Boeing To Build Next-Generation Weather Instrument Under Potential $300 Million Contract

Boeing Satellite Systems (BSS) was awarded a $130.8 million contract today by the National Polar-orbiting Operational Environmental Satellite System (NPOESS) Integrated Program Office for two Conical Microwave Imager Sounder (CMIS) weather instruments. The contract includes options for up to four additional weather instruments for a total $298 million contract. BSS is a unit of The Boeing Company (NYSE: BA).

NPOESS is the next-generation low earth orbit environmental satellite system that will save the government $1.8 billion by converging existing systems operated by the Department of Defense (DoD) and National Oceanic and Atmospheric Administration (NOAA). CMIS is one of the weather instruments included on the six NPOESS satellites. The first CMIS instrument is scheduled for delivery by 2005 with the second to be delivered by 2007. The first NPOESS satellite is scheduled to be available for launch in 2008.

"Boeing has been deeply committed to advancing the technology that aids in prediction of weather and can ultimately save lives," said Randy Brinkley, president of Boeing Satellite Systems. "We are excited about the opportunity of making CMIS our third-generation weather instrument. With more than 100 years of accumulated weather experience, we have launched a weather satellite or sensor every three years for the last 20 years. This demonstrates BSS's heritage and commitment for meeting the weather satellite requirements for our customer," Brinkley added.

CMIS will be the first conical microwave imager/sounder to be carried on a U.S. civil weather satellite. CMIS will provide three times better resolution and the capability to detect more weather phenomena than previous weather instruments. The CMIS weather instrument will provide timely, accurate and cost-effective weather data for civilian, military, and scientific users.

Boeing CMIS Award 2-2-2

CMIS will be an "all weather" sensor with a microwave imager and sounder capability to provide 20 different environmental data records. The microwave imager channels help measure environmental data such as wind speed and direction over the ocean, and soil moisture. The sounder complements the data provided by the microwave imager in much the same way that three-dimensional mapping provides a more complete picture than two-dimensional mapping.

The CMIS sensor consists of three different subsystems: antennas; receivers; and data handling. The antennas gather microwave energy from the earth scene. The receivers divide the microwaves into numerous specific channels and measure the "brightness" of the earth within each channel. The data handling subsystem formats the weather data and other critical information for transmission to the ground. There, algorithms turn the data into maps showing such things as ocean temperature, ocean wind speed, and snow cover.

Boeing Satellite Systems is the world's leading manufacturer of commercial communications satellites, and is also a major provider of space systems, satellites, and payloads for national defense, science and environmental applications.

As prime contractor, BSS leads a team composed of Atmospheric and Environmental Research (AER), Inc., of Lexington, Mass.; Remote Sensing Systems of Santa Rosa, Calif.; Millitech of Northampton, Mass.; Honeywell Space Systems Division of Clearwater, Fla., and Integral Systems in Lanham, Md. The company's previous meteorological work includes the on-orbit experience gained from five Geostationary Meteorological Satellites (GMS) built for Japan, which were launched between 1977 and 1995; and the Geostationary Operational Environmental Satellites (GOES D through H) built for NASA/NOAA, which were launched between 1980 and 1995. BSS is currently under contract for the next-generation GOES satellites, designated "N" and "O," with options for "P" and "Q." GOES N is scheduled for launch in early 2003.

Boeing Satellite Systems' first-generation microwave sensors, the Special Sensor Microwave Imager (SSM/I) built for the U.S. Air Force's Defense Meteorological Satellite Program, have accumulated more than 35 years of flight experience. BSS' Tropical Rainfall Measuring Mission Microwave Imager (TMI), built for NASA's Goddard Space Flight Center, has been in service for more than three years. CMIS will follow in the footsteps of the successful SSM/I and is designed with lessons learned from TMI.

Boeing CMIS Award 3-3-3

The Boeing Company is the largest aerospace company in the world and the United States' leading exporter. It is NASA's largest contractor and the largest manufacturer of commercial jetliners and military aircraft. The company's capabilities in aerospace also include rotorcraft, electronic and defense systems, missiles, rocket engines, launch vehicles, satellites, and advanced information and communication systems. The company has an extensive global reach with customers in 145 countries.

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