

James Webb Space Telescope's 'chassis' gets taken out for a spin at NASA

March 9 2011, By Rob Gutro



The centrifuge at NASA's Goddard Space Flight Center, Greenbelt, Md. that will spin the ISIM. Credit: NASA/Chris Gunn

The Integrated Science Instrument Module, or ISIM, is the structural heart of the James Webb Space Telescope, what engineers call the main payload. It will house the four main scientific instruments of the telescope. The ISIM is like a chassis in a car providing support for the engine and other components.

Webb will undergo significant shaking when it is launched on the large Ariane V rocket. To be sure the telescope's "chassis" is ready for this "bumpy road," the ISIM is subjected to some extreme testing. During the testing process, the ISIM is spun and shaken while many measurements are taken. Afterwards, engineers compare the measurements with their models of the ISIM. If there are discrepancies, then the engineers track down why, and make corrections.



Engineers inspect the ISIM in a clean room at NASA Goddard. ISIM is the structural heart of the James Webb Space Telescope. Credit: NASA/Chris Gunn

Webb will be the first next-generation large space observatory and will serve thousands of astronomers worldwide. Designed to detect light from as far away as approximately 14 billion light years, Webb will study

every phase in the history of our Universe, ranging from the first luminous glows after the [Big Bang](#), to the formation of planetary systems capable of supporting life on planets like Earth, to the evolution of our own Solar System. The Webb telescope is a joint mission of [NASA](#), the [European Space Agency](#) and Canadian Space Agency.

Provided by JPL/NASA

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