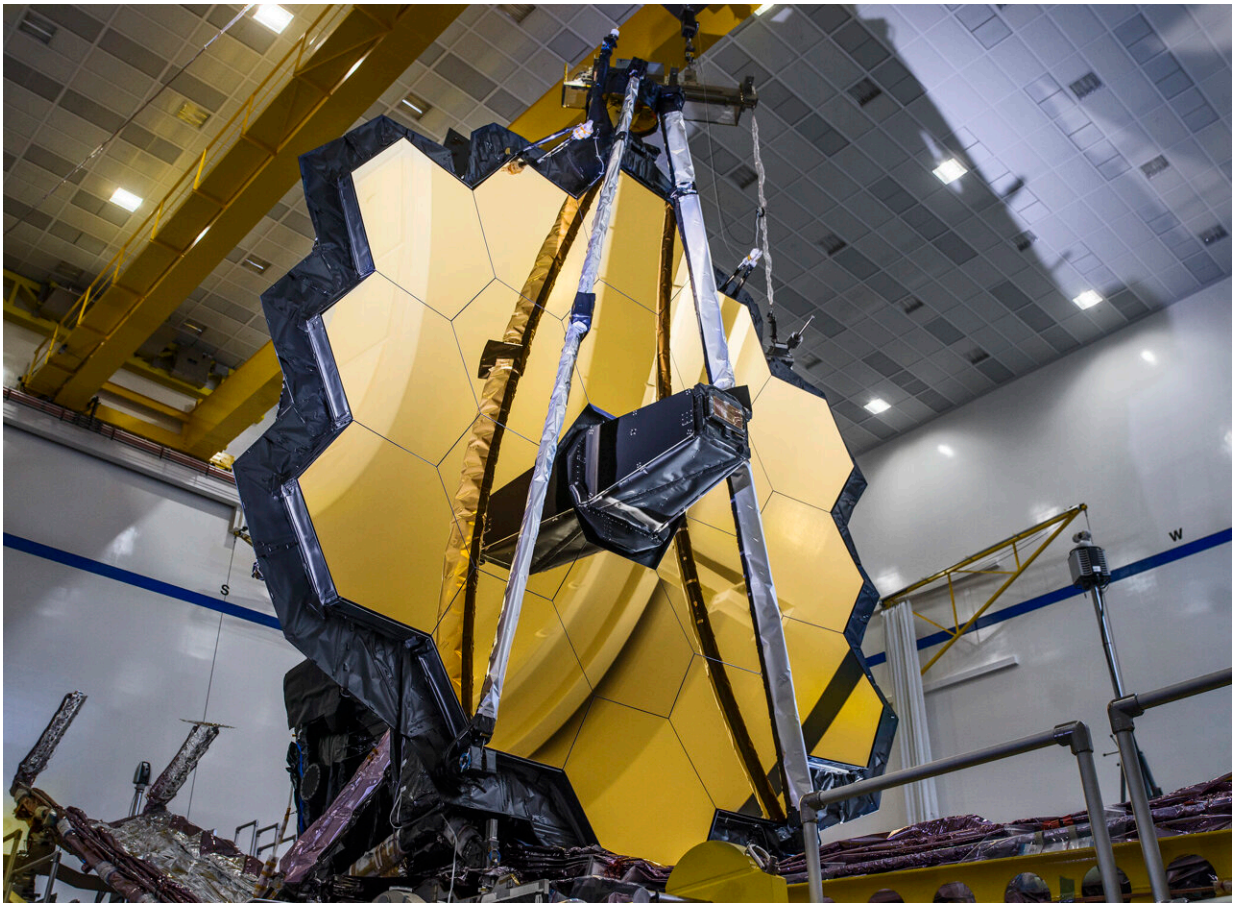


NASA shares list of cosmic targets for Webb telescope's first images

July 8 2022, by Thaddeus Cesari



File photo of the primary mirror of NASA's James Webb Space Telescope from March 2020, following a deployment test. Credit: NASA/Chris Gunn

NASA's James Webb Space Telescope, a partnership with ESA

(European Space Agency) and CSA (Canadian Space Agency), will soon reveal unprecedented and detailed views of the universe with the upcoming release of its first full-color images and spectroscopic data.

Below is the list of cosmic objects that Webb targeted for these first observations, which will be released in NASA's live broadcast beginning at 10:30 a.m. EDT (7:30 a.m. PDT) Tuesday, July 12. Each image will simultaneously be made available on [social media](#) as well as on the agency's website.

These listed targets below represent the first wave of full-color scientific images and spectra the observatory has gathered, and the official beginning of Webb's general science operations. They were selected by an international committee of representatives from NASA, ESA, CSA, and the Space Telescope Science Institute.

- **Carina Nebula:** The Carina Nebula is one of the largest and brightest nebulae in the sky, located approximately 7,600 light-years away in the southern constellation Carina. Nebulae are stellar nurseries where stars form. The Carina Nebula is home to many [massive stars](#) several times larger than the Sun.
- **WASP-96b (spectrum):** WASP-96b is a giant planet outside our solar system, composed mainly of gas. The planet, located nearly 1,150 light-years from Earth, orbits its star every 3.4 days. It has about half the mass of Jupiter, and its discovery was announced in 2014.
- **Southern Ring Nebula:** The Southern Ring, or "Eight-Burst" [nebula](#), is a [planetary nebula](#)—an expanding cloud of gas surrounding a dying star. It is nearly half a light-year in diameter and is located approximately 2,000 light-years away from Earth.
- **Stephan's Quintet:** About 290 million light-years away, Stephan's Quintet is located in the constellation Pegasus. It is notable for being the first compact galaxy group ever discovered in 1787.

Four of the five galaxies within the quintet are locked in a cosmic dance of repeated close encounters.

- SMACS 0723: Massive foreground galaxy clusters magnify and distort the light of objects behind them, permitting a deep field view into both the extremely distant and intrinsically faint galaxy populations.

The release of these first images marks the official beginning of Webb's science operations, which will continue to explore the mission's key science themes. Teams have already applied through a competitive process for time to use the telescope, in what astronomers call its first "cycle," or first year of observations.

More information: Details on how to join NASA for the release of Webb's first images is [available online](#). For more about Webb's status, visit the ["Where Is Webb?" tracker](#).

Provided by Jet Propulsion Laboratory

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