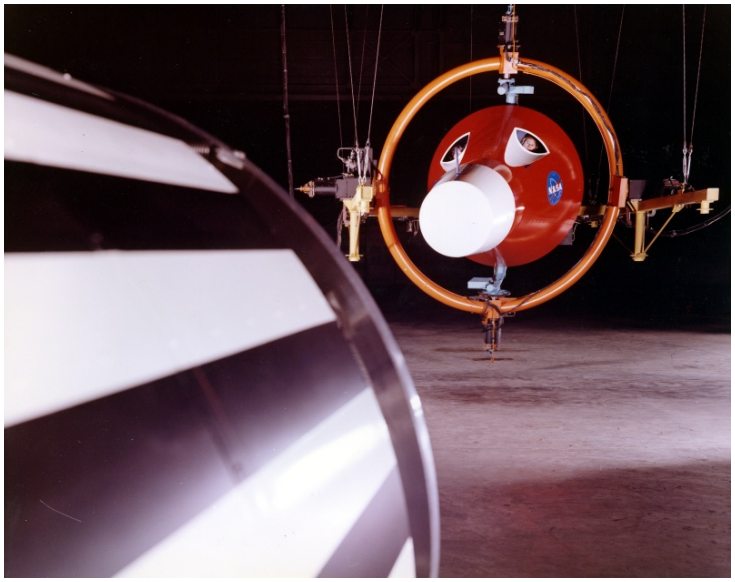
Conducting Space Flight Simulations Testing



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Description

Devices like the Rendezvous Docking Simulator in this photo at the NASA Langley Research Center are being developed by NASA scientists to explore, under controlled laboratory conditions, many complex aspects of space flight. The facility will enable scientists to determine man's ability to complete a rendezvous in either Earth of lunar orbit during the final 200 feet of the docking maneuver. Two research pilots ride in a full-scale model of the Gemini spacecraft and, by operating its controls, bring it into gentle, final contact with a target vehicle. The simulator spacecraft and the target hang on cables from an overhead track. The target can move vertically and laterally, but the spacecraft is capable of all six degrees of freedom of mechanical motion. An analogue computer (not shown) forms an integral part of the simulator system. The arrangement seen here simulates Earth orbit rendezvous and docking as proposed in the Gemini program. Langley Research Center has been conducting scientific studies of space rendezvous and docking problems for several years, and while the versatile facility was particularly designed to aid docking research, it can be adapted for use in other projects requiring dynamic control in six degrees of freedom.

Date(s)

8x10 inches (21x26 cm) Color

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