



# Mk21 Fuze Program

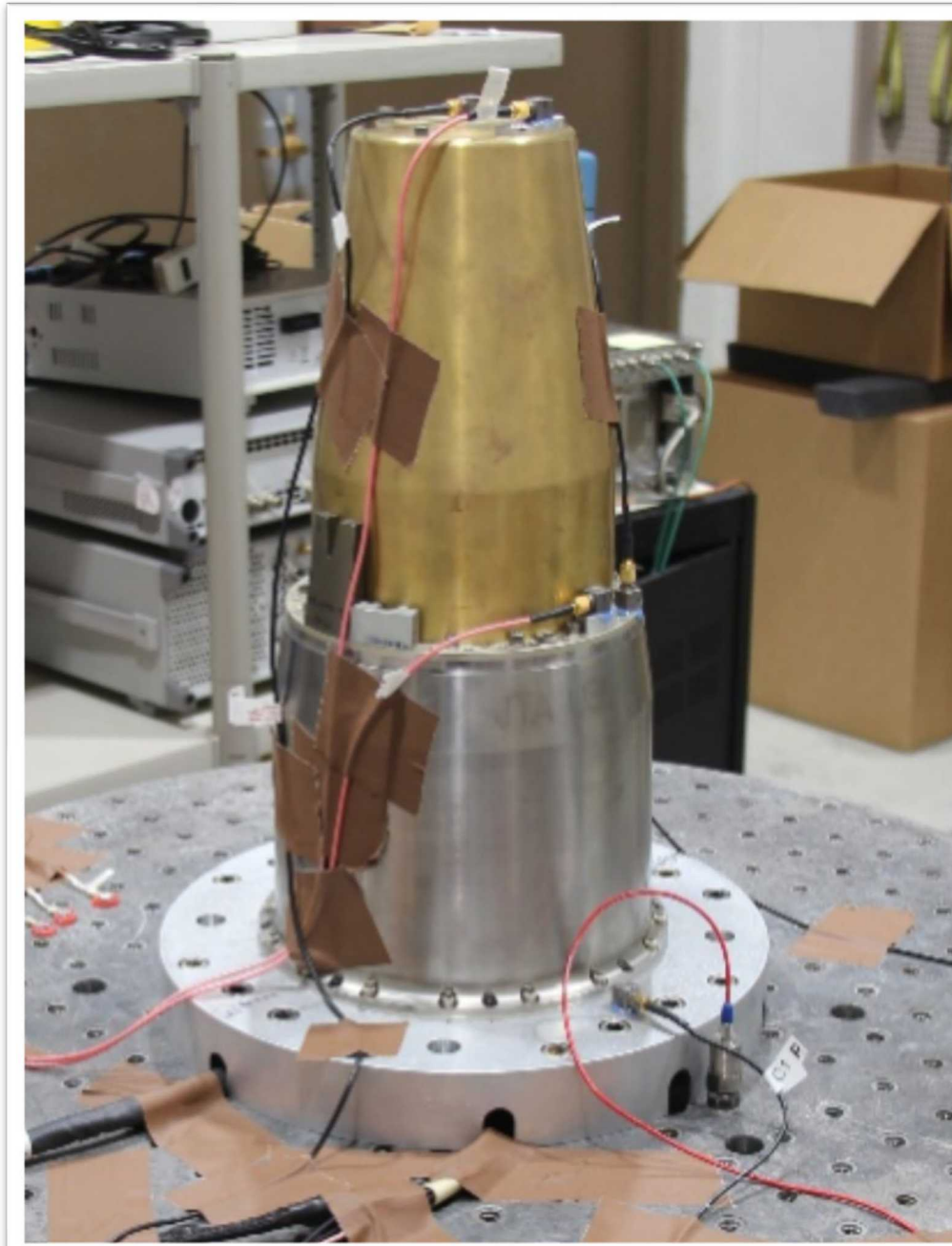
## Development Reentry Vehicle Ground Testing



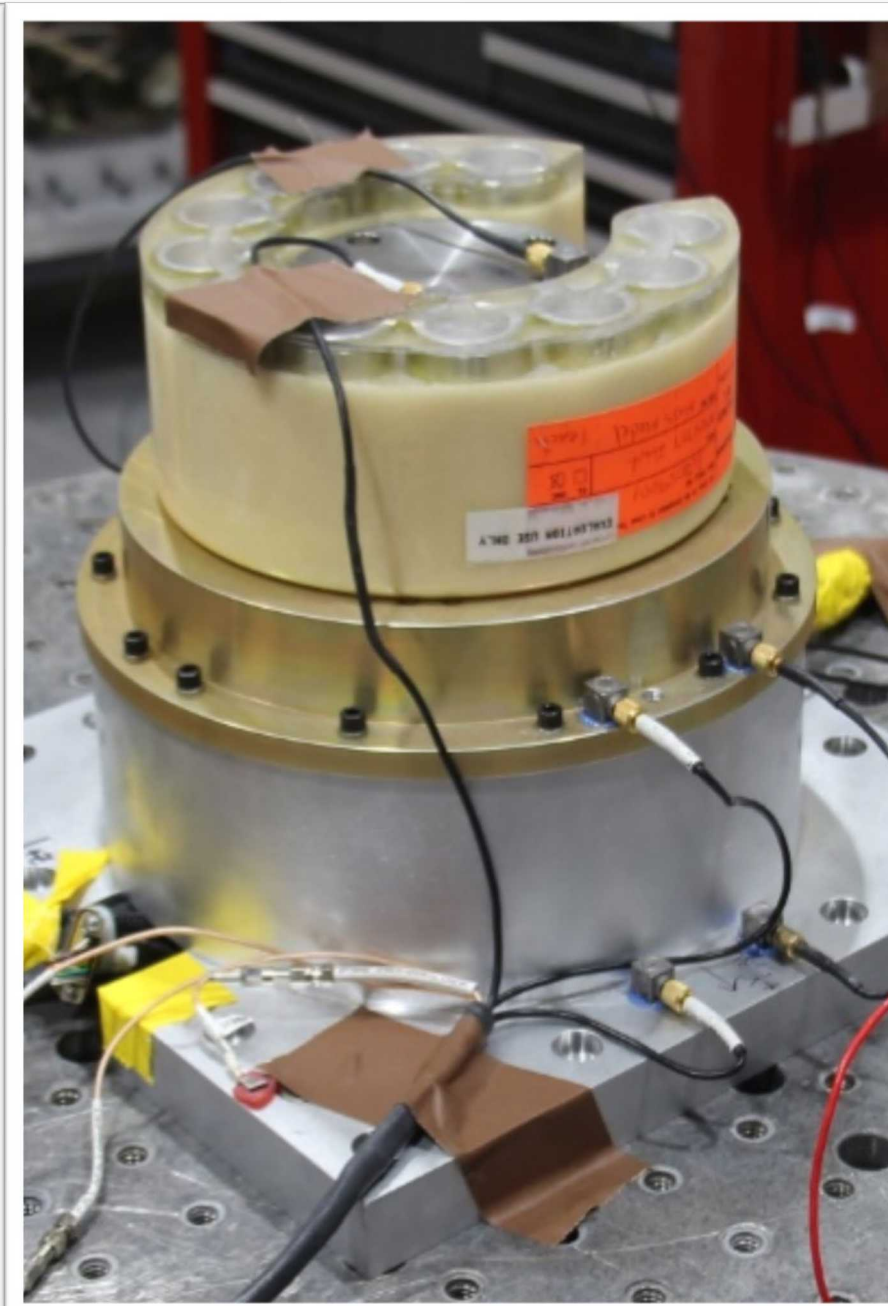
Sandia is tasked with designing, fabricating and testing reentry vehicles for development flight tests in support of the Arming & Fuzing Assembly (AFA) modernization program. The flight test vehicle design is verified to meet requirements through component, subassembly and system-level ground testing. This is done to ensure the flight vehicle design is sound, will meet its test objective of acquiring AFA and reentry vehicle data and relay it to the ground.

### Subassembly Testing

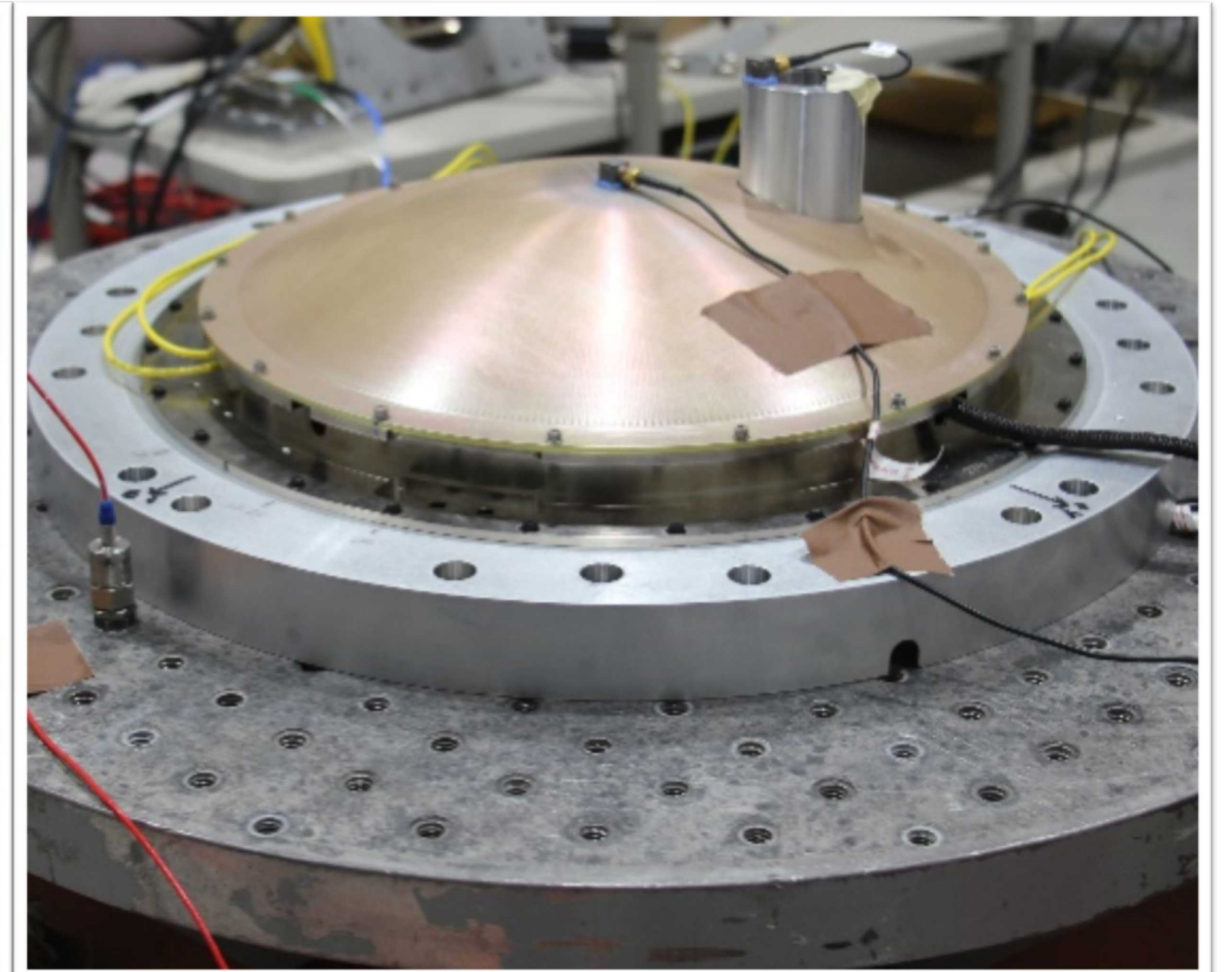
Subassembly testing (right) applied vibration and shock environments at margin-levels directly to the mounting interface to the aeroshell.



Weapon Electrical System (WES) Deck



Blivet Flange



AFT Bulkhead



Pictured left to right: Dennis Hill, Lockheed Martin, Paul Lowe, Org. 8435, Matt Edwards, Org. 8251, John Andersen, Org. 8252, Paul Mendes, Org. 8518, Fredy Cisneros, Org. 8252, Rick Ashabanner, Org. 8252

### Vibration & Shock Testing

System-level testing applied vibration and shock in each axis while functionally operational. Configurations included transportation (left), axial powered flight (center), and lateral reentry (right).

### System-level Configuration

System-level testing includes an electrical integration test at the Boeing's Integration Test Bed (ITB) in Huntington Beach, CA and a fire-down battery test without external power. Each ground test requires the support of the System Tester to provide missile discretes, external power, path length emulation, radar returns and impact signals to simulate a flight test. Most tests also require a telemetry ground station to receive and process the instrumentation data as would be done for a flight test.

