
Selected U.S. Laws and International Agreements on Military Uses of Space

SINCE THE BEGINNING of space exploration, national governments and international government organizations have sought to prevent space from becoming an arena of human conflict. They have sought to codify this desire into national and international law through a series of legal agreements that have attempted to prevent space from becoming a forum for national or international military confrontation. Most of these agreements have been done under United Nations (UN) auspices, and the UN's Office for Outer Space Affairs (UNOOSA) serves as a clearinghouse and monitoring mechanism for keeping track of these agreements. Some of these pacts have been bilateral agreements between militarily prominent nations like the United States and the former Soviet Union.

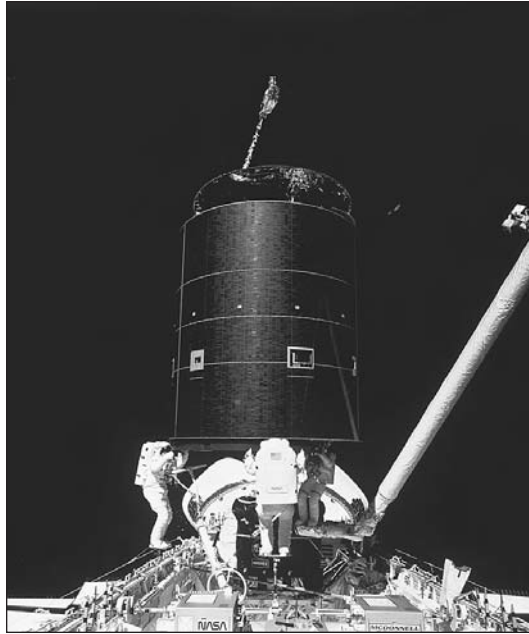
The quality, reliability, and viability of these and similar arms control agreements is controversial with different assessments of these agreements appearing in scholarly literature and political debate (Wallop, 1987). This chapter presents background information on these agreements and the contextual content when they were ratified. One of these agreements, the 1972 Antiballistic Missile (ABM) Treaty between the United States and the former Soviet Union is no longer in effect having been terminated by the United States in 2001. The other agreements remain in force.

These agreements are the Communications Satellite Act (1962), Limited Test Ban Treaty (1963), International Agreement on Peaceful Uses of Outer Space (1967), International Agreement on the Rescue of Astronauts, the Return of Astronauts, and the Return of Objects Launched into Outer Space (1968), Antiballistic Missile Treaty (1972), Liability Convention (1972), Registration Convention (1976), Moon Agreement (1984), and Ballistic Missile Launch Notification Agreement (1988).

Communications Satellite Act

The modern U.S. communication satellite industry began with congressional passage of the Communications Satellite Act (COMSAT) in 1962. This statute sought to establish

NASA astronauts repair an International Telecommunications Satellite in 1992.
(NASA)



a framework for providing a commercial satellite system to serve international economic needs and it enabled the United States to join with other countries in forming the International Telecommunications Satellite Organization (INTELSAT) to provide basic telecommunications services. These services including satellite television, wireless phone service, and broadband Internet access have revolutionized personal, commercial, governmental, and international economic and political activity.

This legislation remains applicable nearly four and half decades after its initial enactment. The United States remains heavily involved in international satellite organizations such as INTELSAT and International Maritime Satellite Organization (INMARSAT). The continuing and growing importance of satellite technologies in areas such as wireless communications, computer networking, space electronics, and other applications signify that COMSAT's impact will be felt by U.S. and international users of satellite communications services for the foreseeable future (U.S. Congress, Senate Committee on Commerce, Science, and Transportation, Subcommittee on Communications 1999; Lee 1977; Musolf 1983; Schnapf 1985; Galloway 1992).

Selected provisions from this important legislation include giving new telecommunication services maximum availability and global coverage as soon as possible with particular emphasis on providing these services to less developed countries; U.S. participation in this agreement occurring through a governmentally regulated private corporation; State Department assistance to U.S. businesses desirous of entering this emerging global marketplace; and the president being responsible for ensuring that U.S. relationships with applicable foreign and international commercial and governmental organizations are in U.S. national interest (Communications Satellite Act of 1962, 87–624).

Limited Test Ban Treaty

The Limited Test Ban Treaty, officially called “Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space, and Under Water,” was signed by the United States, Great Britain, and the Soviet Union in Moscow on August 5, 1963, and entered into force on October 10. The Test Ban Treaty prohibits nuclear weapons tests or other nuclear explosions in the atmosphere, outer space, and under water. Efforts to sign such a treaty began in May 1955 when the Subcommittee of Five (the United States, United Kingdom, Canada, France, and the Soviet Union) of the UN Disarmament Commission began discussions on this possibility (U.S. Department of State, Bureau of Verification, Compliance, and Implementation(a), n.d., 1).

Negotiations continued off and on for eight years until agreement was finally reached by the Americans, British, and Soviets on July 25, 1963, with the formal signing occurring in Moscow on August 5 by Secretary of State Dean Rusk (1909–1994), Soviet foreign minister Andrei Gromyko (1909–1989), and British foreign minister Lord Alexander Douglas-Home (1903–1995). The U.S. Senate ratified the treaty on September 24 by an 80–19 vote, President John F. Kennedy ratified it on October 7, and the treaty entered into force on October 10 when the three original signatories deposited their instruments of ratification (United States Department of State, Bureau of Verification, Compliance, and Implementation(a), n.d., 1–5).

The Limited Test Ban Treaty has lasted for over four decades and has been signed by 108 countries although France and North Korea are prominent nonsignatories. The treaty is an important pact because it represents the first international attempt to prevent the presence and testing of nuclear weapons in space and there are a number of different perspectives on the treaty’s significance and value (United States Department of State, Bureau of Verification, Compliance, and Implementation (a), n.d., 7–10; Broomfield 1965; U.S. Congress, Office of Technology Assessment, 1985; Oliver 1998; Wenger and Gerber 1999; Burr and Montford 2003; Schrafstetter and Twigge 2004).

Selected provisions of this treaty include prohibiting nuclear weapons tests in outer space or under water; the ability of participants to propose treaty amendments; and individual participants having the ability to withdraw from the treaty if they believe events have occurred that jeopardize their supreme national interests (U.S. Department of State, Bureau of Verification, Compliance, and Arms Control(a), n.d., 5–7).

This treaty has endured and become an important international arms control agreement. Like most international arms control agreements, though, it lacks enforcement and compliance mechanisms, and it is uncertain whether nations such as Iran, North Korea, or other nations or terrorist groups will adhere to it in the future.

Outer Space Treaty

This agreement is officially called the “Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial

Bodies,” and is commonly called the Outer Space Treaty (OST). OST was signed in Washington, London, and Moscow on January 27, 1967, and entered into force on October 10 of that year. The overall purpose of OST was that treaty signatories would not place nuclear weapons or other weapons of mass destruction in orbit around the earth or install such weapons on the moon, celestial bodies, or artificial satellites; that human use of the moon and other celestial bodies would be restricted to peaceful purposes and that they could not be used to establish military bases, installations, or fortifications; test weapons; or conduct military exercises; and that installations, equipment, and vehicles on the moon and other celestial bodies be open to representatives from treaty participants (U.S. Department of State, Bureau of Verification, Compliance, and Arms Control(b), n.d. 1–2).

Background for the OST began in August 1957 when Western countries such as the United States proposed developing an international inspection system for verifying the testing of space objects as part of international disarmament proposals. These proposals were rejected by the Soviet Union, which was testing its Intercontinental Ballistic Missile and about to orbit the Sputnik satellite. Such proposals continued in subsequent years and President Dwight Eisenhower, in a September 22, 1960 address to the UN General Assembly, proposed applying the principles of the Antarctic Treaty to outer space and celestial bodies.

Soviet disarmament objectives during the early 1960s included provisions for ensuring outer space was demilitarized. However, the Soviets would not separate space militarization from other disarmament uses and refused to agree to restrict military uses of outer space unless the United States eliminated short-range and medium-range missiles at its foreign military bases.

The Soviet position changed after signing the 1963 Limited Test Ban Treaty and on September 19, 1963, Gromyko told the UN General Assembly that the Soviet Union desired to conclude an agreement prohibiting the orbiting of nuclear weapons-carrying platforms. This policy change, and subsequent U.S. and Soviet negotiations in the mid 1960s, eventually resulted in the OST as we know it. Ninety-one countries have signed OST as of April 2006 (U.S. Department of State, Bureau of Verification, Compliance, and Arms Control(b), n.d. 1–2; U.S. Congress, Senate Committee on Aeronautics and Space Sciences 1967; U.S. Congress, Senate Committee on Foreign Relations 1967; United Nations 1984; Menon 1988; Martinez 1998; Berry 2001; Sparling 2003; Riviera 2004).

OST has become a fixture of international arms control agreements over the last four decades. However, it has never been subject to a crisis testing its durability, its enforcement provisions are nonexistent, and it may require modification as countries and international government organizations such as the United States, Russia, China, and the European Community achieve more permanent and long-term presences in space during the upcoming century (United States Department of State, Bureau of Verification, Compliance, and Implementation(b), n.d., 2–6).

International Agreement on the Rescue of Astronauts, the Return of Astronauts, and the Return of Objects Launched into Outer Space

This agreement, known as the Rescue Agreement, was negotiated from 1962–1967 by the UN Committee on the Peaceful Uses of Outer Space’s Legal Subcommittee. A consensus agreement was reached by the UN General Assembly in 1967 through Resolution 2345 of the 22nd General Assembly, and the agreement entered into force in December 1968. The Rescue Agreement serves as a supplement to articles 5 and 8 of the OST. This agreement seeks to ensure that countries take all possible steps to rescue and assist astronauts in distress and promptly return them to their country of origin and that nations shall, if requested, assist countries seeking to recover space objects that have returned to Earth outside the territory of the launching state. A total of 88 countries have ratified and 25 have signed the Rescue Agreement as of January 1, 2006, and two international governmental organizations (European Space Agency and European Organization for the Exploitation of Meteorological Satellites) have stated they accept the Rescue Agreement’s rights and obligations (United Nations Office of Outer Space Affairs 2006(a), 1; U.S. Congress, Senate Committee on Aeronautical and Space Sciences 1968; United Nations 2002, 9–12).

The Rescue Agreement can be viewed as an international first responders’ agreement applied to outer space. Its provisions are eminently sensible and consistent with international law agreements on land, maritime, and aerial rescue and humanitarian assistance.

Antiballistic Missile Treaty

The Antiballistic Missile (ABM) Treaty was signed by the United States and the Soviet Union in 1972. Background for this pact began with the first round of the Strategic Arms Limitation Talks between these two countries in November 1969 and negotiations occurred until the treaty was signed on May 26, 1972. The ABM Treaty was ratified by the U.S. Senate on August 3, 1972, and entered into force on October 3 of that year (U.S. Arms Control and Disarmament Agency 1996, 110–114).

The ABM Treaty sought to limit Soviet and U.S. ballistic missile defense sites. Initially each side was limited to two missile defense sites, each having no more than one hundred interceptors. A 1974 protocol to the treaty reduced to one the number of missile defense sites each country could deploy, and theoretically, neither country could build a new missile defense site even if it closed the original site. The Soviets established a missile defense site at Moscow and the United States established its site at Grand Forks, North Dakota but closed the Safeguard ABM system there in February 1976 a few months after this system became operational (U.S. Missile Defense Agency n.d., 1).

The ABM Treaty experienced a contentious reception during its nearly three-decade life. Democratic U.S. administrations and the Soviet Union and its Russian Federation

Leonid Brezhnev of the Soviet Union (left) and President Richard Nixon (right) shake hands in Moscow during talks regarding the Anti-Ballistic Missile Treaty of 1972. The treaty was based on the desire of both nations to avoid nuclear war and was the first significant arms limitation treaty between the United States and the Soviet Union. (*National Archives*)



successor tended to support the treaty as being what they viewed as a cornerstone of strategic stability. In contrast, Republican U.S. administrations tended to be more critical of the ABM Treaty believing that it restricted the United States' ability to defend itself and its allies from emerging ballistic missile defense threats from countries such as the former Soviet Union and North Korea. Contentiousness over this treaty was often reflected in written assessments (U.S. Congress, Senate Committee on Foreign Relations 1987; Stutzle, Bhupendra, and Cowen 1987; Bunn 1992; Glynn 1992; Gray 1993; U.S. Congress, Senate Committee on Governmental Affairs, Subcommittee on International Security, Proliferation, and Federal Services 2000; Lee 2000; Wilkening 2000; Burr 2003; U.S. Congress, Senate Committee on Foreign Relations 2001; Ruse 2002; Sirak 2002).

This controversy reached its end on December 13, 2001 when the George W. Bush administration announced its withdrawal from the treaty, which took effect in July 2002. In making its withdrawal announcement, the Bush administration cited the emerging security threats noted above as its primary rationale but also pledged to continue working with Russia and other countries to combat weapons of mass destruction and their delivery mechanisms (U.S. Department of State 2001, 1–2).

The ABM Treaty was doomed from the start because it sought to restrict the ability of countries to defend themselves against nuclear missile attacks and codified the ethically dubious strategy of mutually assured destruction (MAD) into international security, strategic planning, and law. Further, it is remarkable that the ABM Treaty lasted as long as it did because of its grievous structural flaws. The Soviet Union's blatant violations of the ABM Treaty ensured that this pact was merely a scrap of paper, and the growing use

of ballistic missiles by countries such as Iraq, North Korea, and others during the 1990s ultimately would result in the United States making the decision to abrogate this treaty. This abrogation received a muted reaction from Russia.

Liability Convention

The Convention on International Liability for Damage Caused by Space Objects, or the Liability Convention, was negotiated by the Legal Subcommittee of the UN's International Committee on the Peaceful Uses of Outer Space between 1963 and 1972. Overall agreement on this pact was reached in 1971 through Resolution 2777 of the 26th General Assembly and the convention entered into force in September 1972 (United Nations Office on Outer Space Affairs 2006(b), 1).

The primary intent of this convention was making the country launching a spacecraft legally liable for paying compensation caused by its space objects on the earth's surface, to aircraft, or for damage caused to other space objects. The convention also establishes procedures for settling damage claims. A total of 82 countries have ratified the convention, and 25 have signed the Liability Convention as of January 1, 2006; the European Space Agency, European Organization for the Exploitation of Meteorological Satellites, and European Telecommunications Satellite Organization have also announced their acceptance of Liability Convention obligations (United Nations Office on Outer Space Affairs 2006(b); Christol 1980; Forkosch 1982; U.S. Congress, Senate Committee on Commerce Science and Transportation, Subcommittee on Science, Technology, and Space 1988; Hurwitz 1992; Bender 1995; Hwan 1995; Kayser 2001).

The Liability Convention performs a useful function in that it sets up provisions for providing legal redress and compensation for any individual, organization, or nation who incurs personal or financial injury from wayward space objects. With any legal issue, there is the possibility of frivolous lawsuits being filed or excessive awards given by an overzealous court. Nevertheless, this convention helps provide a legal framework for such issues to be resolved in a reasonably effective and just manner.

Registration Convention

The Convention on Registration of Objects Launched Into Outer Space, or the Registration Convention, has its beginnings in 1962 when the UN began keeping records of objects launched into outer space as a result of Resolution 1721B from the 16th General Assembly. The Registration Convention has been force since 1976, and 45 states have ratified the Convention, and 4 had signed it as of January 1, 2006.

The purposes of this pact require that launching states provide the UN with information on each space object they launch including the name of the launching state, a pertinent designator of the object such as its registration number, its basic orbital parameters, and general function (United Nations Office on Outer Space Affairs 2006(c), 1–2; Sundahl

2000; United Nations General Assembly, Committee on the Peaceful Uses of Outer Space, Legal Subcommittee 2005(a); United Nations General Assembly, Committee on the Peaceful Uses of Outer Space 2005(b).

A searchable database of this register is accessible at www.unoosa.org/oosa/osoindex.html. The Registration Convention is one of the most practical international space law agreements. It serves as an inventory of objects currently launched into space and in orbit and provides detailed and updated information on the location of these spacecraft. With such a database, it is possible that there may be omissions, and it is also possible that countries or organizations may consciously not list objects or craft they have launched into space. Despite these caveats, this searchable database is very helpful for determining which objects are in space and their countries of origin.

Moon Agreement

The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, commonly called the Moon Agreement, was prepared from 1972–1979 by the Legal Committee of the UN Office on Outer Space Affairs. It was adopted in 1979 by General Assembly Resolution 34/68, but it did not enter into force until Austria became the fifth country to ratify the Agreement in July 1984. The purpose of the Moon Agreement is to ensure that the moon and other celestial bodies are used exclusively for peaceful purposes, that their physical environments should not be disrupted, that the UN should be informed of any facilities established on these bodies, that the moon's natural resources are humankind's common heritage, and that international rules should be established to regulate the exploitation of these resources when such exploitation becomes feasible. Twelve states have ratified and an additional four have signed the Moon Agreement as of January 1, 2006 (United Nations Office on Outer Space Affairs 2006(d), 1; U.S. Congress, Senate Committee on Commerce, Science, and Transportation, Subcommittee on Science Space and Transportation 1980; U.S. Congress, Senate Committee on Commerce, Science, and Transportation 1980; Bogaert 1981; U.S. Congress, Office of Technology Assessment 1991; Hoffstadt 1994; Reynolds 1995).

Key Moon Agreement provisions include this agreement applying to other celestial bodies in the solar system besides the earth; that human activities on the moon must follow international law including the UN Charter; that using the threat of force on the moon is prohibited; that countries shall inform the UN, the public, and international scientific community of their moon exploration and use; that the moon's existing environmental balance should not be disrupted; and that individual countries should try to resolve moon-related disputes bilaterally or by other peaceful means (United Nations 2002, 27–35).

The Moon Agreement remains in force nearly a quarter century after its ratification. However, the absence of human moon activity since the U.S. Apollo missions of the late 1960s–early 1970s gives this pact limited value. This could change in the years to come if

U.S. plans to return to the moon in 2018 are realized and if China, Russia, or the European Union decide to pursue manned lunar missions in the years to come. The interaction of these powers on the moon would test the Moon Agreement's efficacy and viability.

Ballistic Missile Launch Notification Agreement

The Ballistic Missile Launch Notification Agreement is an agreement between the United States and the former Soviet Union that was signed at the Moscow Summit by Secretary of State George Shultz (1920–) and Soviet foreign minister Edward Shevardnadze (1928–) on May 31, 1988. The principal purpose of the agreement is reducing the risk of nuclear war through misinterpretation, miscalculation, or accident. The United States proposed that both sides give each other advance notification of planned launches of ICBMs and SLBMs. The Soviets agreed to this, and the agreement calls for both sides to give each other at least 24 hours notification of the planned date, launch, area, and impact area for any ICBM and SLBM. In addition, the agreement also calls for these launch notifications to be provided through Nuclear Risk Reduction Centers, which are communications links responsible for exchanging information with foreign governments to support arms control treaties and security enhancing arrangements (U.S. Arms Control and Disarmament Agency 1996; U.S. Department of State, Bureau of Verification, Compliance, and Implementation(c), n.d., 1).

Specific agreement provisions call for each side giving at least 24 hours advanced notice of the planned date, launch area, and area of impact for any strategic ballistic missile



A Trident intercontinental ballistic missile is launched from a submarine, the USS Nevada, on September 30, 1986. The launch was a demonstration. (U.S. Department of Defense)

launch; the quadrant of an ocean or body of water where a launch is supposed to occur; the geographic coordinates of the planned impact area or areas of reentry vehicles; and the size of the impact area (U.S. Arms Control and Disarmament Agency 1996, 348–349).

The Missile Launch Notification Agreement was strengthened in 2000 by a Memorandum of Agreement between the United States and the Russian Federation on June 4, 2000 on establishing a joint center for early warning systems data exchange and missile launch notifications. Provisions of this agreement signed by President Bill Clinton and Russian president Vladimir Putin include exchanging information on ballistic missile and space vehicle launches by each party; creating conditions for preparing and maintaining a unified database to exchange notifications on launches of these vehicles; exchanging information on ballistic missile launches from other countries that could threaten the United States or Russia or create strategic uncertainty and lead to misinterpretations of U.S. or Russian intentions; providing information on other launches or experiments that could disrupt each party's missile early warning systems; and delivering the necessary infrastructure to facilitate the operations of this agreement (*Weekly Compilation of Presidential Documents* 2000, 1280–1283).

The Missile Launch Notification Agreement remains in force, although it is unknown how current U.S.–Russian controversy over the proposed U.S. ballistic missile defense system will affect this agreement. This agreement does not apply to any other country including current and potential future possessors of ballistic missile arsenals such as China, India, Iran, North Korea, and Pakistan. Consequently, it is difficult to assess how useful this bilateral U.S.–Russian agreement will be as a template for future bilateral or multi-lateral missile launch notification agreements between the U.S. and other countries.

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PART 2
