

# AIM-9X Sidewinder



## AIM-9X

The world's best dogfight missile for the world's best fighter pilots.

### Benefits

- ▶ Low cost of development and ownership
- ▶ Superior performance exceeds tactical requirement
- ▶ Leader in advanced IR missiles and weapon systems integration

### AIM-9X Sidewinder

The AIM-9X is the latest member of the AIM-9 Sidewinder short range missile family currently in use by more than 40 nations throughout the world. This next generation Sidewinder Missile is currently in its fifth year of a six year Engineering and Manufacturing Development (E&MD) contract. Additionally, AIM-9X has been approved for low rate production and awarded its first low rate initial production contract in November 2000.

The AIM-9X acquisition plan addresses the urgent warfighting requirement for the development and deployment of a next generation Sidewinder to replace the AIM-9M. AIM-9X is a launch and leave, air combat missile that uses passive infrared (IR) energy for acquisition and tracking, which can be employed in the near beyond visual range (NBVR) and within visual range (WVR) arenas. Complimented with the Advanced Medium Range Air-to-Air Missile (AMRAAM), the warfighter has offensive firepower that is unparalleled to any other weapon systems in the world today. The AIM-9X program addresses the requirement for evolutionary improvements to the

AIM-9 series missile through revolutionary advancements. This extends the operational effectiveness of existing inventories at an affordable cost while continuing the evolution of the AIM-9 series. AIM-9X provides the warfighter with the following capabilities: full day/night employment, resistance to countermeasures, extremely high off-boresight acquisition and launch envelopes, greatly enhanced maneuverability and improved target acquisition ranges. The agile AIM-9X airframe coupled with other AIM-9X advanced features will give fighter pilots a significant tactical advantage in the dog fight arena. The AIM-9X uses an extremely agile thrust vector controlled airframe. Configured with a mature and high performance staring focal plane array sensor and existing AIM-9M components (rocket motor, warhead and fuze), this evolutionary design is a low cost, low risk AUR with robust performance. The digital design architecture of the AIM-9X provides inherent growth capability to ensure air superiority in the future.

AIM-9X is a joint U.S. Navy and U.S. Air Force program with the Navy designated as the Executive

Service. The Air Force plans to buy 5,080 and the Navy 5,000 AIM-9X missiles over a planned 18-year production run. Significant potential exists for procurement by allied nations. The first AIM-9X air launch was successfully accomplished in March 1999. This major milestone was the first in a series of separation and control test vehicle and guided launches. During 1999 to 2000, the AIM-9X program successfully launched 13 separation and control test vehicles and 12 guided launches from U.S. Navy F/A-18 and U.S. Air Force F-15 aircraft. Of the 12 successful guided firings, 10 have resulted in direct hits against QF-4 unmanned drones. These series of tests will continue into 2001 with additional separation and guided firings scheduled to further evaluate the AIM-9X program.

The AIM-9X E&MD phase completes the development of the missile tactical system design and establishes the weapons system interface with the F-15C and F/A-18C/D airplanes and the joint helmet mounted cueing system (JHMCS). U.S. Government development and operational testing plans include



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Unprecedented. . . Fifth Generation. . . Smarter. . .



extensive captive carry reliability testing and free flight guided launches. In addition to the F/A-18C/D and the F-15C, AIM-9X will be integrated on the Navy F/A-18E/F and the Air Force F-15E, F-16 and F-22 airplanes during Follow-on Test and Evaluation. AIM-9X is fully compatible with the LAU-12X series and the LAU-7 launchers.

### The Threat

For over forty years, U.S. and allied fighter pilots have enjoyed air superiority in short-range engagements. Now, however, current threat missiles, aircraft, and environments threaten to eclipse this advantage... demanding a new generation Sidewinder Missile – AIM-9X.

### AIM-9X — The Answer

In modern short-range air-to-air combat, first-shot/first-kill capability is necessary to ensure victory in today's high technology battlefield. Our fighter pilots will enter the fight with AIM-9X, a missile that retains the essence of Sidewinder heritage, while employing a fifth generation

seeker and thrust vectoring control for unprecedented performance. The Raytheon team's experience in advanced IR technologies, weapons systems integration, and affordable missile production provides an AIM-9X that ensures air superiority for the 21st century.

### Unprecedented...

*Superior Performance Exceeds Tactical Requirement*

- Greatly enhanced acquisition ranges in blue sky and clutter
- IR countermeasures resistance to meet the threats of today and those of tomorrow
- Extremely high off-boresight capability gives the pilot the first shot, first kill opportunity
- Highly agile airframe
- Inherent growth potential

### Fifth Generation...

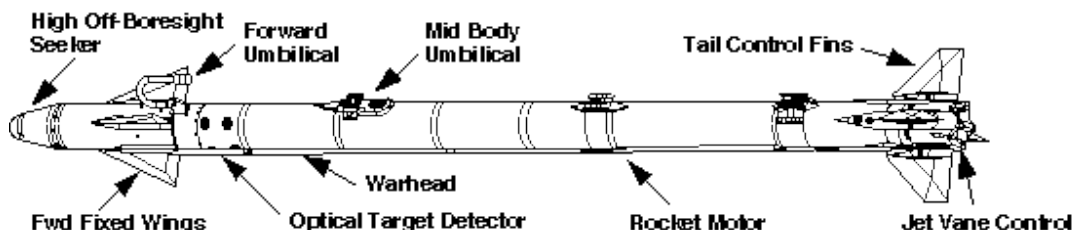
*Leadership in Advanced IR Missiles and Weapon Systems Integration Brings the Warfighter Unprecedented Technology Today – AIM-9X*  
Our commitment and acknowledged leadership in advanced IR missile design allows us to execute

a low risk, low cost development phase that returns air superiority to the warfighter sooner. Mature enabling technologies that include staring focal plane arrays, adaptive compensation techniques, and advanced IR signal processing permit a low risk E&MD phase. The Raytheon AIM-9X team is the world leader in advanced digital aircraft weapons integration. This weapon system design experience includes the AMRAAM; the AMRAAM/AIM-9X compatible digital launcher; the F-14D, F/A-18E/F, and F-15 advanced radars; and F-22 weapon system. We understand the digital combat environment and the critical weapon system parameters necessary to fight and win in the pre and post-merge arena.

### Smarter...

*Revolutionary Ideas Through Evolutionary Development*  
The critical path of any missile development is through the seeker. The payoff from leveraging an in-production seeker and our extensive commitment to advanced fifth generation IR

technologies is a low cost/low risk AIM-9X development. Our advanced, mature IR FPA sensor and innovative guidance and control design combined with reuse of existing components presents an AIM-9X that is affordable and lethal. Features such as a Cryoengine and extended warranty significantly reduce cost of ownership while increasing the AIM-9X tactical utility and availability. Our IPT culture and agile manufacturing techniques are combined with acquisition reform initiatives to produce an affordable, low risk, and highly reliable AIM-9X design.



### AIM-9X Sidewinder

#### Specifications

Weight:	188 lb	85 kg	Diameter:	5 in	12.7 cm
Length:	119 in	3 m	Fin Span:	17.5 in	44.45 cm
			Wing Span:	13.9 in	35.31 cm

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