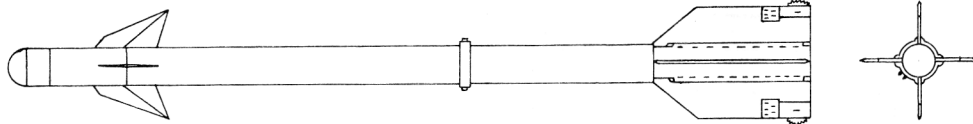


UNCLASSIFIED

23 Sidewinder /char  
AIM-9B

# Characteristics Summary

AIR INTERCEPT MISSILE . . . . . AIM-9B (GAR-8)



"SIDEWINDER IA"

BUORD

Wing Area . . . . .	N. A.	Length . . . . .	111.5 in.
Span (Wing) . . . . .	22.0 in.	Diameter . . . . .	5.0 in.
(Fins) . . . . .	15.0 in.		

AVAILABILITY			PROCUREMENT			
Number available			Number to be delivered in fiscal years			
ACTIVE	RESERVE	TOTAL				

## STATUS

- Project initiated (U. S. Navy BUORD): 1947
  - First USAF participation in project: 1955
  - AIM-9B is primary armament on F-104A & B.
  - AIM-9B is additional armament on F-100D & F, F-105B, D & F and F-104C, D & G and TF-104G. aircraft.
  - R&D completed, SOR cancelled: 18 Jun 59
  - Engineering responsibility transferred to AFLC . . . . . Aug 61
- Navy Equivalent: (Sidewinder 1A)

## POWER PLANT

(1) Single-level thrust,  
Solid Rocket Mk 17, Mod 1

BUORD

### THRUST RATINGS

S. L. S. @ 70°F	LB	SEC
Max . . . . .	3860	2.2

## FEATURES

Guided Aircraft Rocket for destruction of subsonic and supersonic aircraft  
Canard cruciform configuration  
Combination blast and fragmentation warhead - contact and influence fuzes  
Gas-turbo-generator for electrical power and actuating controls  
Used for tail cone attacks only

Max Fuel Capacity: 41.0 lb

## GUIDANCE

Passive Infra-red seeker which collects signals and directs reticle chopped rays to a lead sulfide cell. Voltage variations of the cell are oriented by combination with phase generator signals. The resultant combined signal is fed to a control unit.

### CONTROL

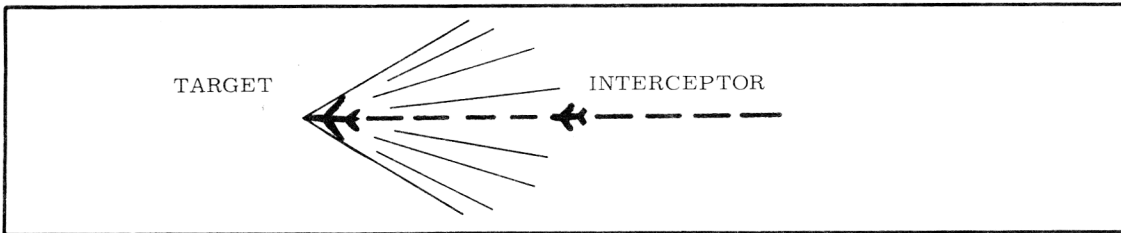
Gas operated servocylinders which respond to the above signals to deflect the guidance fins. The control system is a torque balance type which automatically compensates for altitude and speed variations.

DOWNGRADED AT 3 YEAR INTERVALS;  
DECLASSIFIED AFTER 12 YEARS  
DOD DIR 5200.10

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*Characteristics Summary Basic Mission* . . . . . AIM-9B (GAR-8)



**PERFORMANCE**

<b>TARGETS</b>	<b>RANGE</b>	<b>S P E E D</b>
Subsonic and Supersonic Aircraft	Sample Max Range is 28,000 ft @ 60,000 ft altitude for:  Target speed: M = 0.6  Launch speed: M = 1.0 (See notes 1 & 3)	MAX Launching aircraft speed plus 2,000-2,500 fps

<b>LAUNCHING</b>	<b>FLIGHT TIME</b>	<b>ALTITUDE</b>
<p style="text-align: center;">METHOD</p> Short length track, launching lugs on missile body <p style="text-align: center;">LOCATION</p> F-100 & F-105 - Wing Pylons (4 missiles per airplane) F-104 - Wing tip launcher (2 missiles per airplane)	Nominal missile flight time:  18 seconds	Effective to above 60,000 ft

<b>L O A D</b>	<b>W E I G H T S</b>	<b>TARGET ACCURACY</b>
Warhead . . . . . 25 lb HBX-1 Explosive . . 12.5 lb Motor (loaded) . . . 78.5 lb Useful Fuel . . . . . 41.0 lb	Launch . . . . . 164.0 lb  Burnout . . . . . 123.0 lb	Single Shot PK "A" Kill against bombers .560.6 against fighters .6 to .7 "K" Kill against bombers .3 to .4 against fighters .4 to .5

**N O T E S**

1. Performance Basis:  
 (a) Calculated data, AFMDC Flight Testing.
2. Range varies widely with altitude and closing rate.
3. Revision Basis: To lower security classification to confidential.