



Douglas builds chunk of Outer Space

*to speed
interplanetary travel!*

In the U.S. effort to place a man on the moon, the scientific pathway will be paved by NASA's big Saturn rocket. The first-stage of this 20-story giant has already been successfully test launched.

The second stage, now being built by Douglas for the Marshall Space Flight Center, poses a different testing problem. It is made to fire *only* outside the earth's atmosphere, in the cold near-vacuum of space. Since you can't hoist these 50-ton cylinders miles high in the sky, Douglas has re-created a chunk of Outer Space down here on earth.

In this giant test stand, vast quantities of steam drain air from tubes into which the engines fire, creating a tremendous vacuum in seconds. In it, rocket engines are proved under space conditions long before their flight mission.

Helping the U.S. cross new aerospace frontiers is a Douglas specialty. Witness the superb record of THOR, which has launched more satellites than all other boosters combined... the dependability of DELTA as it places new man-moons into precise orbits... the great strides made in the development of two defense firsts, the SKYBOLT airborne IRBM and ZEUS anti-missile rocket.

"Outer Space" test of Saturn S-IV at Douglas Sacramento site incorporates largest cluster of liquid hydrogen engines ever fired.

