



Reaching Critical Will

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The Dirty Dozen

Lockheed Martin and aerospace profiteering

Lockheed Martin's missile defense contracts more than doubled between 2001 and 2004, from \$557 million to \$1220 million. Already a prime contractor in the growing aerospace industry, and with projects in space shuttle launches and space surveillance radar, it is not surprising that Lockheed Martin is profiting from the Bush administration's determination to dominate outer space.

Thanks in part to Lockheed Martin's board of directors member Edward "Pete" Aldridge and former chief operating officer Peter Teets, US military expansion into outer space has meant many new contracts for the company. Aldridge chaired the presidential commission responsible for flushing out Bush's space vision, while Teets is now the under secretary in charge of acquiring space assets for the US Air Force: "[Teets'] position was created in accordance with the recommendations of the Commission to Assess US National Security Space Management and Organization, an advisory panel that published its blueprint for the militarization of space just as Bush was taking office."

Many of Lockheed Martin's recent contracts have led to the development of technology that will be necessary for the future deployment of interceptors (such as missiles) and other space weapons, such as miniature electronics and propulsion systems. For example:

- 1. Lockheed Martin is under contract to the US Army Air and Missile Defense Program Executive Office for the production of Patriot Advanced Capability (PAC-3) Missile.** The PAC-3 is a "hit-to-kill" interceptor that smashes into incoming targets. Used in the Iraq war, these missiles are now being upgraded to increase their power for missile defense purposes.
- 2. The PAC-3 missile system will work in concert with Lockheed Martin's Terminal High Altitude Area Defense Weapon System, which controls missiles that can take out incoming missiles at ranges beyond the immediate defended area.** The PAC-3 will also be incorporated into Lockheed Martin's Medium Extended Air Defense System, which is a large system that provides surveillance, battle management, and communication for the US Ballistic Missile Defense system.
- 3. Lockheed Martin has also developed a thruster (launch device) for kill vehicles (objects which are used to smash into enemy objects in space).** It is designed for the US Missile Defense Agency's Multiple Kill Vehicle Payload System (for which Lockheed Martin is the prime contractor). This system is intended to be attached to an interceptor, which is then launched to intercept an incoming missile. The kill vehicles then separate from the main interceptor to take out multiple targets, such as the incoming missile's re-entry vehicle and any countermeasures the missile has on-board. The type of propulsion developed for the Multiple Kill Vehicle Payload System is similar to that which is required for a small satellite to maneuver close to an incoming missile for surveillance purposes.
- 4. Lockheed Martin applied this technology to the development of the Experimental Spacecraft System-11 (XSS-11).** In 2001, Lockheed Martin was granted a \$21 million contract to design, build, and fly the XSS-11, which is a 100 kg microsatellite that is able to "meet" with other space objects in

orbit, and maneuver close to them to inspect them or perform maintenance tasks. However, defense officials and technology experts agree that the XSS-11 could easily be used as an anti-satellite weapon: “The same capacity built into XSS-11 that enables it to maneuver around another satellite it is servicing can also allow the spacecraft to disable or destroy adversary satellites, if desired.” Theresa Hitchens of the Center for Defense Information in Washington and Jeffrey Lewis of Harvard University’s Belfer Center argue, “such a satellite could house a small kinetic-kill vehicle designed to smash into a nearby enemy satellite,” while an Air Force study “raised the possibility of borrowing technology from the Army’s Kinetic Energy Anti-Satellite, or KE-ASAT, program for its own microsattellites.” Lewis points out that the study’s “single strongest recommendation” was “the deployment, as rapidly as possible, of XSS-10-based satellites to intercept, image and, if needed, take action against a target satellite.”

John Pike, director of GlobalSecurity.org, points out that by building the XSS-11 “to be relatively cheap and easy to launch, it also may be expendable and replaceable in an anti-satellite role.” One anonymous defense official agreed that the XSS-11 “doesn’t need any modifications to kill a satellite . . . It’s capable of doing all the missions that KE-ASAT is intended to do -- and then some. That’s been proven in the flight test.”

5. Under subcontract to Boeing, Lockheed Martin provided the Payload Launch Vehicle for the Ground-based Midcourse Defense program. The Payload Launch Vehicle is used to fly Raytheon’s Exoatmospheric Kill Vehicle, which separates from the Payload Launch Vehicle once it reaches a specific point in space to go smash into its target.

6. Along with Boeing and Northrop Grumman, Lockheed Martin is also a member of the \$1.1 billion Airborne Laser team. The Airborne Laser is intended to destroy missiles right when they are launched, before the warheads separate from the missile.

7. Lockheed Martin is also the prime contractor for the Aegis Ballistic Missile Defense Program, part of the Sea-based Midcourse Defense System. The Sea-based system uses Lockheed Martin’s Aegis Weapon System, a radar and missile system capable of simultaneously attacking air, surface, and subsurface targets while defending against incoming aircraft and missiles. The Sea-based Midcourse Defense System currently includes 67 US Navy Aegis-equipped cruisers and destroyers.

Lockheed Martin says, “we never forget who we’re working for.” Yet, Lockheed Martin is the cornerstone of a now-classic American tradition: “allowing the interests of America to be subverted by the interests of corporate America.” Space experts have emphasized that it is in America’s best interests to keep space free from weapons—not only to protect civil and commercial satellites that US citizens rely on during their daily lives, but also to protect US military assets. The US military relies heavily on satellites that could easily be destroyed by the proliferation of weapons and warfare in outer space. In 2001, then-Commander of Space Command, General Ralph Eberhart, pointed out that if militaries start “blowing up things in space” the collateral damage may be too high. For example, he argued, “while trying to take out an enemy satellite capability, a KE-ASAT could inflict damage on US satellites.”

But with over \$1 billion of military space contracts a year, those risks probably appear negligible. Perhaps Lockheed Martin is counting on eventually receiving a contract to clean up the space debris.

This fact sheet was prepared by Ray Acheson of Reaching Critical Will, a project of the Women's International League for Peace and Freedom, in coordination with the Secure World Foundation.

<http://www.reachingcriticalwill.org/corporate/dd/ddindex.html>