

Experts fear debris isn't the only fallout from satellite shoot-down

By Nancy A. Youssef, McClatchy Newspapers Thu Feb 21, 7:30 PM ET

WASHINGTON — A U.S. missile strike that appeared Thursday to have shattered a crippled spy satellite and vaporized its hazardous hydrazine fuel sent up cheers among Pentagon planners, who for three weeks had worked feverishly to turn an anti-missile system into one that could track and kill an object orbiting the Earth.

But even as debris from the shattered satellite began raining down over the Pacific Ocean, there were worries that the U.S. achievement might spur other nations to advance their own anti-satellite programs and turn outer space into a potential battlefield.

"I don't see how other nations don't see this as an anti-satellite test," said Theresa Hitchens, the director of the Washington D.C. -based Center for Defense Information, a centrist national security policy institute. "They'll see it as the weaponization of space."

China, which last year came under harsh U.S. criticism for using a missile to destroy an aged weather satellite hundreds of miles in space, was the first to react.

The Chinese Foreign Ministry issued a statement demanding that the United States share details of the shoot-down, which took place at approximately 10:26 p.m. Eastern time Wednesday as the satellite passed over the Pacific Ocean about 600 miles west of Hawaii. Secretary of Defense Robert Gates, on a visit to Hawaii, said the military would provide "appropriate" data to the Chinese.

Russia had no immediate reaction, though Russian President Vladimir Putin warned recently that the U.S. use of its anti-missile system against satellites would bring a response.

Hitchens said she believed that both China and Russia would use the U.S. destruction of the satellite as reason to step up development of their own anti-satellite weapons. China, she said, is "likely to use this as an excuse to

do what they wanted to do already." Russia , she added, "will come down hard on this."

For U.S. military officials, confirmation that the missile probably destroyed the satellite and its hydrazine tank came in two forms.

The first was a dramatic video— possibly shot from another satellite, though military officials wouldn't say— that showed the satellite as a small point of light. Suddenly, the light explodes into a fireball and then becomes a roiling, expanding cloud that military officials believe was the hydrazine vaporizing.

The second was tracking data that indicated that only football-sized debris remained from the 5,000-pound, bus-size satellite.

Marine Gen. James Cartwright , the vice chairman of the Joint Chiefs of Staff, said officials had a "high degree of confidence" that the missile had fulfilled its mission, which U.S. officials ordered out of concern that the hydrazine fuel tank would survive re-entry and land in a populated area.

It'll be several more days before the military can be certain that the missile struck the tank, Cartwright said. Evidence yet to be reviewed includes video from the missile itself moments before it struck the satellite, which failed hours after it was lifted into space in December 2006 .

Cartwright said that debris already had begun falling over both the Atlantic and Pacific Oceans near northern Canada , but that no piece had reached the Earth's surface and that it was likely none would.

President Bush authorized the shoot-down three weeks ago after the Pentagon and NASA raised concerns about the hydrazine.

The Navy's ship-based anti-missile defense system required adjustment to strike the satellite, which would be traveling faster than a ballistic missile and would be difficult to track because its lack of power made it cold and not easily visible to a missile's infra-red sensors.

Pentagon planners timed the shoot-down for late afternoon so that the sun would have warmed the satellite's surface.

Cartwright said there's little the military can learn from the shoot-down that could be applied to missile defense.

"It doesn't cross over," he said.

Loren Thompson , a defense analyst at the Washington D.C. area-based Lexington Institute , agreed, noting that most satellites' orbits are too high to be hit by ship-based missiles.