**Quick Facts**

**Launch date:** April 25, 2007  
**Launch location:** Vandenberg Air Force Base, California  
**Launch vehicle:** Pegasus XL  
**Mission target:** Upper atmospheric regions of the Earth  
**Primary mission duration:** Originally scheduled for 2 years  
**Project description:** AIM is designed to help us understand why polar mesospheric clouds (PMCs) form and why they vary, quantifying the connection between PMCs and the meteorology of the polar mesosphere.  
**LASP provides:**  
- The Cloud Imaging and Particle Size Experiment (CIPS)  
- The Cosmic Dust Experiment (CDE)  
- Management for the mission and control of AIM after launch  
**Other organizations involved:**  
- NASA’s Goddard Space Flight Center  
- Hampton University  
- Virginia Polytechnic Institute and State University  
- Orbital Sciences Corporation

**Frequently Asked Questions**

**What is the purpose of AIM?**  
The primary goal of the AIM mission is to help scientists understand why polar mesospheric clouds (PMCs) form and vary, and whether they are affected by the Earth’s changing climate. By measuring PMCs and the environment in which they form, AIM is able to quantify the connection between these clouds and the meteorology of the polar mesosphere. AIM results will thus provide researchers with a foundation for the study of long-term variability in the mesosphere and its relationship to climate change.

**What are Polar Mesospheric Clouds?**  
PMCs—also called noctilucent or “night-shining” clouds—are located about 82 km (50 miles) above the surface of the Earth. They are composed of water ice crystals that are less than about 100 nanometers in size. They form in the summertime at high latitudes and can only be seen from the Earth’s surface near twilight, when the sun is just below the horizon and the sky is dark. Changes observed in PMCs in recent decades are possibly related to human activities and their effects on the atmosphere.

**What do CIPS and CDE measure?**  
CIPS has four cameras that image the atmosphere to determine when and where PMCs appear, their brightness, and their particle size. CDE is a dust detector that measures the influx of cosmic dust to the Earth’s upper atmosphere to determine what role dust plays in the formation of PMCs.

To read more about the AIM mission, visit: http://lasp.colorado.edu/home/about/quick-facts-aim.