

Picture Story No. 529

SPACE RESEARCH

Rockets, satellites and missiles of many types, developed by United States scientists, will be launched during 1959 in a long-range program to put man into outer space. The vehicles scheduled for flight tests are the result of technological progress achieved through painstaking, meticulous space research by scientists in private U.S. industry and in U.S. Government. In this nationwide effort, thousands of scientists, engineers, designers and technicians are collaborating to reach two goals simultaneously -- peaceful exploration of space and military defense against possible aggression.

6-15 A device that simulates the stresses on metals in space has a triple-torture effect. The outside of the device is heated to 450 degrees Fahrenheit by a battery of infra-red lamps and the inside of the ring simultaneously is cooled by air blown through aluminium tubes. At the same time hydraulic devices pull at the metal under test. Through such research U.S. engineers investigate the heat problems created by the speed of space vehicles. Courtesy of North American Aviation, Inc. 158-23736

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Astronautics: Research

Un aparato que simula el esfuerzo a que es sometido el metal en el espacio, tiene un efecto triple de "tortura". La parte exterior del aparato se calienta hasta llegar a los 450 grados Farenheit, por una batería de lámparas infrarrojas, y el interior del aro es simultáneamente enfriado por aire que despiden los tubos de aluminio. Al mismo tiempo los aparatos hidráulicos tiran del metal que está sometido a prueba. Por medio de estos estudios, los ingenieros norteamericanos investigan los problemas del calor creados por la velocidad de los vehículos espaciales.



SCIENCE - ASTRONAUTICS (RESEARCH)