New video shows arrival of Webb telescope 'Super-eye' at NASA

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A new NASA video gives viewers an up close view of the arrival of the James Webb Space Telescope's "Super-eye."

The Webb telescope's Near-Infrared Spectrometer, or NIRSpec, instrument arrived by truck at NASA's Goddard Space Flight Center in Greenbelt, Md., on Sept. 20, 2013, and NASA videographers documented it for everyone.

After its trans-Atlantic flight to Thurgood Marshall BWI airport, Baltimore, Md., on a specialized Russian transport plane from Germany, it was moved into the world's largest clean room for further testing. The instrument, built at the EADS ASTRIUM facility in Munich, Germany, is often referred to as the Webb telescope's "Super-eye." NIRSpec is Webb's instrument that will use infrared light to analyze the physical properties and chemical composition of distant galaxies, stars and planets.

The video shows NIRSpec after its meticulously coordinated delivery as it was unloaded off a truck, moved into a clean room and situated by engineers for inspection. It was created at the Scientific Visualization Studio at NASA Goddard.

It is the last of the Webb observatory's science instruments to arrive at NASA. At Goddard, each of the Webb's four science instruments will be added to the heart of telescope, known as the Integrated Science Instrument Module (ISIM). The Fine Guidance System/Near-InfraRed

Imager and Slitless Spectrograph (FGS/NIRISS) and the Mid-Infrared Instrument (MIRI) have already been installed on ISIM and are currently undergoing the first cryogenic tests.

"NIRSpec's delivery from Europe to Goddard is an amazing international accomplishment," said Maurice te Plate, European Space Agency's Webb system integration and test manager and ESA MIRI instrument manager at NASA Goddard.

NIRSpec is a unique instrument, made out of a very stable and stiff material called silicon carbide. It holds a special NASA-developed device called the Micro Shutter Array.

"The Micro Shutter Array, is a unique electro-mechanical mask that has never been flown in space before," te Plate said. "This part will allow the NIRSpec spectrograph system to measure light, sometimes very faint, of up to 100 scientific targets at the same time, while rejecting unwanted objects from its field of view."

More information: www.jwst.nasa.gov

Provided by NASA

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