## Delta II Launches Two Earth-Observing Satellites for NASA and Argentina, Plus a Swedish Nanosatellite

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Two earth-observing satellites and a nanosatellite designed to gather space weather data were launched into orbit today aboard a Boeing [NYSE: BA] Delta II rocket.

The rocket lifted off the launch pad at Space Launch Complex 2 at 10:24 a.m. PST, carrying spacecraft for NASA, Argentina, and Sweden. The two primary payloads were NASA's New Millennium Program Earth-Observing-1 (EO-1) satellite, plus Argentina's first earth-observing satellite, the *Satelite de Aplicaciones Cientificas-C* (SAC-C). The secondary payload was Sweden's *Munin* nanosatellite.

"Boeing was very pleased with the performance of the new Dual Payload Attach Fitting (DPAF)," according to Joy Bryant, Boeing mission director for this launch. "It did its job perfectly, allowing us to carry two distinctly different primary payloads -- with different mission and integration requirements -- for separate customers on the same launch."

Each spacecraft jettisoned on schedule: the EO-1 at approximately an hour after lift-off; the DPAF separable portion at approximately 1 hour, 10 minutes; the SAC-C at approximately 1 hour, 30 minutes; and the *Munin* at approximately 1 hour, 50 minutes.

NASA contracted with Boeing to develop the DPAF. In turn, Boeing worked with Astrium -- a European aerospace company with activities in France, Germany, and the United Kingdom -- to create the dispenser. The space agency wanted to be able to fly its small satellites on a reliable vehicle, Bryant said, and the Boeing Delta II rocket fit that requirement perfectly.

The DPAF allows Boeing to compete in a different class, with competitors' smaller Taurus and Athena rockets. Boeing has two additional launches at Vandenberg in 2001 that will carry dual primary payloads for customers.

The EO-1 is the first of NASA's three New Millennium program earth-orbiting missions. It is specifically oriented at the land remote-sensing technologies, spacecraft, and methodologies to be used in defining future landsat-type missions. Its three instruments are the advanced land imager, the Hyperion hyperspectral imager, and the Linear Etalon Imaging Spectral Array Atmospheric Corrector.

The SAC-C satellite, launched by the Argentine Commission on Space Activities, was designed to study terrestrial and marine ecosystems, measure space radiation and determine variability in the atmospheric structure, provide measurements of the geomagnetic field, and measure the long wavelength component of the gravity field.

The *Munin* secondary payload was designed and built by the Swedish Institute of Space Physics in cooperation with students at Sweden's Umea and Lelea universities. Its primary objectives include gathering space weather data, monitoring auroral activity, and serving as a testbed for autonomous monitoring satellites.

The Delta II is a medium-capacity expendable launch vehicle derived from the Delta family of rockets built and launched since 1960. The launch vehicle, which is assembled in Pueblo, Colo., is powered by the RS-27A engine built by Boeing in Canoga Park, Calif. Launch coordination and operations for the NASA mission is provided by the Delta launch team at Vandenberg Air Force Base, Calif.

Alliant Techsystems, Magna, Utah, builds the graphite epoxy motors for boost assist. Aerojet, Sacramento,

Calif., manufactures the second-stage engine. L-3 Communications, Teterboro, N.J., builds the guidance and flight control system.

Boeing Delta Web Site Media Kit

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