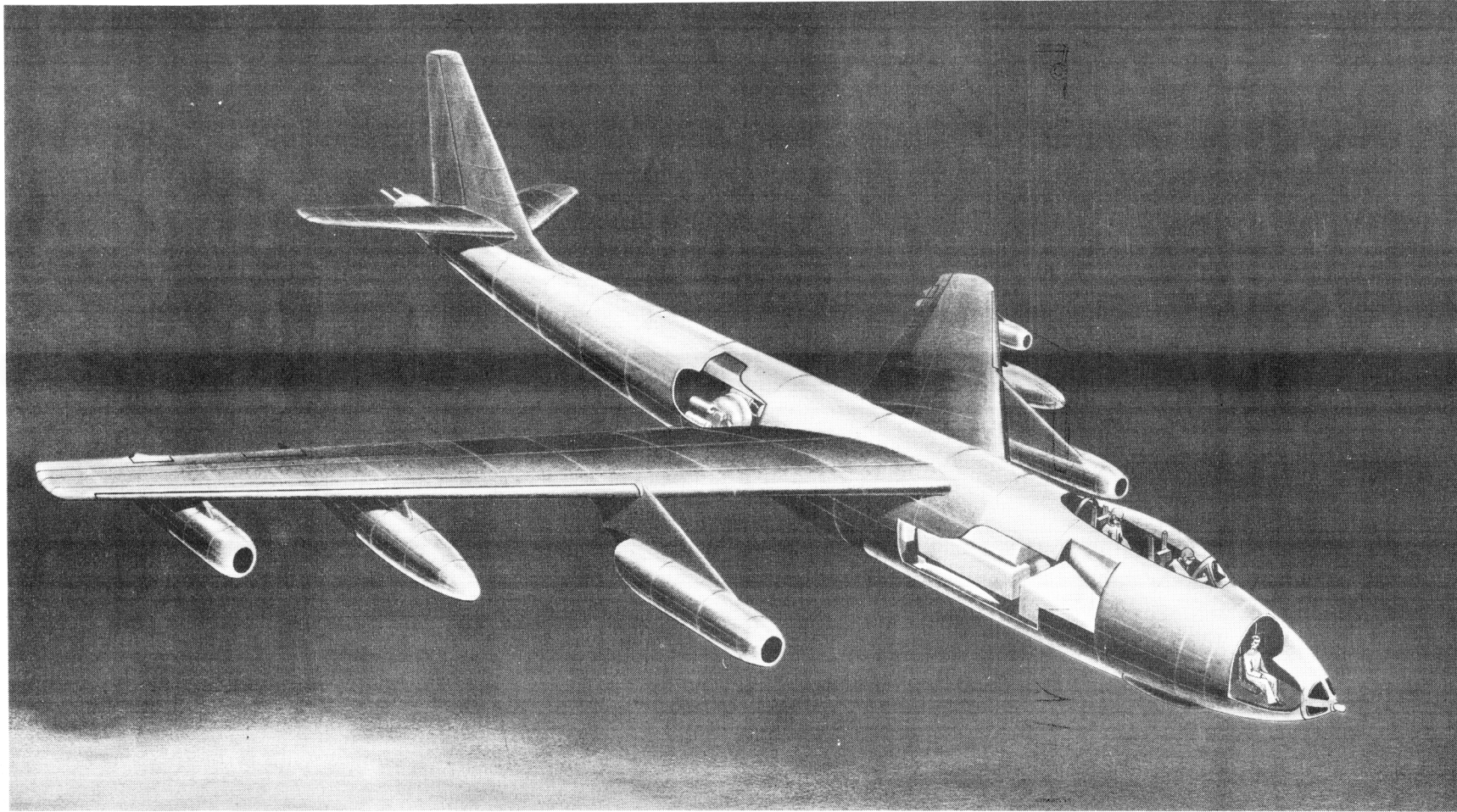


Classification cancelled  
 or changed to *Unclassified*  
 AUTH: AFSC AF 80 for class. Guide 1 Jan 64  
 By *A.R. Tomblin 18 Jul 64* -DOD Dir 5200.10  
 Signature and Grade 16 Dec 1966

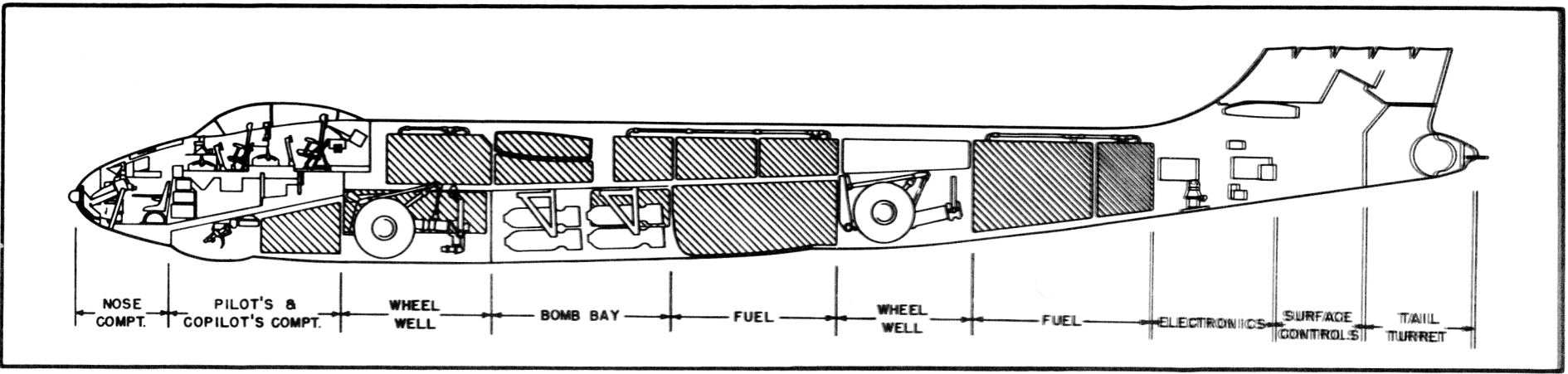
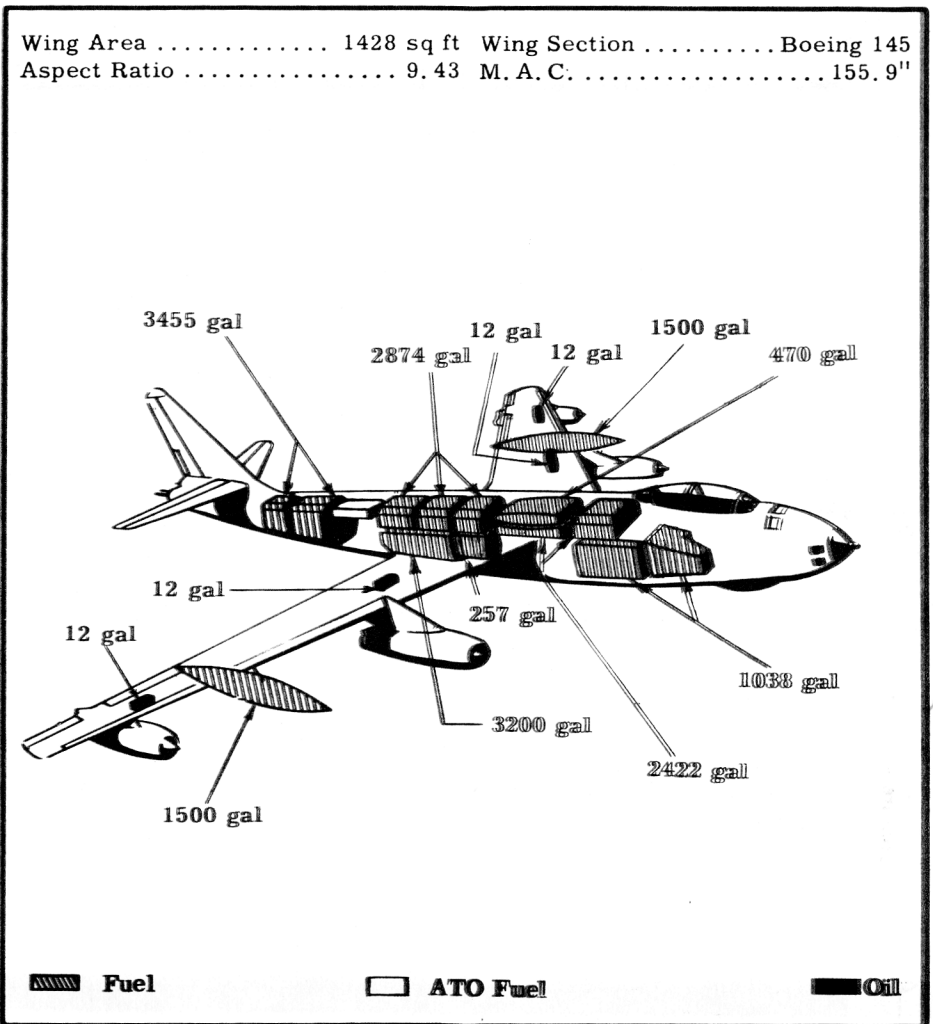
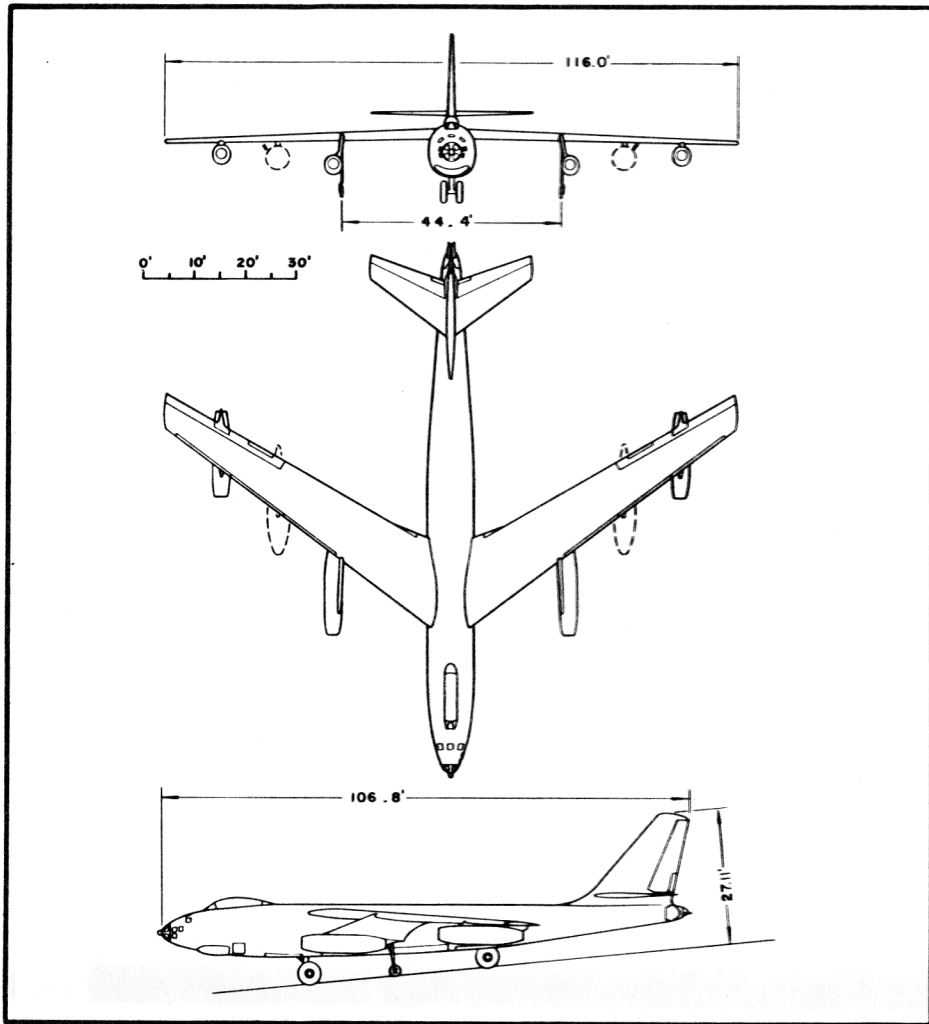


# Standard Aircraft Characteristics

BY AUTHORITY OF  
 COMMANDING GENERAL  
 AIR MATERIEL COMMAND  
 U. S. AIR FORCE

**B-47C**  
**STRATOJET**  
**Boeing**

FOUR J35-A-23  
 ALLISON



### POWER PLANT

No. & Model ..... (4) J35-A-23  
 Mfr ..... Allison  
 Engine Spec No ..... 286C  
 Type ..... Axial  
 Length ..... 156"  
 Diameter ..... 37.5"  
 Weight (dry) ..... 3490 lb

**JATO**

No. & Model .... (1) YLR-45-AJ-1  
 Mfr ..... Aerojet  
 System Weight (loaded) .... 7300 lb

or

No. & Model .... (1) YLR-47-K-1  
 Mfr ..... Kellogg  
 System Weight (loaded) ..... 7300 lb

### ENGINE RATINGS

S. L. Static	LB - RPM
Max:	9700 - 6100
Mil:	9700 - 6100
Nor:	8200 - 6100

**JATO**

4 Chambers ( 5000 lb thrust ea )  
 Total Thrust (lb) ..... 20,000  
 Duration (sec) ..... 60  
 (Propellant is white fuming nitric acid and gasoline)

### B O M B S

No.	Size	Type
1	10,000	Special

Or one of the following loadings which require kits and allow for bomb bay fuel:

1	4000	G. P.
3	2000	G. P.
8	1000	G. P.

Or one of the following loadings which require long bomb bay doors, Kits and allow for no bomb bay fuel:

1	25,000	S. A. P.
1	22,000	G. P.
1	12,000	G. P.
2	4000	G. P.
9	2000	G. P.
16	1000	G. P.

## Mission and Description

The B-47C airplane is high speed, medium range, jet bomber whose tactical mission is the destruction by bombs of land and naval materiel objectives.

The normal crew consists of a pilot, co-pilot-weaponier-gunner and bombardier-navigator. Seat ejection is provided for all crew members (tentative, pending approval of Hq, USAF).

Features incorporated for improved crew comfort and efficiency include heating, ventilation, pressurization, NESA glass de-icing for pilot's windshield and hydraulic boost on all control surfaces. Spoiler type ailerons for improved lateral control at low altitude and high speed are provided. The wing and empennage utilize anti-icing. The engine incorporates anti-icing features. Single point ground fueling and air to air refueling is provided as is continuous internal and external fuel tank purging. A two gun tail turret, with radar sigat at the copilot's station, is provided. A rotatable seat allows the copilot to face aft while functioning as fire control operator. Liquid fuel rockets for assisted take-off, a braking parachute for decreasing landing roll distance and anti-skid device for braking are provided. The bicycle type landing gear is electrically operated.

Major difference from B-47B is change from six J47 engines to four J35 engines.

## Development

Modification of B-47B with (4) J35 engines in lieu of (6) J47's

Design initiated: ..... Jan 50  
 First flight (YB-47C prototype): ..... Jul 51 (est.)  
 First acceptance: ..... May 53 (est.)  
 One B-47B bailed to Boeing for engine and related changes and tests.  
 Formerly designated B-56A

### DIMENSIONS

Wing  
 Area ..... 1428 sq ft  
 Span ..... 116'  
 Incidence ..... 2°45'  
 Dihedral ..... 0°  
 Sweepback (LE) ..... 36°37'  
 Length ..... 106.7'  
 Height ..... 27.9'  
 Tread (outrigger) ..... 43.9'

### G U N S

No.	Cal	Rds ea	Location
2	.50	600	Fus, tail

### C A M E R A S

Vertical station for one of the following:  
 K-17C, 6", 12" or 24" lens  
 K-22A, 6", 12" or 24" lens  
 K-38, 12", 24" or 36" lens  
 K-37, 12" lens, Night Camera and accessories

### W E I G H T S

Loading	Lb	L. F.
Empty	78,172(E)	
Basic	78,924(E)	
Design	125,000	3.0
Combat	*120,850	
Max T. O.	†185,000	2.0
Max Land	†185,000	2.17
Max in-flight refuel	‡202,000	2.0

(E) Estimated  
 \* For Basic Mission  
 † Limited by strength (includes 5000 lb JATO fuel)  
 ‡ With external tanks

### F U E L

Location	No. Tanks	Gal.
Wg, ctr	1	470
Fuselage	5	10,046
Wg, drop	2	3000
Bomb bay	1	3200
(Approx 60% SS)	Total	16,716
Spec	MIL-F-5624	
Grade	JP-3	

### OIL

Capacity (gal)	28
Spec	MIL-O-6081
Grade	1005

### ELECTRONICS

Command	AN/ARC-27
Liaison	*AN/APN-76
Radar Beacon	AN/ARC-21
Glide Path	AN/ARN-18
Omni-Direct. Recvr.	AN/ARN-14
Fire Control	A-2 System
Interphone	USAF Combat
Radio Compass	AN/ARN-6
IFF	AN/APX-6
Loran	AN/APN-9A
Marker Beacon	AN/ARN-12
Bombing System	K-4A
ECM	AN/APT-5A
ECM	**AN/APT-16

\*Space and structural provisions  
 \*\*Alternate installation

# Loading and Performance - Typical Mission

C O N D I T I O N S	BASIC MISSION	
TAKE-OFF WEIGHT ③ (lb)	185,000	
Fuel at 6.8 lb/gal(grade JP-1) (lb)	88,951	
Military load (Bombs) (lb)	10,000	
Wing loading (lb/sq ft)	129.5	
Stall speed(power off, land. config) (kn)	138	
Take-off ground run at SL (ft)	(7)	
Take-off ground run with JATO (ft)	5160	
Take-off to clear 50 ft ③ (ft)	(7)	
Take-off to clear 50 ft with JATO (ft)	5500	
Rate of climb at SL (fpm)	3575	
Time: SL to ft (min)	(7)	
Time: SL to ft (min)	(7)	
Service ceiling (100 fpm) ③ (ft)	36,800	
COMBAT RANGE ④ (n. mi.)	4255	
Average speed (kn)	426	
Initial cruising altitude (ft)	30,700	
Final cruising altitude (ft)	(7)	
Total mission time (hr)	10.07	
COMBAT RADIUS ④ (n. mi.)	2190	
Average speed (kn)	426	
Initial cruising altitude (ft)	30,700	
Bombing altitude (ft)	41,000	
Bomb run speed (kn)	(7)	
Final cruising altitude (ft)	44,500	
Total mission time (hr)	10.46	
COMBAT WEIGHT ⑤ (lb)	120,850	
Combat altitude (ft)	35,000	
Combat speed ① (kn)	486	
Combat climb (fpm)	(7)	
Combat ceiling (500 fpm) ① (ft)	42,900	
Service ceiling (100 fpm) (ft)	(7)	
Max rate of climb at SL ① (fpm)	7600	
Max speed at ft (kn)	(7)	
LANDING WEIGHT (lb)	89,945	
Ground roll at SL (ft)	(7)	
Ground roll (auxiliary brake) (ft)	(7)	
Total from 50 ft (ft)	4200	
Total from 50 ft (auxiliary brake) (ft)	(7)	



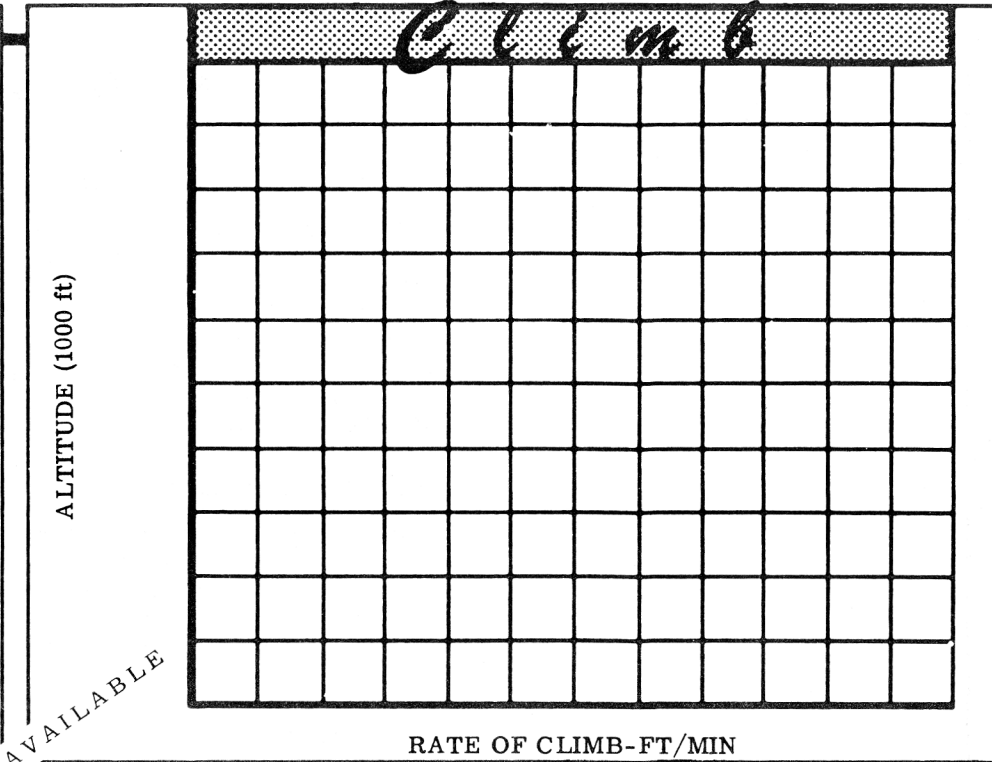
**NOTES**

① Max power  
 ② Military power  
 ③ Normal power  
 ④ Detailed descriptions of RADIUS & RANGE missions are given on page 6.  
 ⑤ For Radius Mission if radius is shown.

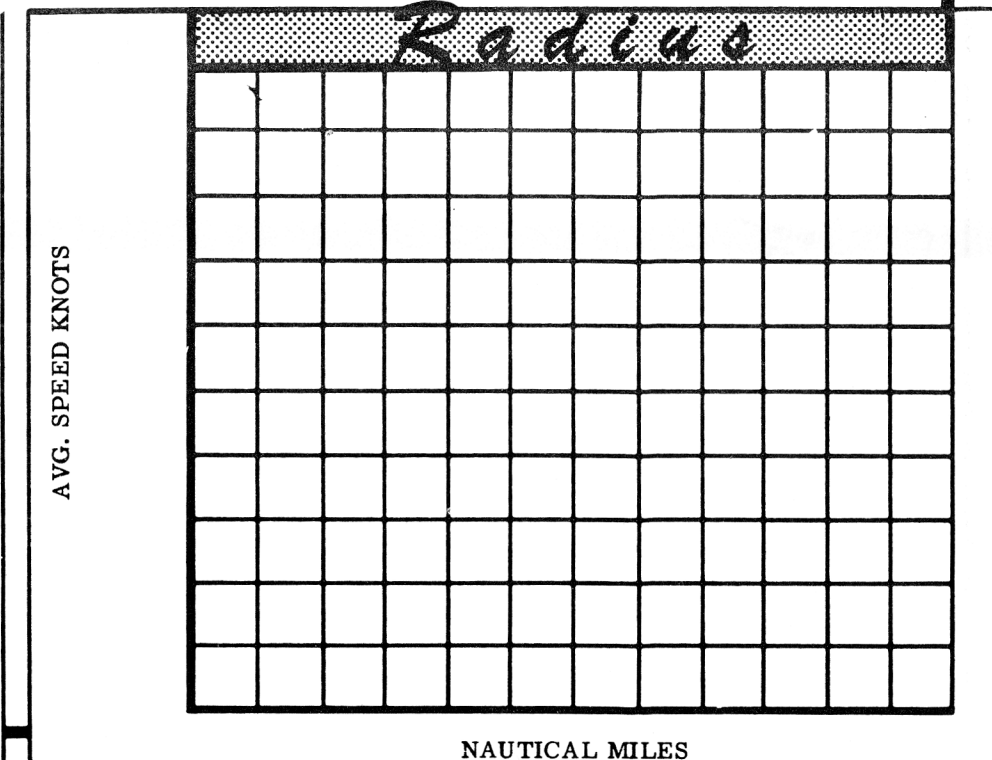
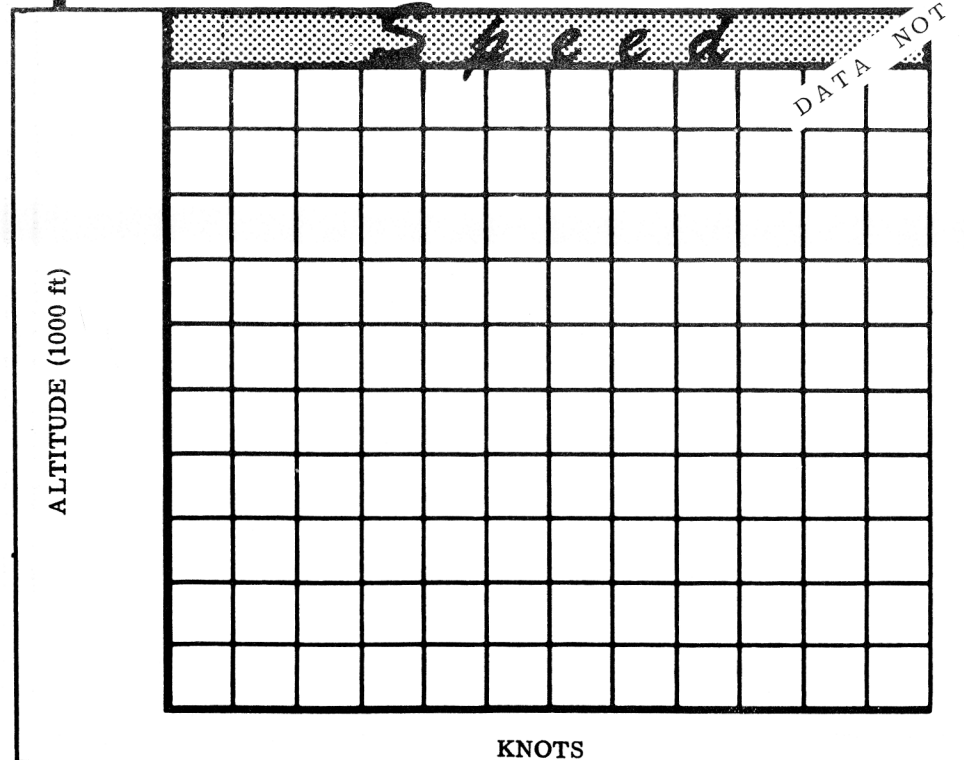
⑥ Take-off and landing distances are obtainable at sea level using normal technique. For airport planning, distances should be increased by appropriate factors to determine runway requirements.  
 ⑦ Data not available  
 ⑧ Includes 5000 lb JATO fuel.

**PERFORMANCE BASIS:**

(a) Data source: Estimates  
 (b) Performance is based on powers shown on page 3.  
 (c) In computing Radius and Range, specific fuel consumptions have been increased 5% to allow for variation of fuel flow in service aircraft.



DATA NOT AVAILABLE



**N O T E S**

FORMULA: RADIUS MISSION I

Start engines, take-off, climb on course to 30,700 ft at maximum power, cruise at long range speeds increasing altitude with decreasing airplane weight, make normal power bomb run to target, drop bombs, conduct normal power evasive action for 6 minutes, start cruise to home base at 41,000 ft arriving over home base at 44,500 ft. Range free allowances include 5 minutes normal power fuel consumption for starting engines and take-off, plus 6 minutes normal power evasive action and 10% initial fuel for reserve.

FORMULA: RANGE MISSION I

Start engines, take-off, climb on course to 30,700 ft at maximum power, cruise at long range speeds maintaining cruise ceiling (300 fpm with normal power and momentary weight) until 90% of initial fuel has been consumed. Range free allowances include 5 minutes normal power fuel consumption for starting engines and take-off, plus 10% of initial fuel for landing and endurance reserve.

GENERAL DATA:

(a) Detailed performance data were abstracted from Boeing Document D-10757, "Performance Potential B-47 Airplane - II", dated 5 June 50. These data have not been substantiated by the AMC.

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