

ENDNOTES

- ¹ Mark, Hans, “Warfare in Space,” in *America Plans for Space*, National Defense University Press, Washington, DC, June 1986.
- ² Papadopoulos, Dennis, “Satellite Threat due to High-Altitude Nuclear Detonations,” Presentation with the FAS Space Panel, July 10, 2003, Harvard University.
- ³ Greetsai, Vasily N., et. al., “Response of Long Lines to Nuclear High-Altitude Electromagnetic Pulse (HEMP)”, *IEEE Transactions on Electromagnetic Compatibility*, Vol. 40, NO. 4, November 1998, p. 348.
- ⁴ Wheelon, Albert D., “Surviving in Space,” Presented to the IEEE Nuclear and Space Radiation Effect Conference, Snowmass Village, Colorado, July 28, 1987.
- ⁵ Wheelon, Albert D. “Corona: The First Reconnaissance Satellites,” *Physics Today*, February 1997, p.30.
- ⁶ *ibid.*
- ⁷ Kislyakov, Andrei, “US Missile Shield Sparks Space Arms Race Danger,” *RIA Novosti*, Moscow, August 8, 2003.
- ⁸ *Satellite Encyclopedia*, List of states and organizations, as of July 2000.
- ⁹ Hughes, Peter C., “Satellites Harming Other Satellites,” *Arms Control Verification Occasional Papers No.7*, External Affairs and International Trade, Canada, July 1991.
- ¹⁰ Hastings, Daniel, Briefing to the panel, Washington, DC, 20 February 2003. See Appendix A.
- ¹¹ Nardon, Laurence, “The dilemma of satellite imagery control,” *Military Technology*, Moench Verlagsgesellschaft mbH, Bonn, July 2002.
- ¹² See <http://www.digitalglobe.com> for DigitalGlobe’s plans for an upgraded satellite in 2006.
- ¹³ Quoted in “Corona: the First Reconnaissance Satellites” by Albert Wheelon, *Physics Today*, February 1997, p.24
- ¹⁴ *ibid*, p.24.
- ¹⁵ *Ibid.* Appendix: Staff Background Papers. Wilson, Tom “Threats to Space Capabilities.”
- ¹⁶ *Ibid.*
- ¹⁷ *Ibid.*
- ¹⁸ *Ibid.*

- ¹⁹ Hays, Peter, “Military Space Cooperation: Opportunities and Challenges” in *Future Security in Space: Commercial, Military, and Arms Control Trade-Offs*, Monterey Institute.
- ²⁰ Garwin, Richard, in *Pugwash Workshop on Preserving the Non-Weaponization of Space*, Castellón de la Plana, Spain, 22-24 May 2003
- ²¹ For extensive information on small satellites, including a description of all, or almost all, small satellites ever launched, see the small satellites homepage at www.smallsatellites.org.
- ²² See SSTL’s homepage at www.sstl.co.uk/.
- ²³ See the CubeSat homepage at <http://cubesat.calpoly.edu/>.
- ²⁴ U.S. General Accounting Office, “Space Surveillance: DOD and NASA Need Consolidated Requirements and a Coordinated Plan,” GAO/NSIAD-98-42, December, 1997, p. 13.
- ²⁵ Orbiting Satellite Automatic Launcher Main Pages: <http://ssdl.stanford.edu/Opal/home.html>
- ²⁶ Craig Covault, “USAF Technology Satellite Plays Tag With GPS Delta,” *Aviation Week and Space Technology*, February 3, 2003, p. 39
- ²⁷ See Cheng Ho, “China Eyes Anti-Satellite System,” January 8, 2000, on the *Space Daily* website at www.spacedaily.com/news/china-01c.html. This story is based on an article that appeared in the *Sing Tao* newspaper on January 5, 2000.
- ²⁸ Postol, Theodore, Unpublished analysis.
- ²⁹ “High Risk in Low-Earth Orbit,” *Jane’s Defense Weekly*, 23 October 2002.
- ³⁰ Carlowicz, Michael J. and Lopez, Ramon E., *Storms from the Sun*, The Joseph Henry Press, Washington, DC, 2002, pp. 72-73.
- ³¹ Papadopoulos, Dennis, *Satellite Threat due to High Altitude Nuclear Detonations*, briefing to the FAS Panel, Cambridge, Massachusetts, 10 July 2003. (Appendix C, this report)
- ³² Mark, Hans, *op. cit.*, p.18
- ³³ Defense Threat Reduction Agency, *High Altitude Nuclear Detonations Against Low Earth Orbit Satellites (“HALEOS”)*, DTRA Advanced Systems and Concepts Office, April 2001, p.4.
- ³⁴ *ibid.*
- ³⁵ *Ibid.*, p.12
- ³⁶ *op cit.*
- ³⁷ “High Altitude Nuclear Detonations (HAND) Against Low Earth Orbit Satellites (HALEOS),” Defense Threat Reduction Agency, April 2001, p. 29.

- ³⁸ “High Altitude Nuclear Detonations (HAND) Against Low Earth Orbit Satellites (HALEOS),” Defense Threat Reduction Agency, April 2001, p. 13.
- ³⁹ “High Risk in Low-Earth Orbit,” Jane’s Defense Weekly, 23 October 2002; Rumsfeld Commission Report, 2001, p.22.
- ⁴⁰ Digital Globe, Inc., Press Release, Longmont, Colorado, 18 October 2001.
- ⁴¹ Nardon, Laurence, “The dilemma of satellite imagery control,” Military Technology, Bonn, Germany, July 2002.
- ⁴² Executive Summary, Report of the Commission to Assess National Security Space management and Organization, 11 January 2001, p.5.
- ⁴³ *ibid*, p.8.
- ⁴⁴ *ibid*, p. 10.
- ⁴⁵ *ibid*, p.10.
- ⁴⁶ *ibid*, p.12.
- ⁴⁷ *ibid*, p.16.
- ⁴⁸ *ibid*, p.17.
- ⁴⁹ *ibid*, p.13.
- ⁵⁰ For detailed information on FY’05 space related activities see Lewis and Cowan, Space Weapon Related Programs in the FY 2005 Budget Request, Center for Defense Information. Available at:
<http://www.cdi.org/news/space-security/SpaceWeaponsFY05.pdf>
- ⁵¹ Canavan, Gregory, “Space-based Missile Defense: Has its Time Come,” Informal remarks at the George C. Marshall Institute Roundtable on Science and Public Policy, May 16, 2001.
- ⁵² Lambakis, Steven, “Space Weapons: Refuting the Critics”, Policy Review, The Heritage Foundation, Number 105, February/March 2001.
- ⁵³ Hughes, Peter C. *op.cit*.