

NASA to launch weather-climate satellite Friday

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The NASA Kennedy Space Center in Florida is seen in April 2011. The US space agency is preparing to launch a satellite Friday that will send back data on climate and weather to better help forecasters predict major storms and other changes in the environment.

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The \$1.5 billion National Polar-orbiting Operational Environmental [Satellite](#) System Preparatory Project (NPP) is expected to launch at 5:48 am (0948 GMT).

The weather at Vandenberg Air Force Base in California "remains flawless, calling for a 100 percent chance of acceptable conditions at

launch time," NASA said.

NASA scientists described the SUV-sized satellite as the first to provide observations for both short term [weather forecasters](#) and long term [climate researchers](#).

"In short, NPP is better observations for better predictions to make better decisions," NPP project scientist Jim Gleason said during a briefing with reporters on Wednesday.

The satellite will carry five instruments to study temperature and water in the atmosphere, how clouds and aerosols affect temperature, and how plants on land and in the ocean respond to environmental changes.

The satellite is one of 14 Earth observation missions currently being managed by NASA. Project managers said they hope it will operate for about five years.

"NPP will provide improved information to forecasters and emergency managers to better warn and prepare the public for severe weather events," said Mitch Goldberg, chief of the satellite meteorology and climatology division of the [National Oceanic and Atmospheric Administration](#).

"We expect to improve our forecast skills out to five to seven days in advance of [extreme weather events](#), including hurricanes."

Since NPP will circle the Earth at a height of 512 miles (820 kilometers) and will be in a [polar orbit](#), it will help fill in data gaps left by European [weather](#) observatories, NOAA scientist Louis Uccellini said earlier this month.

He said the satellite was carrying infrared and microwave instruments

that are "basically equivalent to a slight improvement over what we are using with the European satellites."

The European Space Agency last year launched CryoSat-2, the third so-called "Earth Explorer" satellite put into orbit by the agency in just over a year.

The Gravity field and Ocean Circulation Explorer mission launched in March 2009, and the Soil Moisture and Ocean Salinity mission followed in November.

All three missions are designed to study the effect of human activity on Earth's natural processes.

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