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NOTE VERBALE DATED 12 FEBRUARY 2007 FROM THE PERMANENT MISSION OF CANADA ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING CANADA'S CONTRIBUTION ENTITLED "TRANSPARENCY AND CONFIDENCE BUILDING MEASURES IN OUTER SPACE"

The Permanent Mission of Canada to the Office of the United Nations at Geneva presents its compliments to the Secretary-General of the Conference on Disarmament at the United Nations Office in Geneva, and has the honour to submit Canada's paper on "Transparency and Confidence Building Measures in Outer Space Activities," as previously presented pursuant to UN General Assembly resolution 60/66. We would appreciate it being circulated as a document of the Conference on Disarmament.

TRANSPARENCY AND CONFIDENCE-BUILDING MEASURES IN OUTER SPACE ACTIVITIES

1. Canada commends the Russian Federation for its initiative in bringing forward General Assembly resolution 60/66 on transparency and confidence-building measures (CBMs) in outer space, and for encouraging a dialogue on this important issue.
2. Next year will mark the 40th anniversary of the opening for signature of the *Outer Space Treaty* (OST), as well as the 50th anniversary of the launch of SPUTNIK. Discussion of these issues is therefore timely.
3. Space is a global resource, and is increasingly part of our collective critical infrastructure – from global communication and navigation links to the collection of environmental and natural resource management information. Activities in outer space encompass civil, military and increasingly commercial endeavours that are all consistent with the peaceful uses of outer space. The exploration, exploitation and sustainable use of outer space should continue to be carried out for the benefit and in the interests of all States. As the *Outer Space Treaty* makes clear, outer space “shall be the province of all mankind”.
4. In order to protect this resource upon which we all increasingly rely, Canada supports the examination of transparency and confidence-building measures in outer space as a complement to existing pursuits within the Conference on Disarmament and the Committee on the Peaceful Uses of Outer Space. Transparency and confidence-building measures can contribute to reduce threat perceptions and help to build trust among nations. They also can facilitate increased international cooperation in outer space among states and thus serve to promote international peace and security.
5. This paper describes some of the kinds of transparency and confidence-building measures that exist already in international law or in other commitments undertaken by states relating to outer space – or that could potentially have an application to outer space. While the list is not by any means exhaustive, it nevertheless could assist Member States in their consideration and general discussion of transparency and confidence-building measures in outer space.

Using existing instruments to the full

6. A number of tools related to transparency and confidence-building measures are already at our disposal. For example, the overall body of existing space law provides an important contribution to building confidence among space actors. States could therefore make the fullest use of provisions available in existing agreements and arrangements.
7. Transparency and confidence-building measures are some of the key elements of the *Outer Space Treaty* (1967). For example, Article IX (consultations concerning proposed activities or experiments in space), Article X (“the States Parties to the Treaty shall consider on a basis of equality any requests by other States Parties to the Treaty to be afforded an opportunity to observe the flight of space objects launched by those States”), Article XI (regarding

information sharing), and Article XII (reciprocal access to “all stations, installations, equipment and space vehicles on the Moon and other celestial bodies”).

8. Transparency and confidence-building measures are also an integral part of the *Hague Code of Conduct against Ballistic Missile Proliferation* (HCOC). In addition to promoting further voluntary bilateral or regional steps, transparency measures available under the HCOC include:

- (i) annual declarations outlining Space Launch Vehicle (SLV) policies and launch sites, as well as the number and generic class of SLVs launched during the previous year;
- (ii) pre-launch notification for SLVs and Ballistic Missiles; and
- (iii) extending invitations to international observers to witness launches.

9. Canada calls on all Member States of the United Nations to subscribe to the HCOC and to fully implement its provisions.

10. The *Convention on the Registration of Objects Launched into Outer Space* (1975) established a mandatory and uniform registration system for objects launched into outer space. The Convention requires mandatory reporting to the United Nations Secretary General on issues such as the date and location of the launch, basic orbital parameters after launch, and the recovery date of the spacecraft. Work is currently underway in the COPUOS Legal Subcommittee to review the registration practices of states and international organizations and to adopt a set of best practices/guidelines for registration, including on the types of information to be provided. It is expected that this work will enhance the quality of information provided pursuant to the Convention.

11. A significant amount of information relating to trends and annual developments related to space is available by researching open sources. The provision of neutral and evidence-based analysis of this information can serve to augment transparency and confidence. In this connection, the *Space Security Index*, developed by the research consortium spacesecurity.org, is an important tool for transparency and awareness building.

Enhancing transparency and confidence-building measures:

12. In addition to ongoing work in the Conference on Disarmament (CD) and the Committee on the Peaceful uses of Outer Space (COPUOS), there are a number of other confidence-building and transparency measures relating to activities in outer space that could be examined for their potential contribution to enhancing international peace and security:

- (i) Debris mitigation: In March 2006 the COPUOS Scientific and Technical Subcommittee received from its Space Debris Working Group draft guidelines aimed at reducing the production of harmful debris in outer space. The draft guidelines, based on work by the Inter-Agency Space Debris Co-ordination Committee (IADC), were approved for referral to member states for their consent and onward transmission to the COPUOS 2007 Plenary. It is hoped that the guidelines will be adopted at UNGA 62 (Fourth Committee) in 2007.

- (ii) The successful negotiation of voluntary guidelines for the mitigation of space debris will help increase the understanding of other space actors' activities in space and thus enhance the sustainable use of outer space in the face of a growing environmental problem. Once adopted, states will be encouraged to voluntarily take measures, through national or other mechanisms – including through national legislation, as appropriate – to ensure that the guidelines are implemented.
- (iii) Space traffic management: Guidelines to improve space traffic management could also be considered. Such measures could possibly include, *inter alia*, more detailed pre-launch notifications, notification of orbital change and other manoeuvres that could result in close approaches to other space objects, and a pre-atmospheric re-entry notification regime. Enhanced data sharing on natural space environmental conditions, as well as an improved information-sharing and consultation procedures for collisions, interference and other incidents in space, could also serve to enhance international peace and security. Member States may wish to consider the contribution to space security by a rules-based behaviour regime that defined acceptable conduct by all space-faring states and thus provided confidence through predictability.
- (iv) Moratorium on anti-satellite weapons tests: The cessation of tests of anti-satellite (ASAT) weapons by the US and Soviet Union in the 1980s is an important example of voluntary restraint, and a significant confidence-building measure. Other space-faring states could observe similar moratoria.

13. Improved space object characterisations: States that register space objects in accordance with the *Registration Convention* could give serious consideration to declaring additional information concerning, *inter alia*, the manoeuvrability and effective irradiated power capabilities of newly registered space objects. This issue could also be considered by the COPUOS Legal Subcommittee in the context of its review of registration practices. Additional information could assist other registrants in computing a harm index that would assess the ability of the newly registered space objects to interfere, damage or destroy other space objects by contact or at a stand-off range.

14. Low technology co-operative launch monitoring: Space launch vehicles and ballistic missiles generate a considerable amount of noise when they are launched. Exploiting a resurgence of scientific interest in infrasound technology, similar to that being employed by the provisional Comprehensive Test Ban Treaty Organisation, might offer the international community a means to declare and demonstrate compliance with an improved, universal pre-launch notification regime for space launch vehicles and ballistic missiles.

15. Participation in the co-operative monitoring of the launch events of ballistic missiles and space launch vehicles could help all states gain insight into the intent and capabilities of those states with active rocket programs. Collective monitoring could therefore help all states combat ballistic missile proliferation by filling knowledge gaps that could otherwise fuel horizontal and vertical ballistic missile arms races.

16. Ground-based space surveillance: In 1989, France proposed the creation of a space surveillance system, consisting of radar and optical sensors, for the international community to track the trajectory of space objects. This was presented in the Conference on Disarmament (CD/937 and CD/PV.570) and evolved into a proposal to establish an international trajectography centre (UNITRACE).

17. Given the rapid advances in technology, and easier access to high-quality open source information, the UNITRACE proposal could be revisited and updated. Such an initiative could complement the US-Russian agreement to establish a Joint Early Warning and Data Interpretation Centre and would be consistent with that agreement's envisaged multilateralisation. It could also have benefits for commercial satellite operators in terms of providing information to de-conflict satellite launches and close approach orbital trajectories. It would also reinforce the Registration and Liability Conventions.
