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Meteorites

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THERMOELECTRIC GENERATOR OF BOEING-WESTINGHOUSE TEAM

A solar powered thermoelectric generator for tapping the energy of the sun is pictured being put through its paces on the roof of a Boeing Company building this week in Seattle. Developed jointly by Westinghouse engineer Niles F. Schuh (left) and Boeing engineer Ralph Tallent (sighting through telescope at the sun), the generator can convert the energy of the sun into 2.5 watts of power—enough to power a radio transmitter far out in space. The model was demonstrated at the summer meeting of the American Institute of Electrical Engineers. Boeing and Westinghouse said the generator may have application in long-mission satellites and manned space vehicles of the future. The concave, highly polished reflector, which resembles a “fun house” mirror, collects the sun’s energy and concentrates it on a portion of the cylinder shaped generator in front of the reflector.

—Boeing Airplane Company Photo

CAPSULE AND ITS CARGO

The first view of the McDonnell Space Capsule mockup to be released publicly shows a pilot preparing to climb through the entrance hatch of the manned satellite being built for the National Aeronautics and Space Administration. This picture taken at the McDonnell Aircraft plant in St. Louis provides a good view of the retro-rockets (lower left) and the flotation bags which give the capsule buoyancy and stability in water.

SHELTERED LAUNCH—Proving a jet fighter can take off from a shelter designed to withstand an atomic blast, an Air Research and Development Command F-100 Super Sabre completes a Zero Length Launch (ZEL) at Holloman AFB, New Mexico. North American Aviation Test Pilot Al Blackburn, Los Angeles, Calif., was at the controls.
‘SPARK BOMB’—A flash of man-made lightning triggers an underwater explosion that bulges an aluminum tube with 6,000-horsepower force! In this demonstration of explosive forming of metal at Republic Aviation Corporation (Tues. Sept. 1) the experimental device sets off the explosion by passing electricity through the water, converting the resulting shock wave into the force required to form metals. Adolph Kastelowitz (shown watching the blast), director of manufacturing research for the company, said it is working on development of a machine tool that would utilize this technique to form such space-age metals as steel and titanium alloys. Such a tool, he said, would be less expensive and considerably smaller than conventional hydraulic presses now used for this work.

ION TEST—Prototype ion thrust device, developed by Rocketdyne, a division of North American Aviation, Inc., produces ion beam during test run in vacuum tank which simulates outer space conditions. Thrust system, in which ions are created and accelerated to high velocities, is visible at left. The photograph was taken through a port in the top of the vacuum tank. An ion engine delivering only a fraction of a pound of thrust could propel space vehicles on interplanetary voyages.

AEROJET DESIGNING GIANT ROCKET TEST STAND

Shown above is an artist’s conception of Aerojet’s giant six-million-pound-thrust rocket test stand. It is comparable in size and scope to the one presently being designed by the Aerojet-General Corporation’s Facilities Engineering Division for the U.S. Army Corps of Engineers. The stand will be constructed at Edwards Air Force Base and used for testing the NASA 1,500,000-pound-thrust liquid rocket engine. This concrete and steel test facility, believed to be the most powerful in the free world, will be capable of holding a cluster of four of these engines while they are being fired simultaneously.