

## Peace in Space: A pragmatic approach<sup>▲</sup>

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### 1. Introduction:

Dependence on space systems has been on increase due to the exceptional services they provide to human kind on various application needs. Space based services for telecommunications, television broadcasting, navigation, weather forecasting, natural resources survey and management, environmental monitoring and control; enhanced warning systems for natural disasters and so on are utilized invariably by most nations of the globe, regardless of their economic or technological status. Today, space systems have become an integral part of not only a civilized society but also a modern military architecture. The impact of space based services in our everyday lives is felt more during the non-availability of such services even for a short while. Beyond civilian applications, satellite systems proved their significance in military applications, which of course was the basis for the onset of space activities in the cold war era. High resolution satellite imageries and secured satellite communication network along with positioning and navigation data form the strategic inputs for the planning of war-time or peacekeeping operations. The effective

use of high resolution satellite imageries for monitoring conflict trends and human security in the trans-boundary regions of countries<sup>1</sup> can be considered as a classic example under the concept of 'Space for Peace'. It is hardly to be emphasized that the gamut of Space activities- space technology and space systems development, launch and operational services, theme based/ specialized application services, commercial activities, infrastructure including human resources development and so on contribute significantly to the overall techno-socio-economic development of a nation.

The international space arena of the 21<sup>st</sup> century is very different from what it was in the early days of the space age, when a few States were the only actors. Almost 7000 satellites have been launched into outer space since its debut in 1957. As of April, 2009, total number of operating satellites in space is 888<sup>2</sup>, of which about 20% belong to military applications

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<sup>▲</sup> All the opinions expressed herein belong to the authors and do not represent those of their employer or their country. Any errors contained herein remain entirely the authors'.

<sup>1</sup> Conflict Trends, Issue 4 (2008)

<sup>2</sup> UCS Database as on April, 2009

category. As the areas of applications have grown manifold, so is the number of stakeholders. Today, more than 40 nations own and operate their own satellite systems. In broader sense, as many as 115 nations either own a satellite or have a share in one. These space activities are pursued by governmental bodies and non-governmental agencies operating on national and international levels.

The space environment apart from its natural harshness is becoming non-conducive to harmonious coexistence of artificial creatures deployed by the human kind for their own benefits. Human made anomalies in outer space, such as creation of large number of threatening space debris, crowding of vital orbital positions vis-à-vis exploitation of frequency and spectrum bands, enhanced military applications and development and testing of advanced strategic systems endanger the safety and security of space assets and raise security concerns to other countries. The basic tenets of UN Treaties and principles which are focussed on the peaceful uses of outer space for the benefit of humankind are under severe stress. The long term sustainability of space activities has become a major concern to international community, even after fifty years of successful space activities and their applications.

Though the silence of Outer Space Treaty [OST] on placement of conventional weapons in outer space has been construed by many nations as affirmative, it is strongly believed that practically no weapon has so far been placed in outer space. The

strategic defence policies pronounced in the recent times by a few other States also invariably address the threat of potential space warfare and proclaim their intentions in establishing Space Command and enhancing space defence capabilities<sup>3</sup>. The trend of ongoing activities might lead towards a potential arms race or create apprehensions and deficiency of trust. Thus the situation has been cautioning the space faring nations to work towards solutions for restoring 'Peace in Space'. Attempts by a few space faring nations to evolve a legal mechanism to prevent arms race in outer space and to ensure space security, in UN forums such as General Assembly, UN Committee On Peaceful Uses of Outer Space [COPUOS], UN Conference on Disarmament [CD] and other international forums, theme based conferences etc., do not seem to yield practical solutions, probably due to lack of trust amongst the stakeholders on intentions or perceptions. Transparency in one's own space activities and confidence on others activities are required among space faring nations. While reaching a treaty-based legal ban on placement of weapons is taking a turbulent path, various alternatives are also proposed by certain nations such as European Union and Canada.

Is the common minimum objective of humankind to seek fair and responsible

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<sup>3</sup> *Australia's Defence White Paper, 2009 - Defending Australia in the Asia Pacific Century-Force 2030; French white paper on defence and national security, 2008;*

space activities by every space faring nation, a distant or unrealizable dream? Fortunately, a few recent developments in the international space arena reflect a ray of hope. In the subsequent sections, it is attempted to indicate some of the international initiatives that were stalled for want of consensus, followed by the fresh initiatives that are being proposed and articulated at different forums. The responsibilities of every space faring nation in small steps towards the larger goal of achieving harmonious situation in outer space are also dwelt upon. The pursuance of Indian space programme for the peaceful uses of outer space for the benefit of humankind and its space security architecture are also outlined.

## **2. Recent developments:**

Before dwelling upon the recent developments, it is preferred to have a brief on some of the past initiatives of various nations at various forums. The topic of Prevention of Arms Race in Outer Space [PAROS] in UN Conference on Disarmament [CD] has been under debate since the formation of an ad-hoc Committee in 1985. The efforts of this Committee, which lasted till 1994, had made very little progress on negotiation of a treaty on PAROS, due to lack of consensus from major players. Resolution on PAROS has become an annual customary in the UN General Assembly proceedings. Following the abrogation of the Anti-Ballistic Missile [ABM] Treaty by USA, Russia and China jointly proposed a Working Paper in CD in 2002 on, 'Possible elements for a future

international legal agreement on PAROS', which culminated in to the submission of a draft treaty on PAROS, entitled, Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force against Outer Space Objects' [popularly known as PPWT], in 2008. However, this draft treaty could not be pushed on the contentions that it does not address to prevent the terrestrial based ASATs which are more serious to near term space security, vagueness in definition of terms such as 'space weapon', 'threat of force' and lack of verification protocols<sup>4</sup>. The intentions of the proposing States, which have strong hold on terrestrial based ASATs, were seriously doubted by critics as to weaken the advantageous position of USA in space based missile defence interceptors.

UN COPUOS generally do not address the issue of weaponization of outer space as it is mandated to deal on peaceful uses of outer space. Nevertheless, issue of space debris, which is no less harmful than an intentional space weapon to the space assets, was very rigorously pursued in its Sub Committees. The Draft Space Debris Mitigation Guidelines evolved by the S&T Sub-Committee, got adopted by the COPUOS in June 2007, and subsequently got passed through a resolution of UN General Assembly in 2008 is a major milestone. These guidelines addressing the measures to be considered for mission

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<sup>4</sup> *Theresa Hitchens - Saving Space: Threat Proliferation and Mitigation - Research paper to International Commission on Nuclear Non-Proliferation and Disarmament*

planning, design and operational phases of spacecraft and launch vehicle orbital stages are expected to be voluntarily adhered to and implemented by the Member States. However, the shortcomings of the system of voluntary adherence to the guidelines without effective coordination mechanisms has been witnessed through the recent collision of two spacecrafts owned by the two major space powers<sup>5</sup>.

Certain alternative approaches to the vexed issue of bringing a treaty on PAROS, were attempted by various international think-tank agencies. The concept of 'Code of Conduct' was strongly considered to be a viable alternative to a treaty in terms of acceptance and implementation. Henry L. Stimson Center, a non-partisan, non-governmental organization in USA, in collaboration with other NGOs from Russia, Canada, France and Japan had formulated a set of mutually agreed upon principles, under the title 'Model Code of Conduct for Responsible Space faring Nations', which basically addresses on the responsible actions in outer space and the methods of communications with each other.

Parallely, the European Union's initiative on space security culminated into the formulation of a draft code of conduct, which got approved by the EU Council on 8-9 December, 2008<sup>6</sup>. Subsequently, the EU proposed this draft code in the Conference

on Disarmament in early 2009 for discussions and comments by the international partners and space faring nations. The draft code, which aims at bringing guidelines on best practices on voluntary basis, relies on the following principles:

- The freedom of access to, exploration and use of outer space and exploitation of space objects for peaceful purposes without interference, fully respecting the security, safety and integrity of space objects in orbit;
- The inherent right of individual or collective self-defence in accordance with the United Nations Charter;
- The responsibility of States to take all the appropriate measures and cooperate in good faith to prevent harmful interference in outer space activities;
- The responsibility of States, in the conduct of scientific, commercial and military activities, to promote the peaceful exploration and use of outer space and take all the adequate measures to prevent outer space from becoming an area of conflict.

It is observed that this set of Code does not include the definitional aspects and monitoring mechanisms as compared to the other Code but offers a consultation mechanism.

While these efforts stand at various levels to get due support and progress,

<sup>5</sup> *Collision of operational Iridium 33 and defunct Kosmos 2251 on February 10, 2009*

<sup>6</sup> *Council of the European Union- PESC 1595 - CODUN 59 - Brussels, 3 December 2008 - No. 16560/08*

some recent developments in UNCOPUOS and UNCD, which promise some positive indications, are briefed below.

- **UNCOPUOS:** The proposal by France of an agenda item to the UNCOPUOS on 'Long Term sustainability of space activities' has been agreed to be taken up by the S&T Sub Committee under a multi-year work plan during 2010 – 2012/13<sup>7</sup>. The basis for this development is the initiative of France through an informal working meeting of the representatives of 20 space faring nations and international agencies in February, 2008, which discussed the possibility of ad-hoc Working Group to develop information exchange mechanisms and consensus based rules of behaviour for safe and secured space environment. The draft outline of the French proposal is believed to address *inter-alia* the issues relating to the operations in GEO and LEO and the cooperation between the government space authorities and commercial space operators. The multi-year work plan as given below offers a promising scenario.
  - 2010 - General exchange of views on present and future challenges facing outer space activities, as well as potential measures that could enhance the long-term sustainability of outer space activities, with a view to establishing a working group

open to all member States of the Committee.

- 2011 - Preparation of a report on the long-term sustainability of outer space activities and examination of measures that could enhance their long-term sustainability; preparation of a draft set of best practices guidelines.
- 2012/2013 - Continuation of consideration and finalization of the report and of the set of best practices guidelines for presentation to and review by the Committee.
- **CD:** The Conference on Disarmament through its 29<sup>th</sup> May, 2009 agreement on a new programme of the work<sup>8</sup>, has allowed establishing a Working Group under agenda item 3 entitled 'Prevention of an arms race in Outer Space to discuss substantively, without limitation, all issues relating to the prevention of an arms race in outer space. The break of 12 year standstill in CD is considered to be a momentous shift due to the change in US policy under President Obama's reign<sup>9</sup>. The change of space posture of USA especially on treaty based approach on PAROS, as posted on the official website of White House in April, 2009 drew international attention. The assertion made vide this policy note, as '*Obama-Biden administration to restore American leadership on space issues,*

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<sup>7</sup> Report of the Committee on the Peaceful Uses of Outer Space – 64<sup>th</sup> Session(2009)— A/64/20

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<sup>8</sup> Supra note at 4; Conference on Disarmament- CD/1863, 19<sup>th</sup> May, 2009

<sup>9</sup> Supra Note at 4

*seeking worldwide ban on weapons that interfere with military and commercial satellites. ..., however*’ got moderated in May, 2009 as *‘... we will cooperate with our allies and the private sector to identify and protect against intentional and unintentional threats to US and allied space capabilities’*<sup>10</sup>.

Further, a working paper<sup>11</sup> submitted by Canada to the Conference on Disarmament in June 2009, on the ‘Merits of certain draft Transparency and Confidence Building Measures [TCBMs] and Treaty proposals for Space Security’ suggests for *‘drafting hard security guarantees first, as a soft declaration of legal principles’*, finds a midway between non-binding TCBMs and a Treaty. It argues for security guarantees to be considered by the CD and the practical safety and sustainability measures for space activities to be considered by COPUOS.

The initiative presented by Ambassador **Ciro ARÉVALO YEPES**, Chairman, UNCOPUOS, towards formulating a UN Space Policy<sup>12</sup>, at the 2009 session of UNCOPUOS is worth considering. The reasons put forth include - Stable order in orbits, Integrated approach to the use of Space, Necessity to establish a supportive environment for new space users and space faring countries and Utilization of space for the benefit of all humankind. The guiding principles suggest for fair and responsible use of space environment, besides stressing on the general tenets on

peaceful use of outer space, international cooperation etc.

Further, the testimony of Secure World Foundation (SWF) an international private foundation pursuing on securing sustainable use of space for the benefit of humankind, to the House Committee on Science and Technology, USA<sup>13</sup> in April, 2009 draws our attention. This testimony under the title, ‘Keeping the space environment safe for civil and commercial users’ proposes the enhancement of the scope of Space Situational Awareness (SSA)<sup>14,15</sup> to civil space services also, which has been all along under the military space domain of USA. Through this testimony, SWF asserts that SSA is vital to the continued long term use and sustainability of Earth orbit and there are civil and commercial requirements and uses for SSA data. It further articulates that an SSA system needs to combine multiple data sources, including ground and space-based

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<sup>13</sup> *Hearing of the Sub-Committee on Space and Aeronautics on 28<sup>th</sup> April, 2009*

<sup>14</sup> *USSTRATCOM defines Space Situation Awareness (SSA) as “the requisite current and predictive knowledge of space events, threats, activities, conditions and space system (space, ground, link) status, capabilities, constraints and employment – to current and future, friendly and hostile – to enable commanders, decision makers, planners and operators to gain and maintain space superiority across the spectrum of conflict.”- USSTRATCOM Space Control CONOPS, 2004 – As quoted in ‘Environmental Space Situation Awareness and Joint effects, Lt.Col. Kelly J. Hand, Maj. Richard Benz et.al.*

<sup>15</sup> *The European Space Agency (ESA) defines SSA in much wider terms as SSA would include the awareness of threats from asteroids, solar flares, etc., i.e. « astronomical threats’. –Space Situational Awareness and International Policy, Laurence Nardon-Document de travail-14,IFRI, October 2007.*

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<sup>10</sup> *Ibid*

<sup>11</sup> *CD/1865 Dt 5<sup>th</sup> June 2009*

<sup>12</sup> *ESPI Perspectives No 23, June 2009*

sensors, satellite owner-operators, and space weather data and calls for international participation and engagement.

Do these international developments, which offer a more conducive situation to progress towards bringing Peace in Space, provide a sense of complacency to the space faring nations? Strictly speaking, they only enhance the onus on the space faring states to put individual and collective efforts to reach the end goal. A shared sense of urgency and political will are indispensable, which can best be nurtured through partnerships, as called by the Director General of the UN Office at Geneva in June, 2009<sup>16</sup>. Some of the measures taken in small steps by States concerned which could contribute immensely are outlined in the subsequent part.

### **3. 'Fair and Responsible use of Outer Space' by Space Faring Nations :**

The ever growing order of global space activities in terms active partners, users, application areas pose a sense of caution to the global space community in order to sustain on a long term basis. As observed by Gérard Brachet<sup>17</sup>, there are three interconnected motivations for a State to invest in space activities - *Scientific research/ Exploration/ Discovery, Applications to society's needs and Security*

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<sup>16</sup> *Opening remarks by Mr. Sergel A. Ordzhonkidze, UN Under Secretary General and DG of UNOG, in the session on "Space Security 2009: Moving towards a safer space environment" on 15<sup>th</sup> June, 2009.*

<sup>17</sup> *Gérard Brachet - 'Global Governance of Space Activities', McGill University, IASL, May 06, 2009*

*and Defense.* It is imperative that the space faring nations should maintain a balance of rights and responsibilities, which are well enshrined in the Outer Space Treaty and other UN Treaties on international space law. While the international efforts to reach an acceptable solution through a legally binding treaty or a consensus based code of conduct, every space faring nation can adopt certain voluntary measures at national level, which can certainly contribute to the common objective. Some such measures for consideration of space faring nations are outlined below:

- A well-thought out space policy enumerating the objectives of the space activities, for the exploration and use of outer space for peaceful purposes.
- Instituting nationally suitable legal instruments and mechanisms for implementation of the national obligations under UN Treaties, debris mitigation guidelines and other related regulations in letter and spirit.
- Evolving a set of Code of Conduct, may be sui-generis, for its outer space activities, with an aim of aligning with the common Code of Conduct that is being pursued by other agencies and UN forums.
- Evolving 'Transparency and Confidence Building Measures' and practising in all space endeavours. To match with the theme of this session, namely, 'Peace in Space: Transparency and Confidence Building Measures', it is attempted to

enumerate little more on this topic in the ensuing sub-section.

- Fostering international cooperation in outer space activities
  - for expansion of scientific knowledge of the planet Earth, celestial bodies and the Universe,
  - sharing of scientific data so obtained with international scientific community
  - conduct of joint scientific missions of common interest
  - pursuance of joint long term technology missions of higher order such as human space exploratory / settlement / resources exploitation missions on mutual beneficial terms
  - participation in Space Situational Awareness services and studies and evolving measures for safe and secured Space Traffic Management. Collision avoidance, improved utility of GEO orbits, congestion of Sun Synchronous orbits, dangers to human rated crafts could be the areas of immediate concern for studies<sup>18</sup>.
- Contribution to development and sustenance of a better global governance of space activities, through appropriate measures at national level
- Contribution to the development of international space law
- A pledge on certain self restraining measures, such as, but not limited to -
  - 'No first placement or use of weapons in outer space'
  - 'No attempts of technological demonstrations that might violate the very concept of peaceful uses of

outer space with respect to debris creation or harmful interference to the space objects, space weather and celestial bodies'

- Adopting the course of preventive diplomacy<sup>19</sup> to tackle the potential threat of arms race in outer space.

Present day situation warrants the positive support and contributions of every space faring nation towards evolving suitable legal mechanism for the prevention of arms race in outer space in UN forums. The success of the Working Groups in CD and UNCOPUOS in reaching universally acceptable measures for the prevention of arms race in outer space and long term sustainability in outer space certainly depend largely on the support from every nation in general and space faring nations in particular.

#### **4. Transparency and Confidence Building Measures in Outer Space**

##### **Activities:**

The concept of TCBMs is an integral part of the international legal and institutional framework supporting military threat reduction and confidence building among nations. TCBMs in the context of international space law are already ingrained in UN Treaties in some form or other<sup>20</sup>. The Working Paper<sup>21</sup> submitted by Russia and China to Conference on Disarmament in 2006 on 'TCBMs in outer

<sup>18</sup> *Presentation on Space Traffic Management by ISU to S&T Sub Committee, UNCOPUOS, 2008*

<sup>19</sup> *Preventive Diplomacy is an universally accepted tool for settling the conflicts between the parties that might endanger the peace and security management.*

<sup>20</sup> *Articles IX, X, XI, XII of OST; Article VI of Convention on Registration of Space Objects ...*

<sup>21</sup> *CD/1778, Dt.22 May, 2006*



space activities and the prevention of placement of weapons in outer space' address the measures under three categories - measures aimed at enhancing more transparency of outer space programmes, measures aimed at expansion of information on outer space objects in orbits and measures related to the rules of conduct during outer space activities.

It is worth recalling the conclusions and recommendations part of the report of the Group of Government Experts prepared in 1993 under the aegis of UN<sup>22</sup>, as they provide a pedestal for proceeding further under the current scenario. Certain points<sup>23</sup> relevant to today's context are worth recalling, which are given below:

- Any space activity should be carried out in the interest of strengthening international peace and security.
- Transparency measures must be developed in such a way as to take into account the need for strengthening international confidence and protecting national security needs.
- In considering the confidence building measures in outer space, the different capabilities of states should be taken into account.
- International cooperation in the exploration and use of outer space is one possible confidence building measure.

- Development of sensitive space technologies having dual use applications should not be defined as harmful per se; but developed in accordance with internationally agreed provisions ensuring their non-diversion for prohibited purposes.

As observed by Andrey Makrov<sup>24</sup>, TCBMs in space activities have several dimensions. While, they contribute to better mutual understanding on the space activities of respective states and reduce the risk of suspicions and promote international cooperation, they also can be a part of verification mechanism of legally binding treaty, if realizable. Hence, the formulation and practice of TCBMS would be a gateway for realizing full-fledged space security architecture.

Under the envelope of TCBMs, wide range of measures and means of implementation are available to a space faring nation for implementation<sup>25</sup>, which are outlined below:

- Measures aimed at enhancing more transparency of outer space programmes
- Measures aimed at expansion of information on outer space objects in orbits
- Measures related to the rules of conduct during outer space activities

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<sup>22</sup> UN General Assembly Report No. A/48/305 Dt. 15<sup>th</sup> October, 1993

<sup>23</sup> Andrey Makrov- *Transparency and confidence building measures: their place and role in space security-UNDIR Report-Security in Space- The Next Generation, 2008*

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<sup>24</sup> *Supra note at 13*

<sup>25</sup> *Working Paper - CD/1778 Dt. 22 May, 2006 - submitted by the People's Republic of China and the Russian Federation to Conference on Disarmament*

These measures can be carried out through various means -

- Exchange of information on space policy, programme and applications, technical parameters on space objects.
- Demonstrations of space technologies and applications, including enabling of technical visits of other space agencies' personnel work centres and launch activities to the extent practicable.
- Notifications of planned and accomplished launch activities and orbital parameters of space objects and updates.
- Consultations on programmes as necessary and on ambiguous situations and issues of concerns
- Thematic workshops on research activities, application programmes and scientific results with participation of appropriate personnel from the partners.

It is understandable that TCBMs can not substitute Treaty based provisions; but, adopted as an intermediate measure and implemented in letter and spirit by the States, would certainly lead to establishment of Customary International Law, which offer legal sanctity to them.

##### **5. Indian approach to Space Security:**

The Indian space programme was born out of necessity through a visionary approach and pursued with a passion to serve the society of a developing nation at its infancy after its independence. Well thought-out application programmes taken

up on experimental basis were gradually scaled up to major operational programmes for a wide variety of applications, with appropriate infrastructure build-up. The policies and programmes were configured, pursued and implemented with a strong conviction on the principle of peaceful use of outer space for the benefit of mankind.

The space infrastructure built over four decades and the operational services it carries are very vital to the national development. Implementation of various national programmes on food, water, health, education, communication, environment and many other are largely supported by space based systems. Security of such critical infrastructure, their renewal and expansion as needed, and the uninterrupted, assured continuity of the operational services form the core of the Indian concern about the space security. The Indian space security architecture strongly relies on five elements which are outlined here below<sup>26</sup>:

- Self Reliance: Very consciously chosen path of self reliance for space activities in India, in the early stage itself, is a firm step towards securing access to space and gaining freedom from external threats of technology denials and other compulsions. Today many space faring nations seem to be attaching prominence to their space architecture.

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<sup>26</sup> Rajeev Lochan, '*Error! Main Document Only. Some Reflections on Collective security in Space*' - PP 33-46; *Collective Security in Space-Asian Perspectives* - John M Logsdon and James Clay Moltz- January, 2008

- Sustained unflinching support-base: Sustained support of the society for any national space policy and programmes is a prerequisite for a meaningful long term security in space. India's space programme oriented towards societal benefits thoroughly enjoy this special privilege conferred by various sectors of the society such as policymakers, lawmakers (cutting across the party lines), media, academia, industry and public.
- International Cooperation: It is an integral component of Indian Space Programme right from the formative years, which has offered mutual benefits to all the partners. More than thirty bilateral agreements with space agencies of various nations have been concluded under space cooperation for the exploration and peaceful uses of outer space. The Chandrayaan-1 mission is a classic example of international cooperation in space exploration activities. Equality and reciprocity for enhancing scientific knowledge of our planet and the universe and sharing of the knowledge amongst international scientific community are the basis for international cooperation. Vibrant international cooperation can become an instrumentality for security enhancements.
- The Rule of Law: Indian space programme is pursued under the legal ambit of international space law. India has ratified four major treaties of UN

and signed the Moon Agreement. Faith in the rule of law and compliance to such treaty obligations strengthens the national, regional and global security. The Indian view on its commitment to the rule of law for its outer space activities can be aptly understood from the excerpts of the statements made in UNCOPUOS and Conference on Disarmament, as given below:

- *'We would like to reiterate our commitment to the use of Outer Space for peaceful purposes. We favour development of legal principles and guidelines in the framework of the existing legal regime of space law for facilitating peaceful use and exploration of outer space by all countries, the developing countries in particular. We believe that it is the responsibility of every nation to maintain outer space exclusively for peaceful purposes, and refrain from trying new ventures that are violative of the very concept of peaceful use of outer space.'*<sup>27</sup>.
- *'There is a growing concern that current technological developments, in particular related to ASAT, may impact negatively on the present international legal framework on outer space. We therefore, support international efforts to reinforce safety and security of space based*

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<sup>27</sup> Excerpt from the statement of Indian Delegation in the 48<sup>th</sup> LSC of UNCOPUOS, March, 2009 under 'General Exchange of Views'.

*assets and to prevent the placement of weapons on outer space. There are number of proposals on the table, including a draft treaty tabled by Russia and China, which deserve further consideration.*<sup>28</sup>

- Security Commitments: Space has been determined to be a crucial component of national critical infrastructure in India. As mentioned in the initial part of this section, protection of the space assets including the ground support systems for sustenance of space based services is the prime commitment towards its own people and the entire humanity. Alternatively, self restraint on any sort of non-peaceful uses contributes to proliferation of peace in outer space. It would suffice to quote here Michael Krepon and Michael Katz-Hyman<sup>29</sup>:

*“Any nation that possesses medium range ballistic missiles, space tracking capabilities and the means to precisely insert a satellite into orbit also has the ability to destroy a satellite.”*

## **6. Conclusion:**

Space by its very unique nature enables the space systems to support a multitude of application services for the humankind. Having pursued the space

activities for more than 50 years, space activities are under the threshold of a transition. It is becoming imperative that security needs of a country are to be augmented with space systems support as part of strategic planning.

Ensuring space security for the benefit of humankind is a common responsibility of every space faring nation. Path of approach to sustain the outer space activities may be - *a consensus based Treaty to ban weaponization of space as a long term solution or a consensus based Code of Conduct for space activities as an intermediate measure or a conviction based code of conduct with rules of road and self restraints, as an immediate step.* The approach one might choose to follow may vary; nevertheless the end goal cannot be different from the very basic objective of restoring 'Peace in Space'.

**"Where there's a will, there's a way"**

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<sup>28</sup> Excerpt from the statement of Indian Ambassador in the Conference on Disarmament on Feb03,2009.

<sup>29</sup> Michael Krepon and Michael Katz-Hyman, "Space Weapons and Proliferation" in Conference Report of "Building the Architecture for Sustainable Space Security" 30-31 March 2006, p. 39.