By Gabriel Catrache, Science News Editor

Crippled Satellite Left Little Debris

USA-193 destruction report released

Good news for NASA Orbital Debris Program Office. The destruction of the USA-193 spy satellite last month left a minimal field of debris in Earth's orbit, according to Rear Admiral Alan Hicks, responsible for the Pentagon's Aegis ballistic missile defense program. In the outcome of the report release, Admiral Hicks said: "We though there would be much larger pieces," however none of the debris left by the explosion was large than the size of a football. On 14 of February 2008, the U.S. Air Force launched a SM-3 missile to intercept and destroy the dead satellite. It was allegedly pointed towards the fuel tank of the satellite, although even now it is hard to believe that the projectile ever touched it. Traveling at a speed of about 35,200 kilometers per second, the SM-3 missile's primary objective was to destroy the fuel tank, so that the hydrazine propellant would spread into space. Minimizing the debris field was secondary. Albeit somehow the Pentagon achieved both. Only one year before, China made a hell of a mess after destroying one of its satellites while in a polar orbit 848 kilometers above the surface of the Earth. A later evaluation conducted by the U.S. Air Force Space Command revealed that the destruction of the Chinese weather satellite increased the debris in the respective orbit considerably, thus enhancing the risk of a potential collision to 40 percent. The report released by the Pentagon's missile defense program also shows that no debris has made it to the surface of the Earth until now. Admiral Hicks recognized that even though the Aegis missile defense systems is very flexible, this was only a one-time mission. During its whole span, 250 people were involved into planing and exercising the mission. Wide range radars and sensors helped to maximize the chance of the interception and minimize the debris left behind by the impact and explosion. However the biggest gain, says Hicks, is that they have learned, for the first time, how to use types of data sensors that usually do not work together. "When you bring them together, and you can coordinate them, integrate them, you can get a lot more value added," said Hicks.