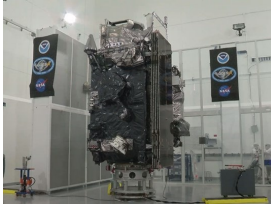


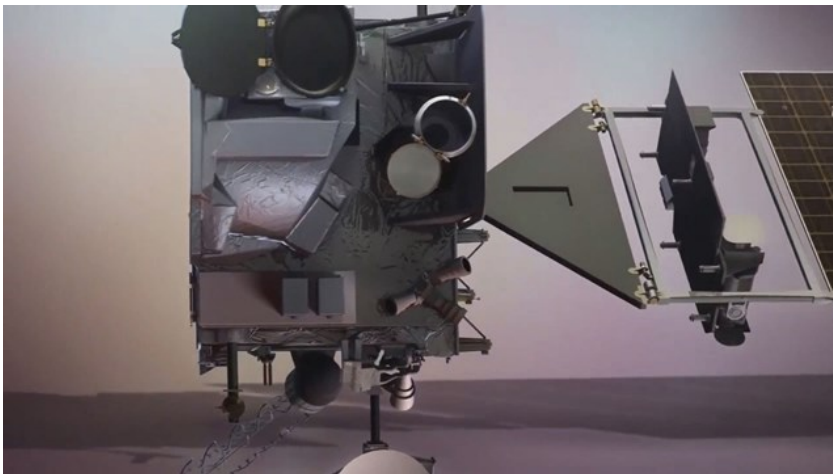
Investigators turn search to campus



KUSA - Considered the biggest upgrade in weather satellite technology in decades, the GOES-R satellite will finally get a chance to prove itself in space.

Last month, Hurricane Matthew's path near Florida, postponed the launch for the Geostationary Operational Environmental Satellite (GOES-R) weather satellite. Now, it's finally headed to space on Saturday, when it launches from Cape Canaveral.

"For the first time in 40 years, we're actually introducing a whole new, end-to-end introductions of new technology," said GOES-R Program Director Greg Mandt.



GOES-R satellite (Photo: NASA)

That means GOES-R will give forecasters a clearer sense of what the weather will do, as it unfolds. One new piece of technology is a lightning mapper, which will snap an image 200 times per second. Among its science instruments, it will also be carrying a special Colorado instrument onboard, which can tell us about weather happening far from Earth.

"Space weather is all activated by storms on the sun," said Dr. Thomas Woods, associate director of the Laboratory for Atmospheric and Space Physics at CU Boulder.

To better be able to predict that, LASP built an instrument onboard GOES-R called EXIS. Commissioned by NOAA, it's a \$100-million project for the university that's been in development for nearly 20 years.

"It's an instrument about the size of a microwave," Dr. Woods said, "and it looks at the sun continuously, with about a three second cadence, to look for these solar storms - when they start, how big they are and if they might arrive to Earth or not."

That's important because if those solar storms reach Earth, they can be highly disruptive - knocking out technologies we've come to rely on.

"It affects the power grid on the ground. It can affect communication to airplanes, if they have to re-route planes, it can affect even GPS," Dr. Woods said. "So, this is a new instrument for them."

There are other Colorado connections to GOES-R. Lockheed Martin built the satellite here in Colorado. It's set to launch on a rocket from Centennial-based United Launch Alliance on Saturday afternoon, at 3:42 MST, from Cape Canaveral, Florida.

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