Bush approves shoot-down of satellite by Navy missile cruiser

Patrick Martin
16 February 2008

In a provocative action that raises many questions about US preparations for war in space, President Bush has authorized the US Navy to shoot down a US spy satellite that is falling out of orbit and due to collide with the Earth soon. A Navy cruiser could fire a single missile from its Aegis weapons system as early as the end of next week, Pentagon officials said Thursday.

If the first missile fails to destroy the satellite, the Navy will evaluate the resulting trajectory and has additional ships in position to fire two more missiles, if that is deemed feasible.

General James Cartwright, vice chairman of the Joint Chiefs of Staff, and NASA Administrator Michael Griffin, who briefed the press on the plans, both claimed that the only reason for the shoot-down was to minimize the danger that debris from the satellite, particularly from its fuel tank, could injure or kill someone when it crashes to Earth.

Space scientists and critics of the administration's "Star Wars" effort to militarize space denounced these claims as preposterous, noting that no human being has been injured by any of the thousands of pieces of manmade debris that have fallen to Earth in the 50 years since the launching of Sputnik inaugurated the space age.

There are two considerations widely alleged to be uppermost in the minds of the Pentagon and White House: the danger that top-secret technology on board the failing satellite could be recovered by an adversary, and the opportunity to test out US anti-missile technologies on a live target.

The satellite, designated US 193, was launched in 2006 at the behest of the National Reconnaissance Organization (NRO), the secretive division of the Pentagon that conducts satellite surveillance of the entire globe. US 193 is believed to be one of the first to use a new imaging technology which the NRO would like to keep out of the hands of any potential US rival.

Cartwright dismissed any suggestions along this line, saying all equipment on board the satellite would be burned up during reentry. However, the web site Space.com cited a number of cases where complex on-board instruments have survived previous reentries and crashes. In at least one case, sensitive technology was recovered by a Peruvian peasant on a mountainside in the Andes.

Up until this week, US space officials had said that US 193 posed no danger to people on the ground and that, in particular, the volatile hydrazine fuel would melt and then burn up during reentry.

At Thursday's press briefing, however, NASA Administrator Griffin rewrote the scenario, suggesting that the fuel tank, filled with a half ton of liquid hydrazine that had frozen solid in the course of more than a year in the near-absolute-zero temperature in orbit, could serve as a buffer for the vehicle's reentry, allowing more of it to survive the estimated pressures of 25 times gravity. This would also, although he did not draw this conclusion, make survival and recovery of secret equipment on board more likely.

Whatever the likelihood of this outcome, the means chosen by the Pentagon and White House to dispose of the failing satellite—shooting it down with a missile launched by an Aegis-class cruiser in the north Pacific Ocean—is identical to the methods being developed by the US military for shooting down intercontinental ballistic missiles (ICBMs).

Under the revived "Star Wars" program which the Bush administration and Congress have financed to the tune of tens of billions of dollars, sea-launched missiles fired by Aegis-class cruisers north and east of Japan would be the initial line of defense against a nuclear-armed missile launched against the continental United States. The second line of defense would be land-based interceptors fired from stations in Alaska and California.

While the land-based missiles have rarely hit their targets, and are generally dismissed as unproven and a boondoggle for the US weapons industry, the sea-based interceptors have been deployed already, ostensibly against the threat of a missile launch from North Korea against Japan. These missiles, and the Aegis cruisers that launch them, have never actually operated in a non-test situation, against a real target. The anti-satellite strike is a way of carrying out such an

exercise.

Ivan Oelrich, vice president for strategic security programs at the Federation of American Scientists, told the press, “One could be forgiven for asking if this is just an excuse to test an anti-satellite weapon.”

Michael Krepon of the Henry L. Stimson Center, a Washington think tank supporting arms control, said, “There has to be another reason behind this. In the history of the space age, there has not been a single human being who has been harmed by man-made objects falling from space.”

The *New York Times*, in its news report, simply stated, “The effort will be a real-world test of the nation’s antiballistic missile systems and its antisatellite abilities, even though the Pentagon said it was not using the effort to test its most exotic weapons or send a message to any adversaries.”

The satellite US 193 differs from the usual test targets for the sea-launched missile since it is much larger—about two and a half tons—and at a much higher altitude. Navy missile technicians were said to be reprogramming the missile, designated Standard Missile 3, so that it could reach higher than its normal range of 100 miles above the earth, striking the satellite just as it reenters the atmosphere about 150 miles up.

Current plans call for the anti-satellite missile launch to take place after February 20, in order to avoid creating debris that could affect the return of the space shuttle Atlantis, now in orbit and scheduled to return on Monday, February 18. The satellite is otherwise expected to make an uncontrolled reentry on or about March 6.

International observers suggested that the shoot-down was a signal to Russia and China, two countries regarded by the Bush White House as the most potent long-term challengers to US military power.

In the case of China, the destruction of the satellite would demonstrate that the US possesses the same—or even greater—capability as demonstrated by the Chinese last year, when they shot down an aging weather satellite.

In the case of Russia, which has waged a furious campaign against the stationing of US anti-ballistic missile batteries in nearby Poland and the Czech Republic, it would signify that the United States will proceed with its plans for such systems regardless of protests by Moscow.

The action is particularly provocative because it was announced only two days after Russia and China jointly announced their support for a new treaty banning weapons in space. The treaty was presented to a Conference on Disarmament meeting in Geneva, with Chinese Foreign Minister Yang Jiechi declaring, “China hopes the Conference on Disarmament will enter into substantial discussion on the draft as soon as possible in order to reach a common consensus.”

Russian Foreign Minister Sergei Lavrov told the conference that “weapons deployment in space by one state”—referring to the United States—could cause “new spiral in the arms race both in space and on earth.”

The Bush administration immediately issued a statement denouncing the proposal and declaring that enforcing a ban on space weapons was “impossible.” White House spokeswoman Dana Perino said, “The United States opposes the development of new legal regimes or other restrictions that seek to prohibit or limit access to or use of space.” Two days later, the Pentagon made public its plans for the shoot-down.

The shoot-down could also have immediate practical consequences for all countries conducting space operations. Despite the Pentagon’s claim that the satellite is to be destroyed in order to prevent damage on the ground, a spokesman for the Union of Concerned Scientists predicted that the resulting explosion could produce 100,000 pieces of debris. This dwarfs the estimated 1,000 to 2,000 pieces of debris produced by the destruction of the Chinese weather satellite, which was much smaller than US 193.

The Chinese satellite was at a much higher altitude above the earth, over 600 miles, so the bulk of its debris is still in orbit and a danger to other space traffic. Since US 193 will be at 150 miles above the Earth when it is destroyed, most of its fragments will reenter the atmosphere immediately and burn up. But there are so many fragments that the number that are flung into higher orbits and survive could well exceed the debris of the Chinese test.