

C20848F3



MIGHTIEST U.S. ROCKET ENGINE TESTED

Progress toward manned flights to the moon and distant planets is seen in the successful performance of F-1, the mightiest rocket engine ever developed in the United States. In more than 25 recent test-stand firings, the new single-chamber liquid-propelled engine has met and even exceeded its designers' power goal of 1,500,000 pounds (680,000 kilograms) of thrust. After flight tests in 1963, the F-1 is expected to become the nation's basic booster engine, with the power and versatility to advance space flight during the next decade.

6-10. This is the "business end" of the F-1 engine through which a fiery blast will escape as three tons (2.72 metric tons) per minute of liquid oxygen and propellant fuel are fed to the engine by a turbopump operating at 6000 revolutions per minute. When the F-1 engine is fired, flame and hot gases are thrust downward and then turned outward at a 90-degree angle by a 260-ton (235.57-metric-ton) water-cooled flame deflector. (61-13326)

SCIENCE - ASTRONAUTICS - RESEARCH