

AMRAAM PEP Propulsion System



Advanced Medium Range Air-to-Air Missile Propulsion System

Overview

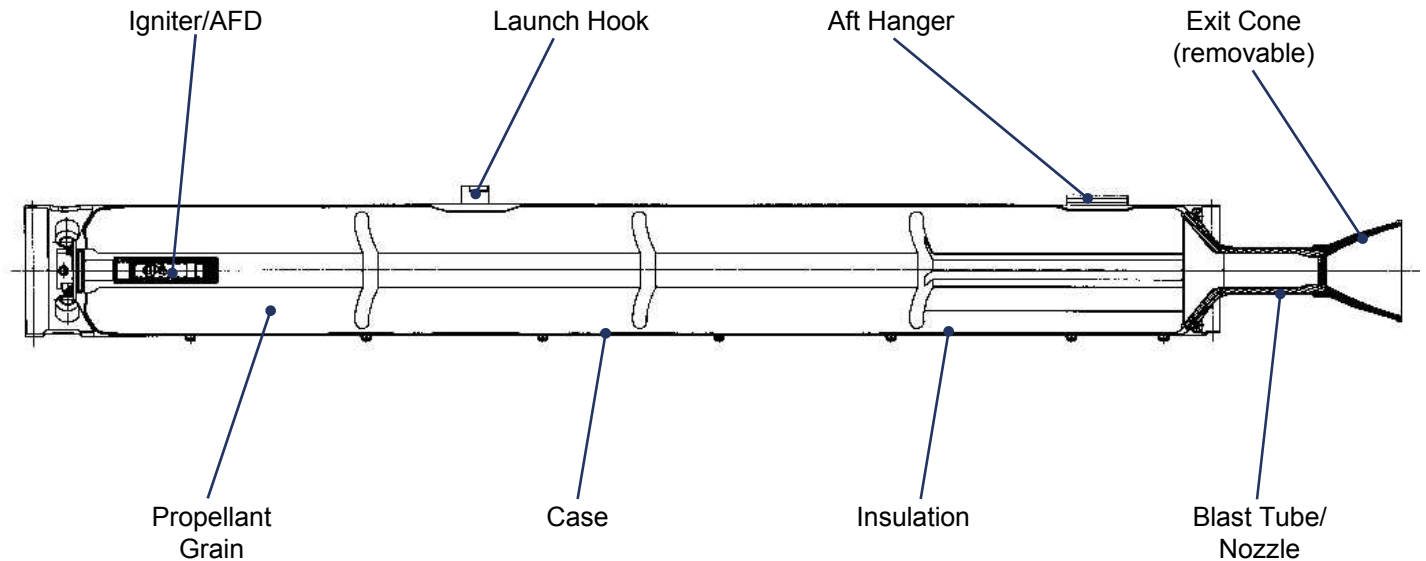
The Advanced Medium-Range Air-to-Air Missile (AMRAAM) was developed under joint sponsorship of the U.S. Air Force and U.S. Navy. The AMRAAM is designed to replace the radar-guided Active Inert Missile (AIM)-7 Sparrow and to allow U.S. and NATO countries to retain air superiority against future advances in tactical air weaponry. AMRAAM is designed to be launched from Air Force F-15s, and F-16s; Navy F/A-18s, F-22s, and F-14s; and NATO and allied fighters.

Application

The AIM-120-C5 is a medium-range look-down, shoot-down, air-to-air missile with fire-and-forget and multiple launch capabilities. The AMRAAM can be launched beyond visual range, day or night, and in all weather conditions. Additional capabilities include quick fly-out, greater immunity against countermeasures, and improved low-level attack capability.

Development

ATK Tactical Systems Company developed and qualified the enhanced rocket motor under contract to the Naval Air Warfare Center/Weapons Division, China Lake, California. This motor represents an all-boost design that delivers a significant increase in performance as compared to the baseline production motor. The enhanced rocket motor development/qualification program ran from 1995 through 1997. Production of the enhanced rocket motor began in early 2000 and continues today.



AMRAAM PEP Propulsion System

Features

- All boost propellant grain design
- Reduced smoke propellant
- Case bonded grain design
- Remote arm/fire device
- High performance blast tube and exit cone

Performance

- Temperature Limits:
 - Operating: -65°F to +145°F
 - Storage: -65°F to +145°F
- Service life: 10 years

Technical Data

Weight: 166.1 lbs
 Length: 74.4 in. (w/ blast tube)
 Diameter: 7.0 in.
 Case: D6AC steel
 Insulator: R-181 EPDM
 Propellant: reduced smoke HTPB

For information contact: ATK Tactical Systems
 Allegany Ballistics Laboratory
 210 State Route 956
 Rocket Center, WV 26726
 304-726-5000 Tel 304-726-5183 Fax

Approved for release to the public domain 3/98