

## **Northrop Grumman Test Fires Full-Scale Sentinel Stage-Two Solid Rocket Motor**

January 16, 2024

TULLAHOMA, Tenn. – Jan. 16, 2024 – Northrop Grumman Corporation (NYSE: NOC) successfully completed a live, static-fire test of a Sentinel intercontinental ballistic missile (ICBM) stage-two solid rocket motor at the U.S. Air Force Arnold Engineering Development Complex. The test was conducted in a vacuum chamber simulating real-world environmental conditions the solid-rocket motor would experience during high-altitude and space flight.

Test data will be analyzed to determine how motor performance matched digitally engineered model predictions, critical to maturing the design and lowering risk.

Following this development effort, Northrop Grumman will begin a series of rocket motor qualification testing for both stages.

Northrop Grumman is designing and producing Stages one and two of the three-stage Sentinel missile.

This test was conducted under the company's engineering, manufacturing, and development (EMD), or design contract for Sentinel. Northrop Grumman continues to perform on this phase and is working closely with the Air Force on progressing EMD milestones.

### **Expert:**

Sarah Willoughby, vice president and program manager, Sentinel, Northrop Grumman: "Our successful test moves us forward for qualification testing in partnership with the Air Force. The test's data gives us an accurate reading of our design's performance and now informs our modeling and designs. This lowers risk and builds confidence in our approach to deliver the next-generation ICBM capability to the Air Force."

### **Details on Program:**

The Sentinel program is a modernization of the nation's ground-based leg of the strategic triad and is designed to be viable through 2075.

Northrop Grumman leads a nationwide team for the engineering, manufacturing and design (EMD) contract. The team is responsible for designing the most technologically advanced portion of America's ground-based strategic deterrent and is closely partnered with the Air Force to continue progress on EMD milestones, maturing the design while reducing risk.

Other key milestones previously performed under EMD include hypersonic wind tunnel testing and a stage-one solid rocket motor static fire.

<https://news.northropgrumman.com/news/releases/northrop-grumman-test-fires-full-scale-sentinel-stage-two-solid-rocket-motor>