

Webb telescope uses powerful mirrors to detect distant light

September 17 2012



Credit: Ball Aerospace

(Phys.org)—The powerful primary mirrors of the James Webb Space Telescope will be able to detect the light from distant galaxies. The manufacturer of those mirrors, Ball Aerospace & Technologies Corp. of Boulder, Colo., recently celebrated their successful efforts as mirror segments were packed up in special shipping canisters (cans) for

shipping to NASA.

The Webb telescope has 21 mirrors, with 18 primary mirror segments working together as one large 21.3-foot (6.5-meter) primary mirror. The mirror segments are made of beryllium, which was selected for its stiffness, light weight and stability at cryogenic temperatures. Bare beryllium is not very reflective of near-infrared light, so each mirror is coated with about 0.12 ounce of gold.

Northrop Grumman Corp. Aerospace Systems is the principal contractor on the telescope and commissioned Ball for the optics system's development, design, manufacturing, integration and testing.

The Webb telescope is the world's next-generation space observatory and successor to the Hubble Space Telescope. The most powerful space telescope ever built, the Webb [telescope](#) will provide images of the first galaxies ever formed, and explore planets around distant stars. It is a joint project of NASA, the European Space Agency and the Canadian Space Agency.

Provided by NASA

Citation: Webb telescope uses powerful mirrors to detect distant light (2012, September 17) retrieved 12 May 2024 from <https://phys.org/news/2012-09-webb-telescope-powerful-mirrors-distant.html>

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