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WAYS AHEAD ON PAROS IN THE CD AND ELSEWHERE

**Dr Patricia Lewis, Director, UNIDIR
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First let me congratulate you Mr President on a most stimulating set of structured discussions on the prevention of an arms race in outer space. May I also say that all of the other structured discussions made possible through the P6 initiative have also been useful and have provided us with new information and new ideas. I particularly want to thank and congratulate all those states that made interventions, distributed papers and brought experts to Geneva.

I should also like to thank you for this very welcome opportunity to address the informal open-ended meeting. We greatly appreciate it. I shall focus my remarks on the second item for discussion, namely: the way ahead on PAROS in the CD and elsewhere.

I shall start with a short explanation of UNIDIR's work on the issue of space security and PAROS. It is not new. Work began on this topic soon after UNIDIR was established in 1980. According to our mandate, UNIDIR's work aims at

- (a) Providing the international community with more diversified and complete data on problems relating to international security, the armaments race and disarmament in all fields, particularly in the nuclear field, so as to facilitate progress, through negotiations, towards greater security for all States and towards the economic and social development of all peoples;
- (b) Promoting informed participation by all States in disarmament efforts;
- (c) Assisting ongoing negotiations on disarmament and continuing efforts to ensure greater international security at a progressively lower level of armaments, particularly nuclear armaments, by means of objective and factual studies and analyses;
- (d) Carrying out more in-depth, forward-looking and long-term research on disarmament, so as to provide a general insight to the problems involved and stimulating new initiatives for new negotiations.

To ensure that is what we actually do, UNIDIR's work programme is reviewed annually and is subject to approval by the UN Secretary-General's Advisory Board

on Disarmament Matters, which also functions as UNIDIR's Board of Trustees – and indeed will meet in Geneva next week. The Director reports yearly to the General Assembly and to the ACABQ on the activities, administration and finances of the Institute. We are also audited annually and have recently been audited by the UN external auditors and the Office of Internal Oversight Services.

Early UNIDIR publications on this topic include the *Prevention of the Arms Race in Outer Space* by V. Vereshchetin in 1986, a UNIDIR study on the *Prospects and Consequences of an Arms Race in Outer Space and the Means for its Prevention*, also in 1986, and *Satellite Warfare: A Challenge for the International Community* by P. Lellouche in 1987. Throughout the twenty-five years of UNIDIR's existence, the topic of outer space security and the peaceful uses of outer space has been a major focus for the Institute. This is of course in part because our work aims to assist and facilitate your work and in part because we are mandated to carry out forward-looking, long-term research so as to stimulate new initiatives.

More recently our work has produced a series of conferences and workshops co-funded by the Simons Foundation and a range of Member States. As a result of the meetings we have produced a series of publications and a special issue of our quarterly journal *Disarmament Forum*.

The conferences and reports include: 2002 *Outer Space & Global Security*, 2003 *Making Space for Security, Disarmament Forum*, 2003 *Roundtable on Space Weaponization and Security*, 2004 *Safeguarding Space for All: Security & Peaceful Uses*, 2005 *Safeguarding Space Security: Prevention of an Arms Race in Outer Space* and the 2006 conference *Building the Architecture for Sustainable Space Security* plus the book by Detlev Wolter, *Common Security in Outer Space & International Law*. All of these publications are available through our website (www.unidir.org), the UN Bookshop and from UNIDIR itself.

Ways Forward

If I were to present here today all of the ideas and proposals from UNIDIR's work on Space Security and PAROS, we should still be here by tomorrow. Instead, I have taken a subjective approach and I have chosen some of the ideas put forward in our recent (2002 onwards) conferences and publications that have something to offer as the CD considers the way ahead on PAROS.

None of these I can claim to be mine. Internationally renowned experts, who spoke at our conferences and wrote for our publications, have put them forward. I append a list of those experts at the end of this paper.

I have divided up these ideas into the following approaches:

1. A Transparency & Confidence-Building Measures Approach
2. The PAROS Treaty Approach
3. The Outer Space Treaty Approach
4. Using and building on other international instruments – the patchwork quilt approach

I shall now address each of these as a possible way forward.

1. A Transparency & Confidence-Building Measures Approach

Under TCBMs there are three distinct divisions:

- a. Codes of Conduct
- b. Cooperative measures
- c. Unilateral trust-builders

a. Codes of Conduct

Taking first the Codes of Conduct, they can be bilateral or multilateral agreements that are binding or voluntary. Their aim is to prevent dangerous practices and thus prevent accidents. They are very similar in concept to for example, rules for driving on the roads – highway codes, rules of the road etc. They would focus on behaviour in space, rather than on specific weapons systems. Codes of Conduct could, for example, address the prevention of close encounters of space objects, the prevention of crashes in space and what to do when things like this occur accidentally.

Michael Krepon of the Henry L. Stimson Centre and Peter Zimmerman of Kings College London are two experts who have addressed these ideas from practical and technical viewpoints. The 1972 Prevention of Incidents On or Over the High Seas (INCSEA) Agreement and the 1989 Prevention of Dangerous Military Activities Agreement are two exemplars of such an approach.

INCSEA was agreed between the US and the USSR following some potentially serious incidents at sea during military exercises at the height of the cold war. The agreement includes such measures as informing vessels when submarines are nearby, avoiding collisions by taking great care in approaches, non-interference of naval formations, avoiding dangerous manoeuvres through areas of heavy traffic, mutually agreed signals for near approaches, agreement not to simulate attacks at, launching objects at or illuminating the bridges of other nearby vessels. All common sense stuff when read today, but at the time, the opposite behaviours were sometimes the game of military exercises and led to some near-catastrophes. INCSEA has been a model for many other countries and similar agreements have been adopted by dozens of sea-faring nations.

Likewise, the 1989 Prevention of Dangerous Military Activities agreement prevents damaging interference with command and control networks, harmful use of lasers, and it provides for special caution areas to deal with border or boundary incursions.

Similar ideas could be thought of for a Code of Conduct in Space. For example, near approaches by satellites should be avoided but when they occur, some form of technical identification of the satellite could make all the difference in how a country whose satellite is about to be damaged in a collision responds. If the satellite has identified itself, then chances are it will be clear that an accident is in progress

and if not clear, immediate clarification could be sought. Agreement not to simulate attacks could also be one significant measure in space.

b. Cooperative Measures

Cooperative measures are one level down from codes of conduct in that they can be bilateral, plurilateral – particularly regional - or multilateral in participation. They can include information exchanges, agreements on prevention of key destabilizing activities, international cooperation to track and mitigate debris, international space surveillance & tracking cooperation – including jointly operated observation satellites and cooperative data exchange centres. Increased collaboration to detect and track satellites and space debris is one possibility with some chance of meaningful success and revisiting the Russian proposal for joint data exchange centres and the Russian-American observation satellite (RAMOS) could be worth trying. Both of these proposals could be adapted for a wider cooperative approach.

c. Unilateral Trust-builders

There are a number of measures that states can take to increase trust and confidence. These can be taken up and adopted by others. For example the Russian Federation's unilateral declaration of No First Deployment of space weapons has of last year been adopted by a wider group of states. Dr Nancy Gallagher of the University of Maryland, for example, proposes that states desiring greater international progress on space security could begin with themselves and ensure that they fulfill their obligations under existing relevant treaties such as submitting full, accurate reports in time to the UN Convention of Registration of Objects Launched into Outer Space.

All forms of unilateral transparency measures, such as pre-notification of launches including details such as place, time and purpose can be undertaken by space-faring nations will little cost to the declarer and large benefits for the planet. Many states have already adopted such measures over and above their international commitments.

Dr Gallagher goes a step further and suggests that unilateral measures coupled with cooperative measures such as cooperative earth observation programmes could lead to a new Galileo process that would encourage states to build on their efforts step by step towards strong and more international commitments as their mutual trust and confidence builds.

2. *The PAROS Treaty Approach*

In some ways this is the easiest section of this presentation to address, in other ways it is the hardest.

The first approach would be of course to agree a Programme of Work in CD. In this way, structured discussions would take place on PAROS, in conjunction with discussions on a range of other subjects, including nuclear disarmament, and

negotiations on the long overdue ban on the production of fissile material for weapons purposes could begin (again!). As easy as this might sound it is not so trivial and has eluded the CD for the best part of a decade. It is not my job in this presentation to suggest creative fixes for this problem, but perhaps the P6 initiative has gone some of the way to finding the way through.

Another approach within the CD or outside it for that matter – is for step-by-step discussions focusing on agreeing TCBMs. Then there could be follow-on steps and then – if these go well and confidence is built- an international agreement or even agreements – many other treaties have been formed in just this manner.

There are concerns from some states over slippery slopes and finding themselves locked into a negotiation that they do not want. But in the end it is up to states whether they choose to join a negotiation or sign or ratify a treaty. The only slopes at the moment seem to be going uphill, all the sliding seems to be away from multilateral legally binding treaties.

Could it be done outside CD? Indeed any agreement can be achieved outside the CD, if states so choose to do so. This could also be a binding treaty – a good example is the Convention on Nuclear Terrorism. Dr Rebecca Johnson of the Acronym Institute for Disarmament Diplomacy has suggested that states particularly keen on negotiating a treaty on PAROS should consider beginning outside the CD, perhaps in a capital of one of those states, and perhaps as part of preparations for a future negotiation in the CD. She also suggested a negotiation that would include industry, the military and academic experts in some way.

Could CD work with COPUOS?

Yes. In the discussions with the new Chairman of COPUOS at UNIDIR's recent conference on Building the Architecture for Sustainable Space Security, it became clear that where it comes to the peaceful uses of outer space, COPUOS could work with the CD to consider whether there could be further tasking of resources and approaches as what could be done in Vienna and what could be done in Geneva. COPUOS could invite CD delegations & officials to Vienna or the CD could invite COPUOS delegations & officials to Geneva – or both. We heard from M. Gérard Brachet of the great progress that COPUOS has made in one of the most serious space security issue – that of space debris and its mitigation. Further work on this issue most certainly can be done. It would be worth reconsidering in today's political climate just what could be considered as in the peaceful uses domain and thus what could be usefully tackled by COPUOS, thus perhaps relieving some of the potential agenda of PAROS.

Indeed the WMDC stated that, “given the dual-use nature of space activities, it is unfortunate that regulations dealing with the peaceful uses of outer space – including the activities of the UN General Assembly's Committee on the Peaceful Uses of Outer Space (COPUOS) – are separated from those that address military or weapons-related issues. The lack of an overall framework prevents the development of a coherent approach to future challenges to space security – for example, a code

of conduct and collective approaches for debris mitigation or launch notification. Institutions for addressing the full range of space-related issues need to be overhauled and revitalized. Either the mandates of existing forums should be revised, or a new forum needs to be created to address space security in all its aspects.” (Weapons of Terror, Freeing the World of Nuclear, Chemical and Biological Weapons, the Weapons of Mass Destruction Commission, 2006, p147).

3. Outer Space Treaty Approach

On the screen, I have outlined the basic content of the Outer Space Treaty. The reason for this is to draw your attention to two important aspects of the Treaty. The first is article 15 that states: “Any party to the Treaty may propose amendments to this Treaty. Amendments shall enter into force for each State Party to the Treaty accepting the amendments upon their acceptance by a majority of the States Parties to the Treaty and thereafter for each remaining State Party to the Treaty on the date of acceptance by it.

The second is that there is no provision for review of the Outer Space Treaty, only for amendment.

I now want to turn to the proposals made by the Weapons of Mass Destruction Commission, chaired by Dr Hans Blix and made public on 1st June.

WMD Commission Proposals – the OST

“Although the major space-faring nations are parties to the OST, the treaty falls far short of universal membership (there are 98 parties as of April 2006).

In 2007, the OST will be 40 years old. It is time for a review of this treaty. Because all states have a high stake in maintaining outer space as a secure environment for peaceful uses, even those states with little intention of developing their own military or space-launch capabilities should be encouraged to become parties to the OST. That would reinforce the regime and help to educate and involve all nations in protecting space as a shared resource for peaceful development and the enhancement of global security.” (Weapons of Terror, Freeing the World of Nuclear, Chemical and Biological Weapons, the Weapons of Mass Destruction Commission, 2006, p147).

WMDC RECOMMENDATION 45

“All states should renounce the deployment of weapons in outer space. **They should promote universal adherence to the Outer Space Treaty** and expand its scope through a protocol to prohibit all weapons in space. Pending the conclusion of such a protocol, they should refrain from activities inconsistent with its aims, including any tests against space objects or targets on earth from a space platform”.

“States should adapt the international regimes and institutions for space issues so that both military and civilian aspects can be dealt with in the same context. States should also set up a group of experts to develop options for monitoring and verifying

various components of a space security regime and a code of conduct, designed *inter alia* to prohibit the testing or deployment of space weapons”.

WMDC RECOMMENDATION 46

“A Review Conference of the Outer Space Treaty to mark its 40th year in force should be held in 2007. It should address the need to strengthen the treaty and extend its scope. A Special Coordinator should be appointed to facilitate ratifications and liaise with non-parties about the reinforcement of the treaty-based space security regime”.

As there is no formal mechanism for such a review in the OST, perhaps such a conference could be held to mark the 40th anniversary. The 40th anniversary conference could then be used to review the treaty and examine the functioning and scope of the Treaty in light of today’s security concerns.

4. Other international instruments?

There are a number of other international instruments that could be built upon in order to strengthen the space security architecture. These include:

- The 1968 Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space.
- The 1972 Convention on International Liability for Damage Caused by Space Objects
- The 1975 Convention on Registration of Objects Launched into Outer Space
- The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies.

All could be built on or used to build more confidence. However, it is important to note that not all states are party to these conventions.

In addition, the 2003 Hague Code of Conduct contains a commitment to transparency measures, (with an appropriate and sufficient degree of detail to increase confidence...), including exchanging detailed pre-launch notifications on ballistic missile and space launch vehicle launches and test flights. Regional transparency measures are also encouraged where appropriate.

From a Patchwork Quilt to a Pax Cosmica*

In order to address the prospects for space security using a multifaceted approach, first we need to look at the areas that are already covered by the various agreements and frameworks and then we need to identify what is not covered. In so doing, perhaps then the institutions that could address such gaps could be identified. For example, frameworks such as the Conference on Disarmament, the Committee on Peaceful Uses of Outer Space (COPUOS), the Outer Space Treaty and other existing

* Pax cosmica was coined by Ambassador Peggy Mason to describe an internationally agreed cooperative regime governing outer space, in D. Wolter, *Common Security in Outer Space and International Law*, UNIDIR 2005/29, p.xv.

structures and treaties could each have a specific role to play. In addition, TCBMs established in industrial and professional forums could be useful.

This Patchwork Quilt approach allows interested states to build a patchwork of existing and new measures around the gaps and the needs. Such an approach could allow a more effective use of the materials we already have and use of the appropriate institutional frameworks

Use an overarching framework to contain all of this, such as the proposed OCSO – Organization for Common Security in Outer Space (a proposal from Dr Detlev Wolter, *Common Security in Outer Space and International Law*, UNIDIR 2005/29, pp185 - 190) could be a cost-effective measure in that such a body could ensure that gaps are addressed and duplication does not take place.

The issue of space security is perhaps too important, and the thin shell of our biosphere is too fragile to be put into one basket and one basket only.

I welcome reactions, questions and comments in this informal, interactive discussion.

Thank you Mr President.

**UNIDIR Invited experts and Authors
on Space Security and PAROS 2002-2006**

Doug Aldworth (Canada)	Li Daoyu (China)
Phillip Baines (Canada)	Li Song (China)
Gerard Brachet (France)	Scott Lofquist-Morgan (Canada)
Gerhard Brauer (Germany)	John MacDonald (United States)
Richard. Bruneau (Canada)	Andrey Makarov (Russia)
Heather Couper (United Kingdom)	Robert McDougall (Canada)
Bruce DeBlois (United States)	J. Clay Moltz (United States)
Amb Jonathan Dean (United States)	Gopalakrishnan Narayanan (India)
Alain Dupas (Canada)	Laurence Nardon (France)
Duan Zhanyuan (China)	Götz Neuneck (Germany)
Sarah Estabrooks (Canada)	Pan Jusheng, (China)
Joanne Gabrynowicz (United States)	Ernie Regehr (Canada)
Nancy Gallagher (United States)	Jürgen Scheffran (Germany)
Thomas Graham (United States)	Atef Sharif (Egypt)
Laura Grego (United States)	Lucy Stojak (Canada)
Col. Chris Hadfield, (Canada)	Stephen Stott (United States)
Regina Hagen (Germany)	Anton Vasiliev (Russia)
Lt. Col. Peter Hays (United States)	Balakrishnan Vasudevan (India)
Theresa Hitchens (United States)	Vladimir Vozhzhov (Russia)
Wade Huntley (Canada)	Johannes Wolff (United States)
Alaa ISSA (Egypt)	Detlev Wolter (Germany)
Rebecca Johnson (UK)	David Wright (United States)
Vladimir Kamenskiy (Russia)	Wu Haitao (China)
Vladimir Kotelnikov, (Russia)	Zhai Yucheng (China)
Michael Krepon (United States)	Peter Zimmerman (United States)
Jeffrey Lewis (United States)	