The Lewis Research Center
National Aeronautics and Space Administration
Cleveland, Ohio

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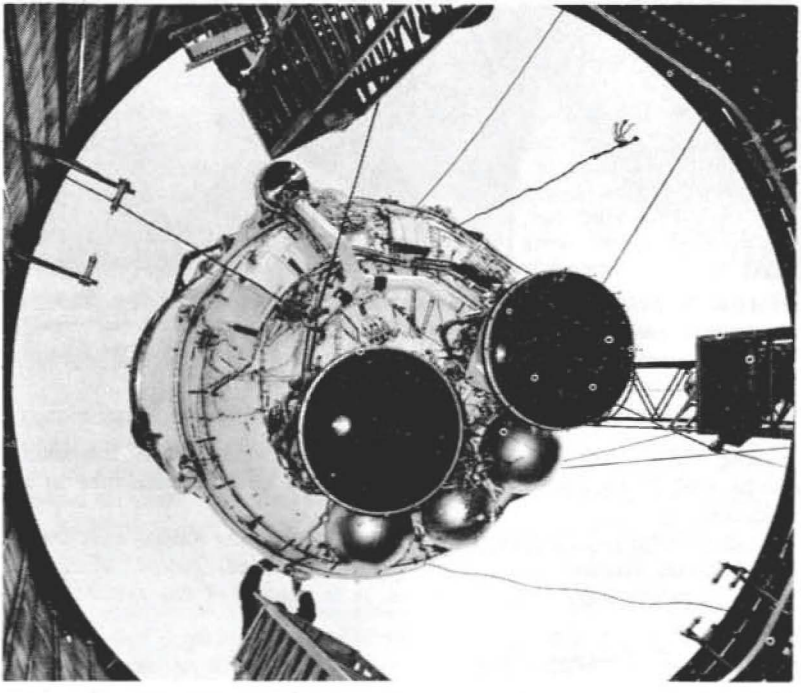
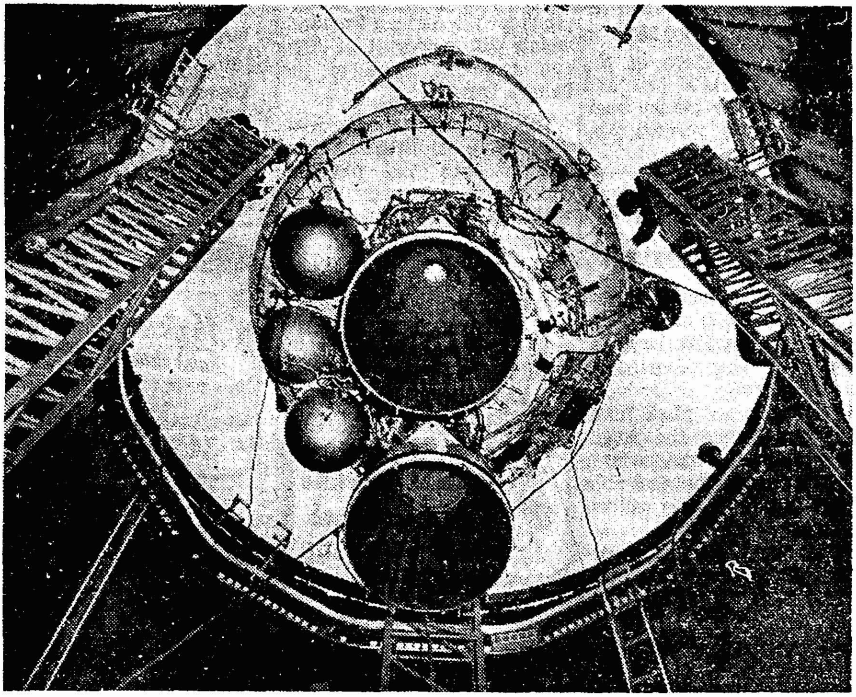
Centaur Into Chamber



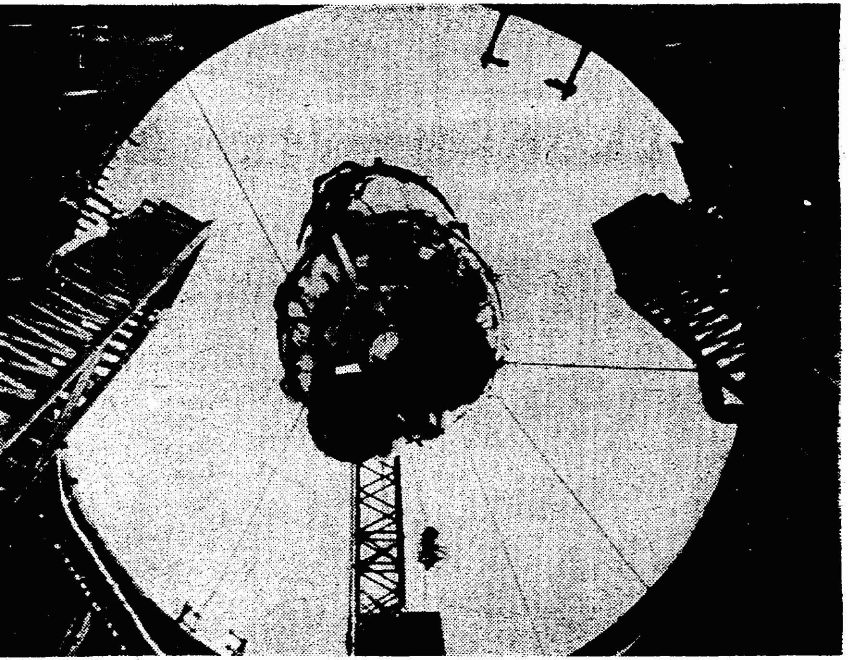
CENTAUR VEHICLE was hoisted by crane into space environmental chamber late last week. The vehicle will be subjected to operational testing of all electrical and mechanical systems, except propellant flow and engine ignition, under simulated space conditions.

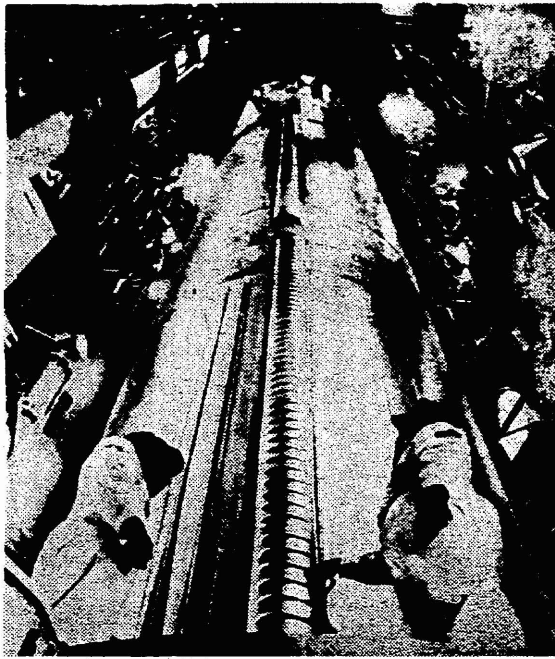
PLAIN DEALER
CLEVELAND, TUESDAY MORNING, MARCH 24, 1964



Space Test at Lewis Lab

A Centaur hydrogen-fueled space vehicle is lowered into a space power chamber at NASA's Lewis Research Center here to begin environmental tests, including simulation of the vacuum of space at an altitude of about 100 miles. Centaur is being developed for NASA by General Dynamics/Astronautics under Lewis Center's technical direction.





Rockets' Glare

The National Anthem's "rockets' red glare" takes added significance in these photos. At left, second stage of Atlas-Centaur rocket is lowered into space vacuum chamber at Cleveland's Lewis Research Center. Rocket is slated for test Thursday. Right, a Titan II ICBM is cocked and loaded at one of 54 stratigic sites across nation.

AP Wirephotos

Nose Fairing Tests . . .

The Surveyor nose fairing for the Centaur launch vehicle will be undergoing tests in the Space Power Chamber for the next few months.

The Lewis facility is the only high vacuum tank in the country large enough to accommodate the tests. It was created by sealing off an end of the old Altitude Wind Tunnel.

During its launch atop a Centaur, the Surveyor will be protected by the type nose cone being tested. Once out of the atmosphere and on the proper trajectory to the Moon, the nose fairing is jettisoned and the Surveyor spacecraft separated from the Centaur second stage.

During the series at Lewis the jettison mechanism employing two gaseous nitrogen thrustors is being tested. An instrumented engineering model of surveyor is used inside the nose cone to determine the effect the jettison will have on the spacecraft.

Photo by Al Lukas.