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Picture Story No. 825

**MOST POWERFUL U.S. ROCKET ENGINE
ADVANCES TOWARD MOON-FLIGHT GOAL**

When American astronauts start for the moon, their Apollo capsule will ride atop the Saturn V, a mighty rocket as tall as a 30-story building. The first stage of the rocket, which will boost the capsule from its launching pad, will be powered by a cluster of five F-1 engines with a total thrust of 7,500,000 pounds (3,375,000 kilograms). The F-1, a liquid-fueled giant, is the most powerful rocket engine ever built in the United States. Because the F-1 is scheduled for a test flight in 1966 and the Apollo moon flight during this decade, the engine is being extensively tested on the ground and will undergo limited test flights. Developers say that when the F-1 is first tested in flight it will be better qualified than other rocket engines after 100 flights.

4-6 An F-1 engine is adjusted before it moves to a test stand. The technician (right) makes a final examination of the turbopump which drives three tons of propellant a second into the combustion area, or thrust chamber (left). The developers consider the F-1 the safest, most reliable rocket engine built in the United States. (63-4561)

