

GQM-163A Coyote

Supersonic Sea Skimming Target



GQM-163A Coyote Supersonic Sea Skimming Target

Overview

On 29 June 2000, Orbital Sciences Corporation, Launch Systems Group was awarded a \$34 million Engineering and Manufacturing Development (EMD) contract for the GQM-163A Supersonic Sea Skimming Target (SSST) system. Orbital's proven Theater Missile Defense (TMD) and National Missile Defense (NMD) ballistic missile target design philosophy of maximizing residual missile assets and off-the-shelf hardware and technology is being applied to cruise missile targets. This approach provides the U.S. Navy with the best value, lowest risk and highest performance GQM-163A system.

The GQM-163A MK 70 Booster/Ducted Rocket Sustainer configuration makes judicious use of residual Standard Missile assets and the \$80 million U.S. Government investment in solid-fueled ducted rocket/ramjets. The GQM-163A Ducted Rocket Sustainer is based on technology developed by major subcontractor Aerojet (formerly ARC) under the U.S. Air Force's Variable Flow Ducted Rocket (VFDR) program. The GQM-163A avionics design is based on the Orbital Launch Systems Group's multi-program Modular Avionics Control Hardware (MACH) System. The MACH flight computer boasts a modern Power PC core hosting a real-time operating system and a flight proven software architecture based on the Company's common object oriented C++ application framework.

Following the EMD phase of the GQM-163A program Orbital received follow-on Full Rate Production (FRP) contracts in excess of 80 production targets, with newer targets being produced with the Orbital designed Front End Subsystem (FES), which introduced several robust technology updates to address obsolescence of the older targets. Under the GQM-163A contract, Orbital has an operational launch success rate of 100%, which includes a successful demonstration of a High Diver trajectory, the Orbital designed FES, and the Orbital designed Target Support Test Set (TSTS). For user flexibility, the GQM-163A target is now operationally capable of launching from three different launch sites around the world.

QUICK FACTS:

Customer

Program Executive Office for Unmanned Aviation and Strike Weapons, PEO(U&W); Aerial Target & Decoy Systems Program Office, (PMA-208)

Objectives

- Provide a Cost-Effective Target to Simulate both Supersonic Sea Skimming and other emerging Supersonic Anti-Ship Cruise Missile (ASCM) Threats
- Support RDT&E of Ship Defense Systems and Support Fleet Training Exercises

Operational

October 2005

Prime Contractor

Orbital Sciences Corporation – Launch Systems Group, Chandler, Arizona

Major Subcontractor

Aerojet, Camden, AR

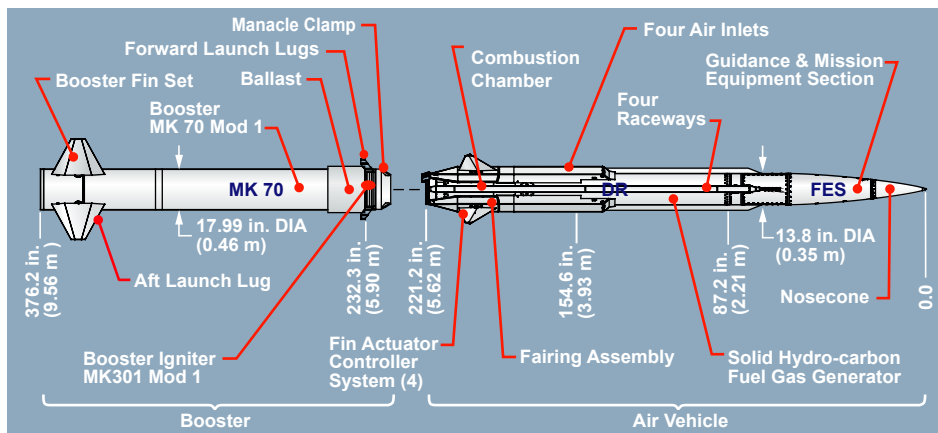
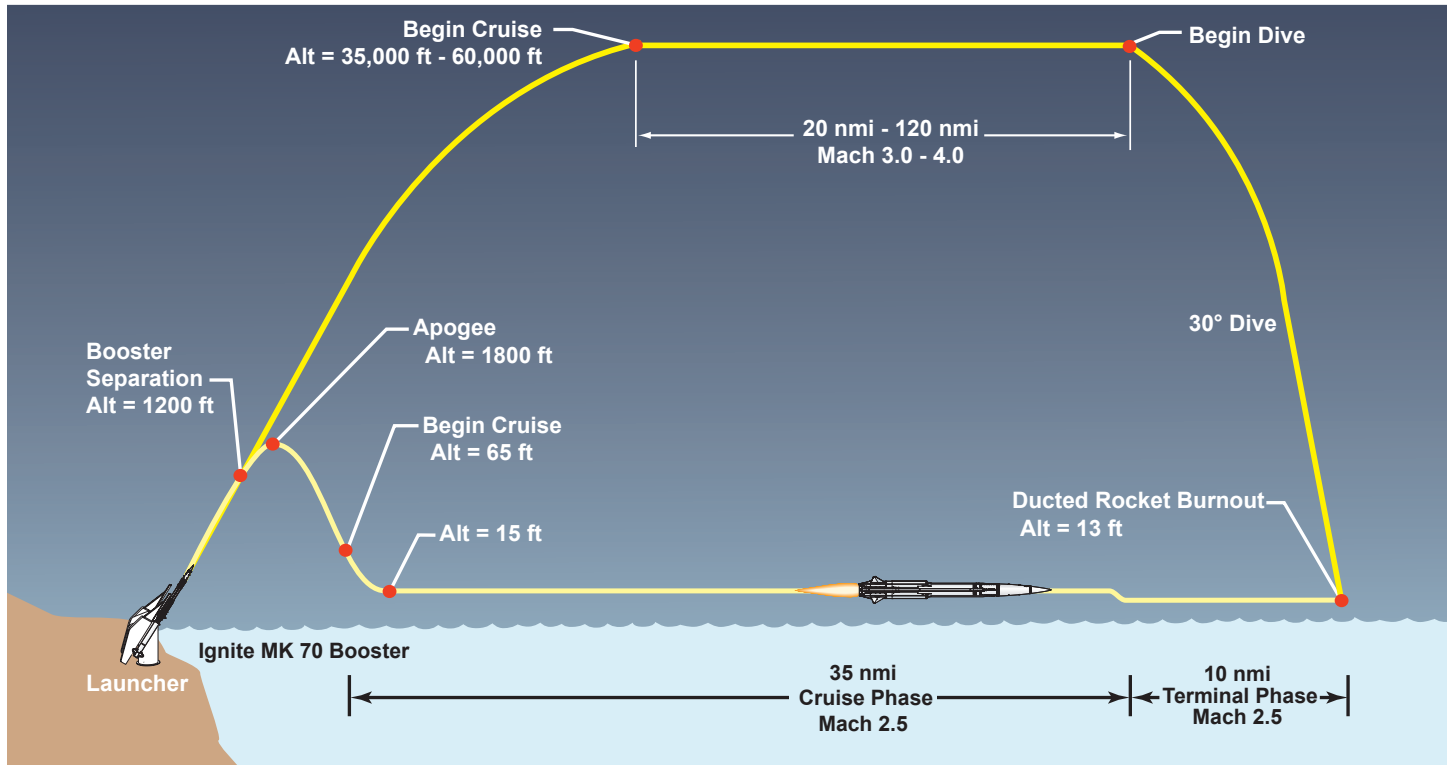
- Solid Fuel Ducted Rocket Subsystem



Coyote in flight

GQM-163A Coyote

Representative GQM-163A Mission Profile and System Performance



NAV AIR

Orbital

AEROJET

For more information, please contact:

Mark Ogren
VP of Business Development
480.814.6605
ogren.mark@orbital.com