

SPACE SYSTEMS COMMAND Media Release



SPACE SYSTEMS COMMAND
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U.S. Space Force's Space Systems Command Completes CloudSat Operational Mission

SUMMARY: CloudSat improved predictions of weather and climate for nearly 18 years after launching as the Nation's first global survey in space of cloud profiles and cloud physical properties with seasonal and geographical variations.

EL SEGUNDO, Calif. – Space Systems Command's Innovation and Prototyping Acquisition Delta successfully completed the CloudSat mission after almost two decades of providing scientists with a deeper understanding of atmospheric conditions and providing key discoveries of weather patterns and precipitation observed from space. Space Systems Command's recently launched Weather System Follow-on Microwave (WSF-M) satellite from Vandenberg Space Force Base in northern Santa Barbara County, California will continue the U.S. Space Force's space-based environmental monitoring mission.

The CloudSat mission operated from the Research, Development, Test, & Evaluation Support Complex (RSC) at Kirtland Air Force Base, New Mexico, and was a joint partnership between the DoD Space Test Program (STP), United States Air Force (USAF), United States Space Force (USSF), Canadian Space Agency (CSA), U.S. Department of Energy Atmospheric Radiation Measurement (ARM) Climate Research Facility, Colorado State University Cooperative Institute

for Research in the Atmosphere (CIRA), Ball Aerospace & Technologies Corporation, and the National Aeronautics and Space Administration (NASA)'s Jet Propulsion Laboratory (JPL).

The CloudSat satellite used a cloud-profiling radar to measure the vertical structure of clouds from space, producing detailed images of cloud structures which contributed to a better understanding of cloud thickness, height, water and ice content, and the earth's climate. RSC space operators, alongside their NASA counterparts, controlled, monitored state-of-health, and collected satellite telemetry data from the satellite which was then distributed to the Data Processing Center (DPC) at Colorado State University in Fort Collins, Colorado.

"CloudSat was truly a huge success story and phenomenal partnership from Day One. Although the mission has come to an end, the scientific discoveries we captured will be helpful for many years to come in providing a better understanding of the earth's climate and improvements in weather forecasting," said Col. Joe Roth, director of the Innovation and Prototyping Acquisition Delta and commander of Space Systems Center, Detachment 1. "CloudSat goes down in the history books as the longest continuous mission ever flown from the RSC, and I am so proud of the RSC team for doing such a phenomenal job operating and maintaining this vital science and technology capability for nearly 18 years."

The satellite originally launched on a Delta II rocket from Vandenberg Space Force Base on April 28, 2006, and the final command to passivate the satellite was executed on March 20, 2024. The satellite is currently in its disposal orbit and is expected to burn up in Earth's atmosphere by 2049. Additional information and images captured by CloudSat are available in NASA JPL's online [Photojournal](#).

Space Systems Command is the U.S. Space Force's field command responsible for acquiring, developing, and delivering resilient capabilities and groundbreaking technologies to protect our nation's strategic advantage in, from, and to space. SSC manages a \$15.6 billion space acquisition budget for the Department of Defense and works in partnership with joint forces, industry, government agencies, academic and allied organizations to accelerate innovation and outpace emerging threats. Our actions today are making the world a better space for tomorrow.

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Media representatives can submit questions for response regarding this topic by sending an e-mail to sscpa.media@spaceforce.mil



Artist concept of NASA CloudSat spacecraft, which will provide the first global survey of cloud properties to better understand their effects on both weather and climate. (Courtesy image: NASA/JPL)



Members of the CloudSat team, pictured here, include representatives from U.S. Space Force, Space Systems Command, Kirtland Air Force Base, AI Solutions/POPS, Linquest/POPS, The Aerospace Corporation, and Jet Propulsion Laboratory. (Courtesy photo: NASA/JPL)