigate such threats would require coordinated international efforts as well as an increased knowledge base of the properties of near-Earth objects through such means as spectrographic analysis and near-Earth object fly-bys and landings.

8. The Subcommittee noted that some member States had implemented or were planning to implement fly-by and exploration missions to near-Earth objects. The Subcommittee also noted past and upcoming international missions to near-Earth objects.

9. The Subcommittee agreed that efforts to detect and track near-Earth objects should be continued and expanded at the national and international levels.

10. Pursuant to paragraph 16 of General Assembly resolution 61/111, the Subcommittee, at its 668th meeting, on 19 February, established a working group on near-Earth objects for one year under the chairmanship of Richard Tremayne-Smith (United Kingdom). The Working Group on Near-Earth Objects held two meetings.

11. At its 675th meeting, on 22 February, the Subcommittee endorsed the report of the Working Group on Near-Earth Objects (see annex [...] of the present report), including the new multi-year workplan proposed by the Working Group for the period 2008-2010.

X. International Heliophysical Year 2007

12. In accordance with General Assembly resolution 61/111, the Scientific and Technical Subcommittee considered agenda item 11, “International Heliophysical Year 2007”, under the three-year workplan adopted at its forty-second session (A/AC.105/848, annex I).

13. The representatives of Canada, China, Germany, Greece, Hungary, India, Indonesia, Italy, Japan, Malaysia, Nigeria, the Republic of Korea and the United States made statements on the item.

14. The Subcommittee heard the following scientific and technical presentations on the item:

(a) “IHY 2007: an update on planning and implementation”, by [...] on behalf of the secretariat of the International Heliophysical Year;

(b) “The International Lunar Decade”, by the observer for the Planetary Society.

15. The Subcommittee had before it a note by the Secretariat on reports on national and regional activities related to the International Heliophysical Year 2007 (A/AC.105/C.1/L.288), containing reports from member States and one observer of the Committee on the Peaceful Uses of Outer Space.

16. The Subcommittee noted with satisfaction that the International Heliophysical Year, celebrated worldwide in 2007, would mark the fiftieth anniversary of the International Geophysical Year, which had been held in 1957, and 50 years of space exploration and that scientists and engineers from Member States would once again come together for an international programme of scientific collaboration on fundamental global questions of Earth and space sciences, in particular on the solar-terrestrial interaction.

17. The Subcommittee also noted with satisfaction that the specific objectives of the International Heliophysical Year had been pursued throughout the world by Member States in the year 2006, were part of ongoing activities in 2007 and would continue in 2008. The specific objectives of the International Heliophysical Year were:

(a) To provide benchmark measurements of the response of the magnetosphere, the ionosphere, the lower atmosphere and the Earth’s surface in order to identify global processes and drivers that affected the terrestrial environment and climate;

(b) To further the global study of the Sun-heliosphere system outwards to the heliopause in order to understand the external and historical drivers of geophysical change;

(c) To foster international scientific cooperation in the study of current and future heliophysical phenomena;

(d) To communicate the unique scientific results of the Year to interested members of the scientific community and to the general public.

18. The Subcommittee noted with appreciation the progress made by Member States in the conduct of outreach, educational and research campaigns, and in the deployment of instrument arrays.
19. The Subcommittee noted that, building on the results of the International Geophysical Year, the International Heliophysical Year would expand the study of universal processes in the solar system that affected the interplanetary and terrestrial environments. The study of energetic events in the solar system would pave the way for safe human space travel to the Moon and planets and would serve to inspire the next generation of space physicists.
20. The Subcommittee noted that particular focus had been placed on the following components of the International Heliophysical Year in the year 2007: scientific research; space science instruments; outreach and education; and preserving the history of the International Geophysical Year.
21. The Subcommittee also noted that, during its forty-fourth session, several events devoted to the celebration of the International Heliophysical Year 2007 had been conducted, such as the opening of an exhibition on the International Heliophysical Year 2007 at the United Nations Office at Vienna and a one-day workshop on the International Heliophysical Year 2007, hosted in Vienna by the Austrian Academy of Sciences.
22. The Subcommittee noted with satisfaction that the United Nations Basic Space Science Initiative, in cooperation with the secretariat of the International Heliophysical Year, continued to support the deployment in countries throughout the world, in particular in developing countries, of arrays of small instruments such as magnetometers, radio antennas, GPS receivers and all-sky cameras, to provide global measurements of heliospheric phenomena.
23. The Subcommittee noted the workshops conducted within the framework of the International Heliophysical Year, including: a regional workshop on African participation in the International Heliophysical Year and the International Polar Year, held in Cape Town, South Africa, in June 2006; an international seminar on the International Heliophysical Year in Asia and the Pacific, coordinated and hosted by the Government of China in Beijing in October 2006; and the Second United Nations/National Aeronautics and Space Administration Workshop on the International Heliophysical Year 2007 and Basic Space Science, co-organized by the secretariat of the International Heliophysical Year and the Indian Institute of Astrophysics and held in Bangalore, India, from 27 November to 1 December 2006.
24. The Subcommittee also noted that the third United Nations/National Aeronautics and Space Administration Workshop on Basic Space Science and the International Heliophysical Year 2007 would be hosted by the Government of Japan in Tokyo in 2007 and that two more such workshops were planned for 2008 and 2009, the latter to be hosted by the Government of the Republic of Korea.
25. The Subcommittee further noted that the second European General Assembly of the International Heliophysical Year would be held in Turin, Italy, in June 2007.
26. The Subcommittee also noted that, as part of the outreach and public awareness programmes, several publications devoted to the International Heliophysical Year had been issued, such as a special issue of the magazine

African Skies/Cieux africains devoted to African participation in the International Heliophysical Year and a special issue of *Physik Journal* of Germany.

27. The Subcommittee noted with satisfaction that there had been calls for further deepening of international collaboration within the framework of the International Heliophysical Year and that, at its forty-fifth session, Member States would continue to report to it on their activities related to the International Heliophysical Year.

XII. Draft provisional agenda for the forty-fifth session of the Scientific and Technical Subcommittee

28. In accordance with General Assembly resolution 61/111, the Scientific and Technical Subcommittee considered proposals for a draft provisional agenda for its forty-fifth session, to be submitted to the Committee on the Peaceful Uses of Outer Space. Pursuant to paragraph 11 of that resolution, the Subcommittee requested the Working Group of the Whole, reconvened at its 660th meeting, on 13 February, to consider the draft provisional agenda for the forty-fifth session of the Subcommittee.

29. At its [...]th meeting, on [...] February, the Subcommittee endorsed the recommendations of the Working Group of the Whole concerning the draft provisional agenda for the forty-fifth session of the Subcommittee, contained in the report of the Working Group of the Whole (see annex [...] to the present report).

30. The Subcommittee noted that the Secretariat had scheduled the forty-fifth session of the Subcommittee to be held from 11 to 22 February 2008.
