

MILITARIZATION OF OUTER SPACE

LEGALITY AND IMPLICATIONS FOR THE FUTURE OF SPACE LAW

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ABSTRACT

Space based systems are increasingly used to provide an advantage in warfare, with the US at the forefront of this trend. US space policy arguably departs from one of the underlying principles of international relations; that self-restraint is an enlightened form of self-interest. By embarking on a course of space militarization an arms race in space is triggered. To win, the US has to rely on the uncertain superiority of its technology, intellectual capital and financial resources. As the US pursues its space militarization policy the principle of peaceful use of outer space will be undermined.

It has been argued that "peaceful use" in the context of outer space law means "non-aggressive" and not "non-military". In this paper it is argued that any military use of outer space will lead to a weakening of international law of outer space, diminishing any incentive for non-party nations to accede to or ratify the Outer Space Treaty and other space related international conventions.

To pursue its policy, the US will either have to withdraw from or breach relevant space treaties. Consequently it will not be able to rely on any legal constraints on its competitors, having effectively undermined the relevant international legal framework. Such US action will inevitably reduce the likelihood of other countries joining the

international space treaties and conventions.

BACKGROUND

As the major remaining space power, the United States will set the agenda and parameters of space activity. The position adopted by the United States will largely dictate the trends for international law of outer space. Therefore, US space policy is of central importance to the development of space law.

The US Space Command's policy statement, "Vision for 2020", argues that "the globalization of the world economy will continue, with a widening gulf between 'haves' and 'have-nots,' and that the Pentagon's mission is therefore to "dominate the space dimension of military operations to protect US interests and investments" in an increasingly dangerous and implicitly anti-American world¹. One crucial goal of policy should be "denying other countries access to space"².

The pursuit of this declared policy raises two questions. First, it has to be determined whether the military use of space is consistent with requirements of international law. Secondly, the legality of preventing other nations from using space is to be examined.

OUTER SPACE TREATY

MEANING OF PEACEFUL

The Outer Space Treaty³ ("OST") is the primary instrument of international

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space law, and specifies permitted uses of space. International law does not restrict all military use of outer space, as long as it is consistent with the ordinary rules of law, including, among United Nations (“UN”) members, the provisions of its Charter⁴.

Almost from the inception of the space era, in order to justify military activities in space, the United States has promoted the ill-founded argument that “peaceful” is synonymous with “non-aggressive”.

However, long-standing international law supports a definition of “peaceful” as “non-military”⁵. In this context, under the Outer Space Treaty⁶ it is clear that⁷:

1. ‘Peaceful’ means non-military, rather than non-aggressive⁸;
2. References to military installations, military maneuvers and so forth are exemplificative and not exhaustive; and
3. The possibility of using military personnel and equipment for research or other peaceful purposes in no way invalidates point 1 above.

The first-use of military power in outer space is per-se illegal, if undertaken without justification as outlined in the UN Charter⁹ (self-defense), or unless authorized by the Security Council¹⁰, as are nuclear and “weapons of mass destruction”¹¹.

If accepted, the US view, expressed as early as 1962¹², would have serious consequences not only for space law but also for many fields of international law¹³, where “peaceful use” is specified.

In addition, the US interpretation of “peaceful” as “non-aggressive” would only be relevant in an attempt to legitimize the military use of the Moon and other celestial bodies. Under the Space Treaty, military activity is permitted in what Professor Bin Cheng calls “outer void space”¹⁴. It is only on the Moon and other celestial bodies that no military activity is to be conducted.

SUBJECTIVE VERSUS OBJECTIVE TEST

It is well established that the determination of the nature of an activity is functional and not one of nominal status¹⁵.

The nature of an activity is judged by the function it fulfils and is independent of the label attached to it by the actor. It therefore follows that whether any activity of State is “peaceful” or otherwise is a factual question to be determined by objective criteria.

As Professor Bin Cheng observes: “That some States wish to give their legitimate activities some fancy description such as “beneficial”, “the greatest” or “peaceful”, is something which is quite immaterial to others, who are entitled simply to dismiss such action as eccentric, propagandist or simply as a case of legal malapropism. Neither the law nor their legal position can thereby be changed¹⁶.”

EXCLUDING OTHERS FROM SPACE

The intent of the United States to prevent other countries having access to outer space¹⁷ runs directly contrary to the OST¹⁸. Any attempt to exclude others is in effect an exercise of sovereignty over outer space or of the relevant parts

subject to such exclusion. Clearly, this too is unlawful under the OST¹⁹.

The intent to place in space weapons capable of attacking other space objects is not a defensive posture, there existing no threat to the US space objects by any other country. Therefore, it poses at least a threat of use of force, contrary to UN Charter Article 2(4)²⁰ and falls outside the self-defense provisions of the UN Charter²¹. A further area of potential concern is the current US stated policy of pre-emptive strikes against potential aggressors²². The uses of any space-based weapons in such attacks would also raise questions of legality under the UN Charter.

OTHER TREATIES AND AGREEMENTS

In addition to the UN Charter and the OST, several other international treaties and agreements to which the United States is party have a direct bearing on military activities in space. Some domestic laws also have an impact²³.

LIABILITY CONVENTION

The Liability Convention²⁴ assigns to the launching state absolute liability for damage caused on the earth or in the atmosphere by a space object²⁵ and liability for damage caused in space if it results from negligence²⁶.

The Convention's absolute liability provision could be the basis for claims against a state that launched weapons into space for any damage those weapons cause on earth or in the atmosphere. However, Article VI exonerates the launching state from absolute liability for damage that

“resulted either wholly or partially from gross negligence or from an act or omission done with intent to cause damage on the part of a claimant State”.

Acts done with intent to cause damage on the part of a claimant state would seem to include acts for which a launching state could reasonably claim the right of self-defense in using a space-based weapon. On that basis, the weapon launching state might go beyond asserting exoneration from absolute liability and claim reparations for the claimant state's belligerent acts. At worst, the launching state might claim reparations offsetting its liability for using the weapon. Alternatively, a state acquiring space weapons could choose to withdraw from the Convention with a year's notice²⁷.

Without certainty that as a user of a space weapon it would escape any liability under the Convention, it is possible that the US would withdraw from the Convention.

LIMITED TEST BAN TREATY

The Limited Test Ban Treaty²⁸ prohibits testing nuclear weapons in space. As a Party to the Treaty, the US can not lawfully test such a weapons in space. However, the current adverse attitude of the US the Comprehensive Test Ban Treaty²⁹ suggests it may withdraw from the Limited Test Ban Treaty.

ABM TREATY

Under the bilateral Anti-Ballistic Missile (“ABM”) Treaty of 1972 between the US and Russia, both parties undertook³⁰ “not to develop, test, or deploy ABM system or components which are...space

based”.

Additionally, each party undertook³¹ “not to interfere with the national technical means of verification³² of the other party” and “not to use deliberate concealment measures which impede verification by national technical means”.

In 2002 the US withdrew from the Treaty. This withdrawal supports the argument of those who assert that the US intends to and will use outer space for military and aggressive purposes³³.

REGISTRATION CONVENTION

The Registration Convention³⁴ requires each party to register with the United Nations each space object it launches, providing information on the space object’s designator, date and territory of launch, orbital parameters, and general function.

In practice such registration is done in general terms, and no satellites are designated for military use. Nevertheless, systematic breach of the Convention does not absolve members from its requirements. Furthermore, once purely military objects are put into earth orbit whose main function is as weapons, it will become increasingly difficult to designate them innocuously. The probability is that those objects will be improperly classified, making it more difficult to monitor activities in space.

MOON TREATY

The US has never been a party to the Moon Treaty³⁵, which elaborates on the provisions of the OST in relation to activities on the Moon and other celestial

bodies.

In particular, the Agreement provides that neither the Moon, nor any other celestial body, may be used to engage in any threat in relation to the Earth, the moon, spacecraft, the personnel of spacecraft or man-made space objects³⁶.

ITU CONSTITUTION

The International Telecommunications Union³⁷ Constitution provides the basic framework for the regulation of international telecommunications.

ITU Members undertake “not to cause harmful interference³⁸ to the radio services or communications” of other Members³⁹. For this provision to apply, the interference must come from a “station” and, it must affect the radio service or communications of another ITU Member.

The military radio installations Members’ army, naval and air force are exempt from many of the limitations of the ITU Constitution⁴⁰. However, this exemption for military radio installations does not release the Members from all the constraints of the Constitution. In particular, there is no exemption from the non-interference requirements of the Constitution⁴¹, which are at the heart of radio communications administration.

Although it may be argued that laser attacks and other methods of disabling radio communication systems are contrary to the Constitution⁴², the definition of “station”⁴³ in the ITU Radio Regulations could limit such argument, if it were confined to the transmission or emission of messages. However, all satellites are stations, to the extent that

they communicate with their TT&C⁴⁴ centers and equipment. Additionally, they will communicate the functions they perform, by signals or other intelligence.

It is strongly arguable that any military functions performed by satellites against other space objects is contrary to the ITU Constitution and Convention.

STRATEGIC ARMS REDUCTION TREATY

It is assumed that the US plans do not include placing nuclear or other weapons of mass destruction in space. If this assumption is or becomes incorrect, a range of other legal instruments will become relevant. Among them is START I⁴⁵, which prohibits even partial use of the Earth orbit for delivery of the subject weapons.

UNITED STATES DOMESTIC LAW

At least 20 countries have specific domestic legislation governing space-related activities, and more are in the process of adopting such legislation. In this context, the domestic space laws of the United States are of primary concern.

One such law is in the Crimes and Criminal Procedure legislation, which prohibits intentional interference with the operation of a satellite⁴⁶. Whether this prohibition applies to non-US satellites is open to argument. The operations protected are those which are "authorized", arguably under US law.

However, as a Member of the ITU, the US must recognize as authorized any satellites operating within the ITU regime. It would then follow that the prohibition will apply to all satellites

operating legitimately, whether under a US or a foreign license or authorization. Although the prohibition does not apply to law enforcement agencies of the US⁴⁷, it does apply to the military, and would cover attacks by space-based weapons.

CONCLUSION

It follows from the above analysis that any militarization of space by the United States will require US withdrawal from or changes to the international laws of outer space, and to US domestic law governing space activities. If the US persists in militarizing it will continue to withdraw from or disregard several treaties. It will do so despite the unanimous UN Resolution on International Co-operation in the Peaceful Uses of Outer Space⁴⁸ by which the US has joined other countries committing to peaceful uses of outer space, and prevention of a space arms race⁴⁹.

In itself a retrograde step, US withdrawal from space treaties will also have a chilling effect on the UN and IISL effort to promote ratification of space treaties among countries not already parties to them.

¹ Peter Teets, the director of the agency that controls military satellites, the National Reconnaissance Office (NRO), a former president of Lockheed Martin, has expressed the US concern that an adversary may choose to leverage the Global Positioning System or perhaps the Galileo constellation to attack American forces with precision. To prevent such an occurrence, according to Teets, beginning in 2004, the NRO will draw up negation policies to deny other nations, allies included, the use of near-Earth space. Joel Bleifuss, US: Militarization of Space, *CorpWatch, These Times*, September 3, 2003.

² See Joseph Kay, "Bush Administration Renews US Drive to Militarize Space", July 25, 2001, <http://www.wsws.org/articles/2001/jul2001/spac-j25_prn.shtml>; Rob Larson, "Space for Rent:

- A Free Society Militarizes Space”, August 23, 2001, <<http://www.independ.com/2001/Aug09.01/profit.html>>; “The Final Frontier: The US Military’s Drive to Dominate Space”, *Colorado Springs Independent*, December 13, 2001, <<http://www.csindy.com/csindy/2001-12-13/cover.html>>; and Theresa Hitchens, “US Space Policy: Time to Stop and Think”, *Disarmament Diplomacy*, no. 67 (October-November 2002).
- 3 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies; Signed 1967; 98 Parties (including the United States); 27 Signatories.
- 4 The most relevant provision of the UN Charter is Article 2, which provides:
- The Organization and its Members, in pursuit of the Purposes stated in Article 1, shall act in accordance with the following Principles.
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4. All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations.
- 5 See the Antarctic Treaty, Article I, and arguments on the meaning of “peaceful” in that Treaty by Bin Cheng in “Definitional Issues in Space Law: the ‘Peaceful Use’ of Outer Space, including the Moon and other Celestial Bodies”, *Studies in International Space Law*. See also footnote 8 below.
- 6 The relevant provisions of the OST are those in Article IV, which provide:
- States Parties to the Treaty undertake not to place in orbit around the Earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any other manner.
- The Moon and other celestial bodies shall be used by all States Parties to the Treaty exclusively for peaceful purposes. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military maneuvers on celestial bodies shall be forbidden. The use of military personnel for scientific research or for any other peaceful purposes shall not be prohibited. The use of any equipment or facility necessary for peaceful exploration of the Moon and other celestial bodies shall also not be prohibited.
- 7 Bin Cheng, “Definitional Issues in Space Law”, *Studies in International Space Law*, 1997, p 519.
- 8 The thirteenth session of the General Assembly, held in 1958, provided a forum for the debate on ‘Questions of the Peaceful Use of Outer Space’. During this session the term ‘peaceful’ was used as an antonym to ‘military’. Sweden appealed to fellow Member States to ‘safeguard outer space against any military use whatsoever’ and the Soviet Union put forward a proposal to ban the use of outer space for military purposes. The General Assembly adopted resolution 1348 (XIII), which recognized the ‘common aim’ of humankind that outer space ‘should be used for peaceful purposes only.’ [Quoted in M.S. McDougal, H.S. Lasswell and I.A. Vlasic, 1963, *Law and Public Order in Space*, New Haven, Yale University Press, p. 395. See also http://www.oosa.unvienna.org/SpaceLaw/gares/html/gares_13_1348.html.]
- 9 UN Charter, Article 51.
- 10 UN Charter, Chapter VII.
- 11 Weapons of mass destruction (WMD) are weapons designed to kill large numbers of people, typically targeting civilians and military personnel alike.
- Coined in 1937 to describe aerial bombardment, today they are often referred to as NBC weapons or ABC weapons, comprising:
- * nuclear weapons (including radiological weapons);
 - * biological weapon; and
 - * chemical weapon.
- 12 Statement by Senator Gore before the First Committee of the United Nations, representing The United States before the First Committee of the United Nations on 3 December 1962.
- 13 Bin Cheng, “Definitional Issues in Space Law”, p 513.
- 14 Bin Cheng, “Definitional Issues in Space Law”, p 517.
- 15 Bin Cheng, “Definitional Issues in Space Law”, citing *Opinion Construing the Phrase “Naval and Military Works or Materials” as Applied to Hull Losses and Also dealing with Requisitioned Dutch Ships* (1924), per Edwin Parker, United

- States-German Mixed Claims Commission (1922).
- 16 Bin Cheng, "Definitional Issues in Space Law", p 520.
- 17 "It's never been about defense. It's always been about controlling space, dominating space, denying other countries access to space, and the US being the master of space. And that isn't a defensive posture". Terje Langeland quoting Bruce Gagnon, director of the Global Network Against Weapons and Nuclear Power in Space. "The Final Frontier: The US Military's Drive to Dominate Space", December 13, 2001; www.Cindy.com.
- 18 Article I provides: Outer space, including the Moon and other celestial bodies, shall be free for exploration and use by all States without discrimination of any kind, on a basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies.
- 19 Article II provides: Outer space, including the Moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means.
- 20 See footnote 4 above.
- 21 UN Charter Article 51 provides: Nothing in the present Charter shall impair the inherent right of individual or collective self-defense if an armed attack occurs against a Member of the United Nations, until the Security Council has taken measures necessary to maintain international peace and security. Measures taken by Members in the exercise of this right of self-defense shall be immediately reported to the Security Council and shall not in any way affect the authority and responsibility of the Security Council under the present Charter to take at any time such action as it deems necessary in order to maintain or restore international peace and security.
- 22 Other countries are already adopting similar policies. See statement by President Putin of Russia; *The Washington Times*, September 13, 2004, <http://www.washtimes.com/upi-breaking/20040913-104239-9091r.htm>.
- 23 The documents examined are in part based on "The Law Regarding Military Use of Outer Space", by David A. Koplow, A Paper for a roundtable discussion. Lawyers Alliance for World Security <http://www.lawscns.org> Space
- Policy Institute at George Washington University <http://gwu.edu/~spi/> November 13, 2002.
- 24 The Convention on International Liability for Damage Caused by Space Objects; Signed 1972; 82 Parties (including the United States); 25 Signatories.
- 25 Article II: A launching state shall be absolutely liable to pay compensation for damages caused by its space object on the surface of the Earth or to aircraft in flight.
- 26 Article III: In the event of damage being caused elsewhere than on the surface of the Earth to a space object of another launching state, the latter shall be liable only if the damage is due to its fault or the fault of persons for whom it is responsible.
- 27 Article XXVII.
- 28 The Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and Under Water; Signed, 1963; 117 Parties (including the United States).
- 29 Peter Beaumont, Bush Set to Flout Test Ban Treaty: Global Treaty Sidelined as Scientists Gear Up to Develop Next Generation of Weapons; *The Observer*, July 28, 2002; See also Comprehensive Test Ban Treaty at <http://www.ctw.org>.
- 30 Article V.
- 31 Article XII.
- 32 Understood to include photoreconnaissance and other satellite-based sensors.
- 33 In his press conference following the US withdrawal from the ABM Treaty on December 13, 2001, Secretary of State Colin Powell adopted an active tone stating that "it is not a threat against [China's] strategic deterrence. It will be a system that goes after those irresponsible rogue states that might come up with a couple of missiles and threaten us, and we have to be in a position to deal with that". [Emphasis added]. See Missile Defense: Official Statements on ABM Treaty Withdrawal, *Council for a Livable World*, December 17, 2001.
- 34 The Convention on Registration of Objects Launched into Outer Space; Signed, 1975; 44 parties (including the United States), 4 Signatories.

- 35 The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies; Signed, 1979; 10 parties (the United States has not signed), 5 Signatories.
- 36 Article 3(2): Any threat or use of force or any other hostile act or threat of hostile act on the Moon is prohibited. It is likewise prohibited to use the Moon in order to commit any such act or to engage in any such threat in relation to the Earth, the Moon, spacecraft, the personnel of spacecraft or man-made space objects.
- 37 The ITU has 189 Members, including the United States.
- 38 Harmful Interference: Interference which endangers the functioning of a radionavigation service or of other safety services or seriously degrades, obstructs or repeatedly interrupts a radiocommunication service operating in accordance with the Radio Regulations. ITU Constitution, Annex, Section 1003
- 39 Article 45(1): All stations, whatever their purpose, must be established and operated in such a manner as not to cause harmful interference to the radio services or communications of other Members or of recognized operating agencies, or of other duly authorized operating agencies which carry on a radio service, ... Section 197.
- 40 Article 48(1), Section 202.
- 41 Article 48(2) provides: Nevertheless, these installations must, so far as possible, observe statutory provisions relative to giving assistance in case of distress and to the measures to be taken to prevent harmful interference, and the provisions of the Administrative Regulations concerning the types of emission and the frequencies to be used, according to the nature of the service performed by such installations. Section 203.
- 42 Note that Article 45 is not specific as to the means by which interference is caused. Operation of a station in a manner that causes harmful interference is sufficient.
- 43 *Station*: One or more transmitters or receivers or a combination of transmitters and receivers, including the accessory equipment, necessary at one location for carrying on a *radio communication service*, or the *radio astronomy service*. ITU Radio Regulations.
Radiocommunication Service: A service ... involving the transmission, *emission* ... or reception of *radio waves* for specific

telecommunication purposes. ITU Radio Regulations.

Radiocommunication: Telecommunication by means of radio waves. Convention Annex, Section 1009.

Telecommunication: Any transmission, emission or reception of signs, signals, writing, images and sounds or intelligence of any nature by wire, radio, optical or other electromagnetic systems. Convention Annex, Section 1012.

- 44 Telemetry, Tracking and Control stations which monitor and direct the operations of a satellite.
- 45 Strategic Arms Reduction Treaty (START) I – The bilateral treaty on the Reduction and Limitation of Strategic Offensive Arms; Signed by the United States and Soviet Union, 1991. Article V.18 commits both parties “not to produce, test, or deploy...systems, including missiles, for placing nuclear weapons or any other kinds of weapons of mass destruction into Earth orbit or a fraction of Earth orbit”.
- 46 18 USC 1367. - Interference with the operation of a satellite
- (a) Whoever, without the authority of the satellite operator, intentionally or maliciously interferes with the authorized operation of a communications or weather satellite or obstructs or hinders any satellite transmission shall be fined in accordance with this title or imprisoned not more than ten years or both.
- (b) This section does not prohibit any lawfully authorized investigative, protective, or intelligence activity of a law enforcement agency or of an intelligence agency of the United States.
- 47 See 18 USC 1367(b), footnote 46 above.
- 48 Resolution adopted by the General Assembly; A/RES/58/89; 17 December 2003.
- 49 Para. 34: *Urges* all States, in particular those with major space capabilities, to contribute actively to the goal of preventing an arms race in outer space as an essential condition for the promotion of international cooperation in the exploration and use of outer space for peaceful purposes.