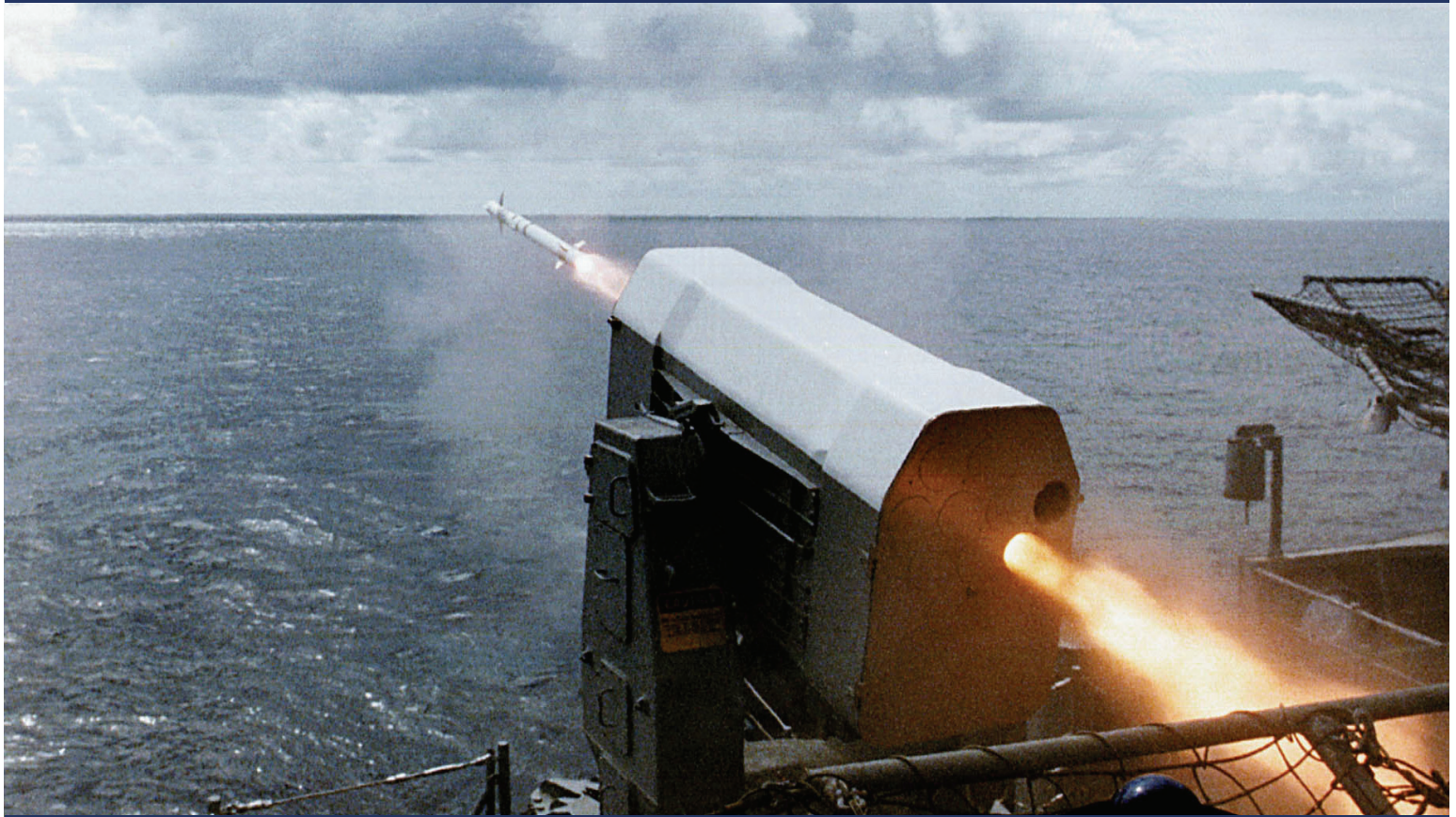


RAM Propulsion System



Rolling Airframe Missile Propulsion System

Overview

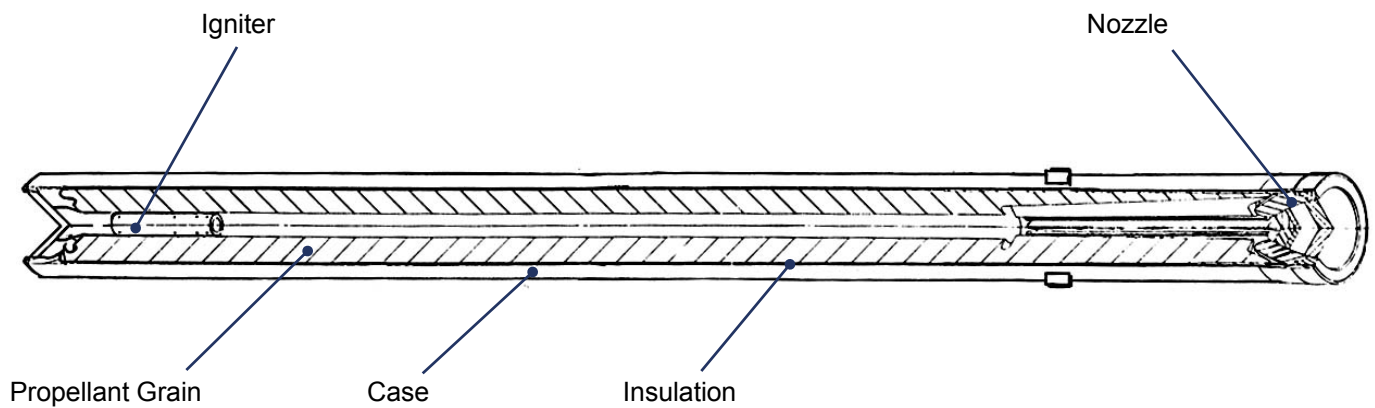
The RIM-116A RAM missile was cooperatively developed by the U.S. and Germany as a fire-and-forget counter to incoming anti-ship missiles. It is guided initially by the radiation emitted by the seeker of the incoming missile, and in the terminal phase switches over to IR homing. The RAM first flew in 1978 and was upgraded in 1999 to incorporate a new linear-array IR seeker.

Application

The Mk112 Mod 1 motor used for RAM is essentially a Mk 36 Sidewinder motor that has minor external case modifications and an electro-mechanical arm fire device.

Development

ATK's McGregor, Texas facility developed the RAM motor from 1989 to 1990 and produced the motor until 1993. Production of the RAM rocket motor was transferred to ATK's Rocket Center, West Virginia facility where production was resumed in 1996. In total, ATK has manufactured and delivered over 1,400 reduced smoke (RS) propulsion units to the U.S. Navy.



Rolling Airframe Missile Propulsion System

Features

- Radial burn, finocyl propellant grain
- All-boost thrust profile
- Electro-mechanical arm/fire device
- Submerged nozzle design
- Same basic configuration as the Mk 36 propulsion unit used for the Sidewinder air-to-air missile

Performance

- Temperature Limits:
 - Operating: -65°F to +160°F
 - Storage: -65°F to +160°F

Technical Data

Weight: 95.0 lbs
 Length: 71.0 in.
 Diameter: 5.0 in.
 Case: 4130 steel
 Insulator: R-184
 Nozzle: glass phenolic
 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