

it may prohibit the use of nuclear fission as a means of space propulsion. To the extent that nuclear power sources operate by means other than “explosion” the Treaty does not prohibit their use. Finally, the Treaty also prohibits the use of nuclear explosions for non-testing purposes as well. Thus, for example though the creation of an electromagnetic pulse in space by means of a nuclear detonation may present strategic military advantage, particularly in an anti-satellite role, such an activity is forbidden by the Treaty.

The PTB Treaty does not contain any verification provisions but it may be assumed that it would be relatively simple to determine if a breach had occurred although it might be more problematic to determine the manner in which it occurred and the identity of the offending party.

Anti-Ballistic Missile (ABM) Treaty 1972⁵ and Protocol 1974⁶

The ABM Treaty limits the deployment, testing, and use of missile systems designed to intercept incoming strategic ballistic missiles. At the time of its adoption, the Soviet Union and the US believed that the best way to avert the possibility of a nuclear exchange was to render each side defenseless to a nuclear attack. Thus, with one exception, both parties agreed to prohibit the testing, development, deployment and use of ABM systems. The exception allows each side to maintain one ABM system either around its national capital, or an ICBM site. The treaty originally allowed two ABM systems having a radius of 150km or less. This was reduced to one by protocol of 1974.

Article V (1) provides that “[e]ach party undertakes not to develop, test, or deploy ABM systems or components which are sea-based, air-based, space-based, or mobile land-based.” This provision still permits development, testing and deployment of fixed land-based systems, albeit limited to certain geographical areas in continental US and former USSR. Research is permitted by the Treaty.

Article II defines an ABM system as a system to counter strategic ballistic missiles or their elements in flight trajectory and lists the components of an ABM missile system. The parties also agreed, in Statement D, that in the event ABM systems “based on other physical principles including components capable of substituting for ABM interceptor missiles, ABM launchers, or ABM radars” were created, specific limitations on such systems and their components would be subject to discussion. At the time the agreement was reached the term “other physical principles was generally understood to encompass lasers, infrared sensors and particle beam technology. Despite past attempts to “broadly interpret” the ABM Treaty, the weight of legal opinion is that Agreed Statement D does not provide a loophole for testing such advanced ABM systems in space.⁷

⁵ Treaty Between the USA and the USSR on the Limitation of Anti-Ballistic Missile Systems. Treaties and other International Acts, Series 7503, (Washington: US Department of State, 1973). Signed on 26 May 1972; entered into force on 3 October 1972.

⁶ See Protocol to the Treaty between the USA and the USSR on the Limitation of Anti-Ballistic Missile Systems, 27 U.S.T. 1645, T.I.A.S. 8276. Opened for signature 3 July 1974; entered into force 24 May 1976. The Protocol specified that the US would not deploy an ABM system in the area centered on its capital, while the Soviet Union would not deploy an ABM system in the deployment area of its ICBM silo launchers.

⁷ For a detailed discussion on this issue, see Chayes, A. and Chayes, A.H., “Testing , (June 1986), pp. 1956-71 and Development of ‘Exotic’ Systems under the ABM Treaty: The Great Reinterpretation Caper,” 99 Harvard Law Review 1576 (1986).