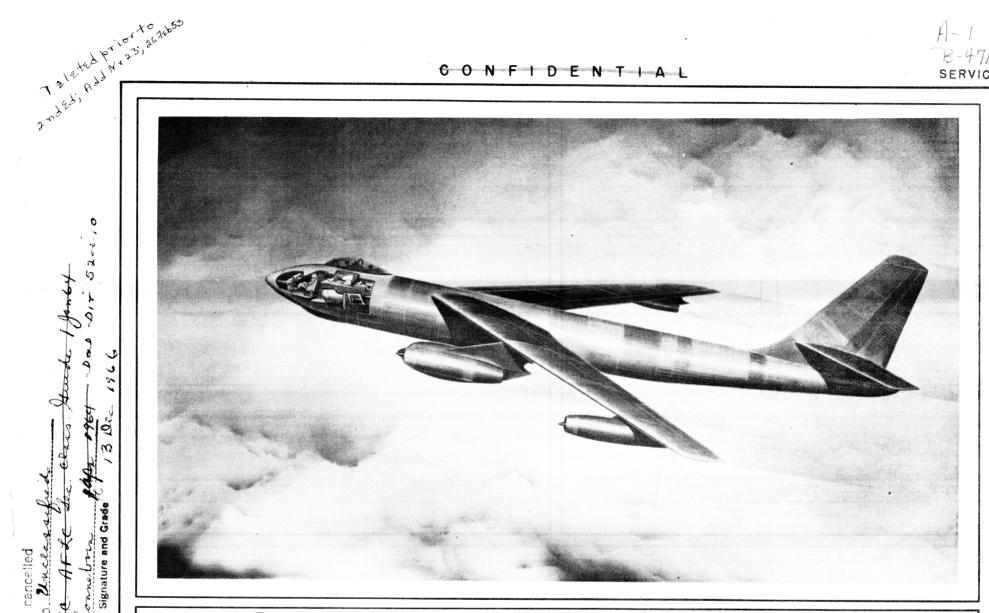
rssification cancelled AUTH:



Standard Aircraft Characteristics

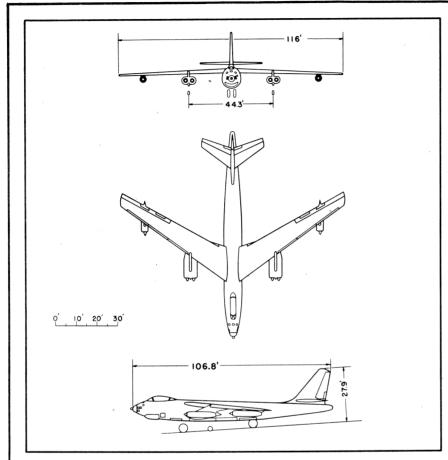
BY AUTHORITY OF COMMANDING GENERAL WRIGHT AIR DEVELOPMENT CENTER U.S. AIR FORCE

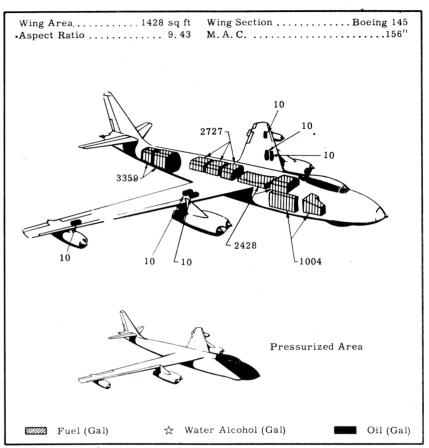
STRAOTJET

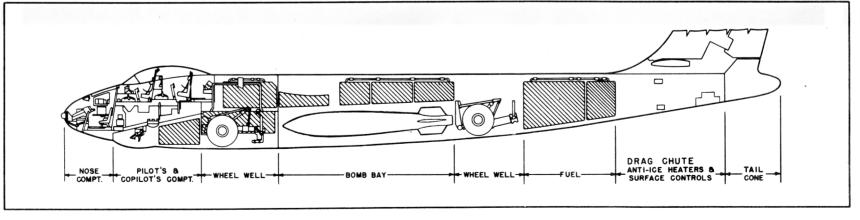
Boeing

SIX J-47-GE-II

GENERAL ELECTRIC







B-47A

CONFIDENTIAL

4 JUNE 1951

POWER PLANT

No. & Model (6) J47-GE-11
Mfr General Electric
Engine Spec. No E-583
Type Axial Flow
Length144"
Diameter
Weight (dry)
Provisions for:
*ATO Units
No. & Model (18) 14AS1000
Mfr Aerojet
Weight (loaded)200 lb ea.
*Serial No. 49-1901 does not have
provisions for ATO.

ENGINE RATINGS

LB - RPM - MIN

S. L. Static

Max:	5200	-	7950	-	5
Mil:	5200	-	7950	-	30
Nor:	4730	-	7630	-	Cont
Thrust	Units Pr		18 x	10	00 lb
	onds dur				
*Serial No. 4	9-1901 c	doe	s not	ha	ve
provisions fo	r ATO.				

Mission and Description

Navy Equivalent: None

Mfr's Model: 450-10-9

The B-47A is a high-speed, medium range, swept-wing jet bomber whose tactical mission is the destruction by bombs of land or naval material objectives.

The normal crew consists of a pilot, co-pilot-gunner and a bombardier-navigator. The crew compartment, located in the forward part of the fuse-lage, is pressurized and has complete heating and ventilating facilities. Seat ejection is provided for the normal crew.

The electrically-operated, bicycle-type main landing gear consists of steerable dual-wheel front gear and dual-wheel rear gear. The outrigger landing gear consists of a single wheel retracing into the inboard nacelle, A K-2 Bombing-Navigational System is provided in four (4) of the 10 "A" airplanes.

There are provisions for solid rocket augmentation for take-off and a braking parachute is provided for decreasing landing roll distance. NESA glass windshield provided for pilot. Hydraulic boost provided for all three control surfaces. Anti-skid device for braking.

A type MH-7 automatic pilot is installed.

Development

Design initiated:	Dec 1945 (XB-47)
First flight:	Dec 1947 (XB-47)
First flight:	25 Jun 1950
Production completed;	Jun 1951

WEIGHTS

Loading Lb L.F.	
Empty 73, 240(E) Basic 74, 524(E) Operating 79, 457 Design 125, 000 3, 0 Combat *106, 060 Max T. O †157, 000 2, 0 Max Land †157, 000	
 (E) Estimated *For Basic Mission	Oles Section 1

†Limited by strength

+Limited by max T.O.

F	U	E	L
Location	No.	Tanks	Gal.
Fus, ctr* Fus, aft* Fus, aux*	* 1 1 1		2428 2727 3359 1004 9518
Grade			JP-3
	011		
Capacity Grade	(gal)		

DIMENSIONS

•
Wing
Span 116.0'
Incidence
Dihedral 00
Sweepback (LE)36037'
Length
Height
Tread 44.3'

1 or

B O M B S

No.	Size		Type
1	. 10, 000	• • • • • • • • • • • • • • • • • • • •	Special
Space and str 1	22,000 12,000 . 4000 . 2000		G.P. .,G.P. G.P. G.P.
Max Bomb Lo	ad	2	2,000 lb

G U N S

Space and provisions for tail turret mounting two (2) type M3, .50 cal machine guns.

Test installation of A-2 fire control

system in aircraft Serial No. 1906.

Test installation of A-5 fire control in aircraft Serial No. 1908.

ELECTRONICS

VHF Command AN/ARC-3
Radio CompassAN/ARN-6
Interphone AAF Combat
Marker BeaconRC-193A
Glide Path*AN/ARN-5A
I. F. F*SCR-695B
*Space provisions only

CONDITIO	N	S	MAX RANGE BASIC MISSION	HIGH ALT MISSION	FERRY RANGE	
TAKE-OFF WEIGHT		(1b)	ا 151,324	II 151, 324	III 141, 324	
Fuel at 6.5 lb/gal (grade JP-3)		(1b)	61,867	61.867	61.867	
Military load (Bombs)		(1b)	10,000	10,000	None	
Wing loading		(lb/sq ft)		106	98.97	
Stall speed (power off, landing conf	figurat		125	125	121	
Take-off ground run at SL		(ft)	6000	6000	5000	
Take-off to clear 50 ft		(ft)	7210	7210	6150	
Rate of climb at SL	3	(fpm)	3375	3375	3700	
Time: SL to 20,000 ft	3	(min)	7.9	7.9	7.2	
Time: SL to 30,000 ft	33334	(min)	14.7	14.7	13.3	
Service ceiling (100 fpm)	3	(ft)	38,100	38, 100	39,100	
Service ceiling (one engine out)	2	(ft)	35,500	35,500	37, 300	
OMBAT RANGE	(4)	(n. mi.)	2634	2325	2856	
Average speed		(kn)	416	413	424	
Initial cruising altitude		(ft)	33,000	38,000	36,000	
Final cruising altitude		(ft)	43,000	46,000	45,000	
Total mission time	•	(hr)	6.21	5.49	6.73	
OMBAT RADIUS	4	(n. mi.)	1350	1200	ALCONOMIC CONTRACTOR OF THE PARTY OF THE PAR	•
Average speed		(kn)	424	424		
Initial cruising altitude		(ft) (ft)	34,000 35,000	38,000 43,000		
Bombing altitude Bomb run speed	3	(kn)	474 ⑦	45,000		
Final cruising altitude	9	(ft)	45,800	45,000		
Total mission time		(hr)	6.45	5,76		
Total mission time		()	0, 45	0,10		
OMBAT WEIGHT	(5)	(lb)	106,060	106,060	85,644	* *
Combat altitude		(ft)	35,000	43,000	45,000	
Combat speed	2	(kn)	474 7	462	666	
Combat climb	2	(fpm)	2050	950	6	
Combat ceiling (500 fpm)	(2)	(ft)	44,300	44,300	6	
Service ceiling (100 fpm)	(2)	(ft)	46,200	46,000	6	AND AND THE RESIDENCE OF THE SECOND S
Service ceiling (one engine out)	(2)	(ft)	42,800	42,800	47,000	The second secon
Max rate of climb at SL	@@@@@@	(fpm)	6200	6200	6	
Max speed at 8800 ft	(I)	⑦ (kn)	521	521	<u>6</u>	
ANDING WEIGHT		(lb)	85,644	85,644	85,644	
Ground roll at SL		(ft)	4610	4610	4610	
Ground roll (auxiliary brake) Total from 50 ft		(ft) (ft)	2600	2600	2600	
Total from 50 ft (auxiliary brake)		(ft)	0.00	5730 3720	5730 3720	

.	1	34	power
	(1)	wax	bower

PERFORMANCE BASIS:

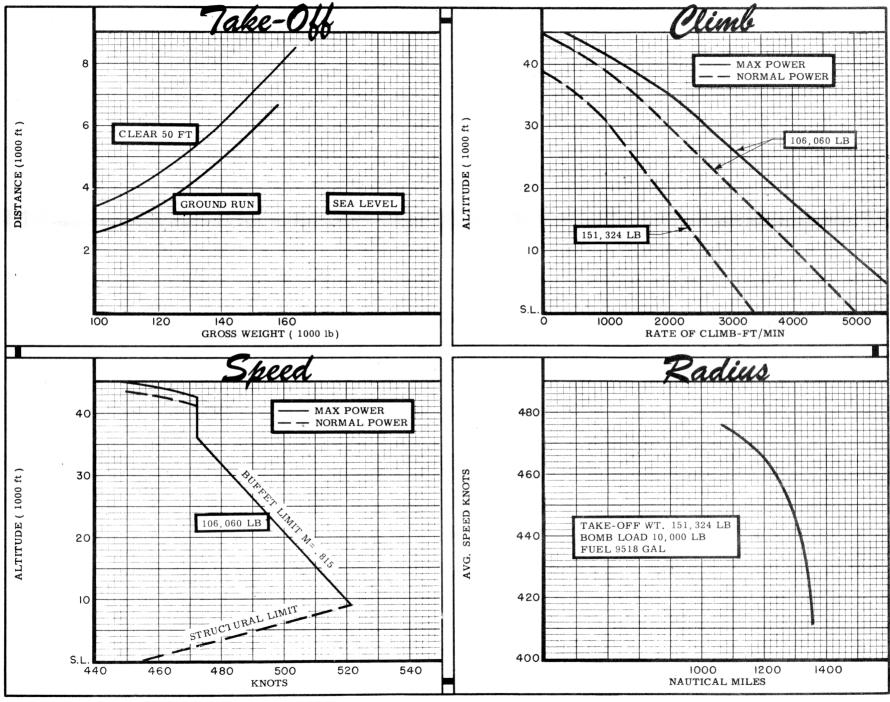
- (a) Data source: Flight test(b) Performance is based a powers shown on page 6

NOTES

Military power
 Normal power
 Detailed descriptions of RADIUS and RANGE missions are given on page 6.

⁽⁵⁾ For Radius Mission if radius is shown

⁶ Data not available
7 Limited to Mach. 815 by buffeting



NOTES

FORMULA: RADIUS MISSION I

Take-off, climb on course to 33,900 ft at military power and maximum rate of climb cruise out at long range speeds increasing altitude at decreasing airplane weight, make 6 minute normal power bomb run to target, drop bombs, conduct normal power evasive action for 6 minutes, start cruise to home base at 40,700 ft altitude arriving over home base at 45,600 ft altitude. Range free allowances are: 5 minutes normal power fuel consumption for starting engines and take-off, plus 6 minutes normal power evasive action, plus 10% of initial fuel for reserve.

FORMULA: RANGE MISSION I

Same as outbound leg of the basic radius formula continued without dropping the bombs until 90% of the initial fuel has been used. Flight is terminated at 43,000 ft altitude leaving 10% of fuel reserve for combat, evasi e action, landing reserve, or other considerations for which no distance is credited.

FORMULA: RADIUS MISSION II

Same as the basic radius formula except normal power cruise is used to give higher cruise altitude. Initial altitude for start of cruise out is 38,000 ft and final altitude over the home base is 45,000 ft. Range free allowances are the same as for the basic radius formula.

FORMULA: RANGE MISSION II

Same as outbound leg of radius mission II continued until 90% of initial

fuel load has been used at terminal altitude of 46,000 ft. Range free allowances are 5 minutes normal power fuel consumption for starting engines and take-off plus 10% of initial fuel load for landing and endurance reserve.

GENERAL NOTES

- (a) Times to climb do not include take-off time and time to accelerate to best climb speed.
- (b) Engine ratings shown on page 3 are engine manufacturer's guaranteed ratings. Power values used in performance calculations are as follows:

	J47-GE	-11	
S. L. Static	LB	RPM	MIN
Max:	5610	8030	. 5
Mil:	5610	8030	30
Nor:	4860	7450	Cont

- (c) For detailed planning refer to T.O. AN 01-20ENA-1.
- (d) Maximum take-off weight of 157,000 lb can be obtained with 22,000 lb bomb.

