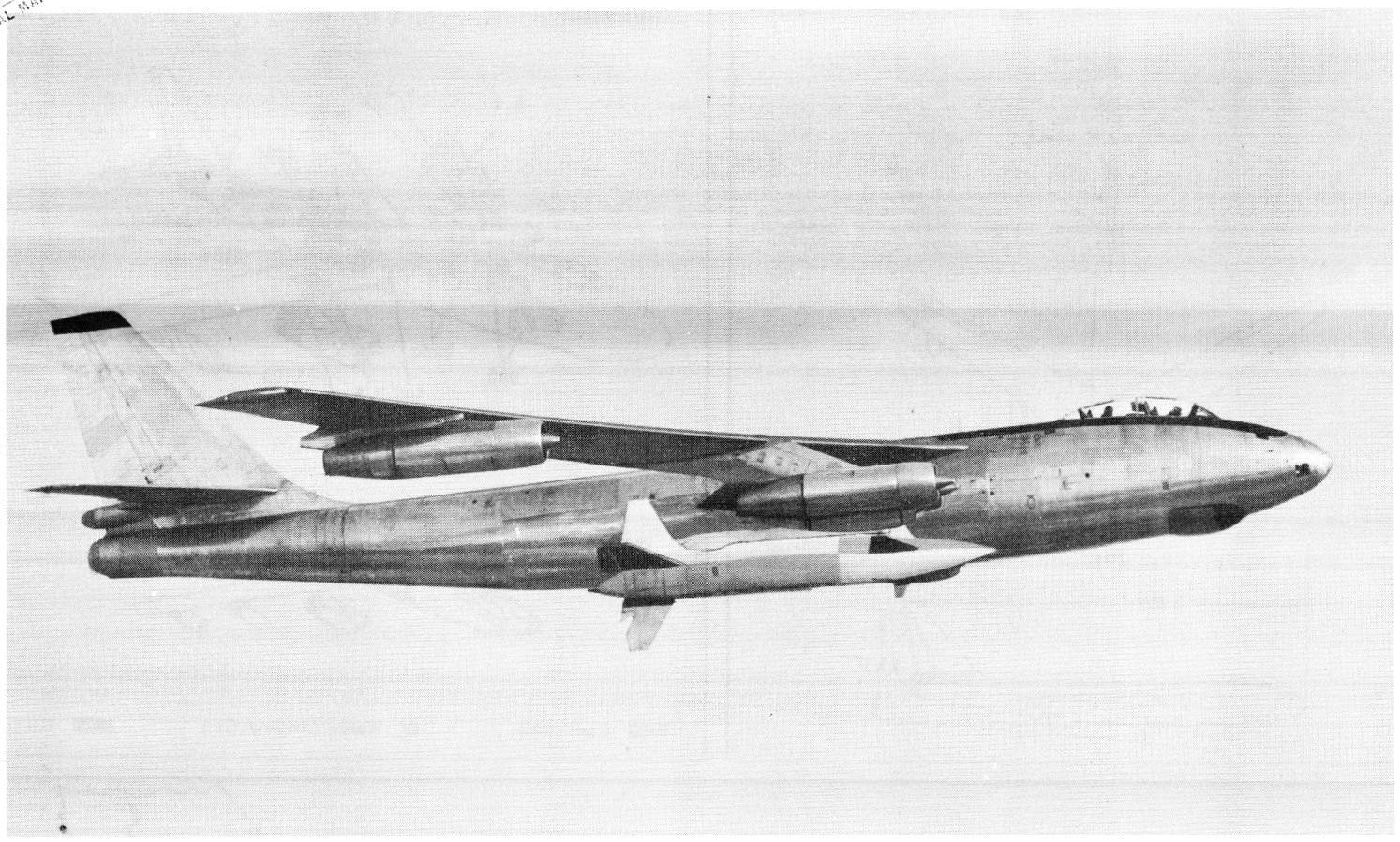


Confidential
~~C O N F I D E N T I A L~~

A-1
(D) B-47E/chan
SERVICE

CLASSIFICATION CANCELLED
(OR CHANGED TO *Unclassified*)
BY AUTHORITY OF *AFSS*
BY *g.p.* (NAME & GRADE OF INDIVIDUAL MAKING CHANGE)
(DATE) *152 64*

Classification cancelled
or changed to *Unclassified*
AUTH: *AFSS AFHC Sec. class.*
BY *a R. Sonneborn 1 Apr 64*
Signature and Grade



Standard Aircraft Characteristics

DB-47E
STRATOJET
Boeing

BY AUTHORITY OF
THE SECRETARY
OF THE AIR FORCE

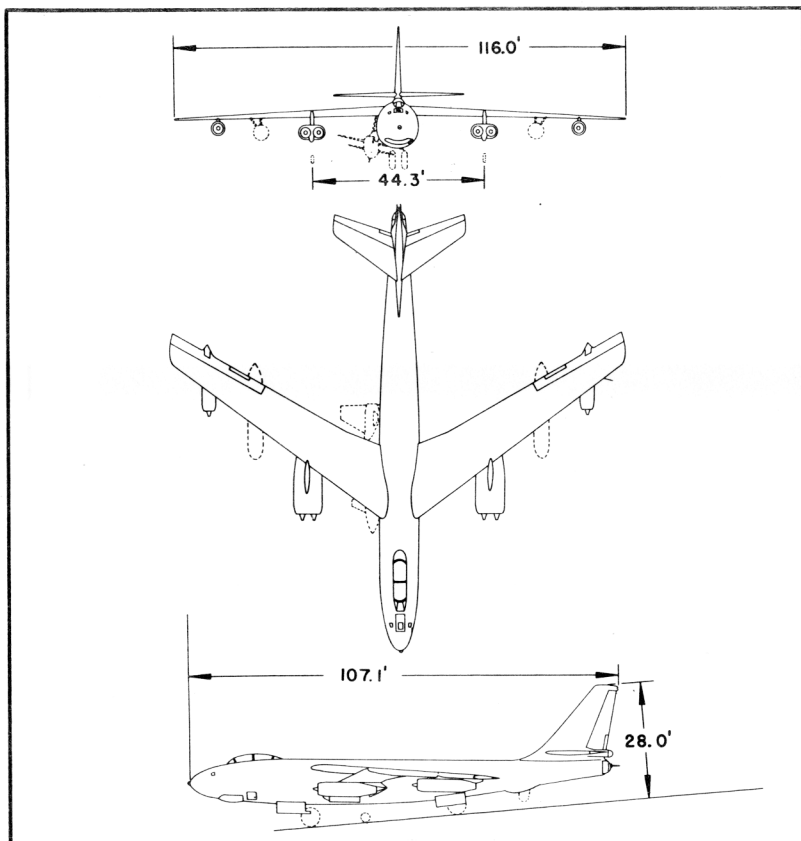
SIX J47-GE-25
GENERAL ELECTRIC

1 FEB 56

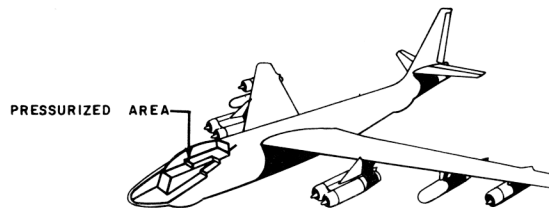
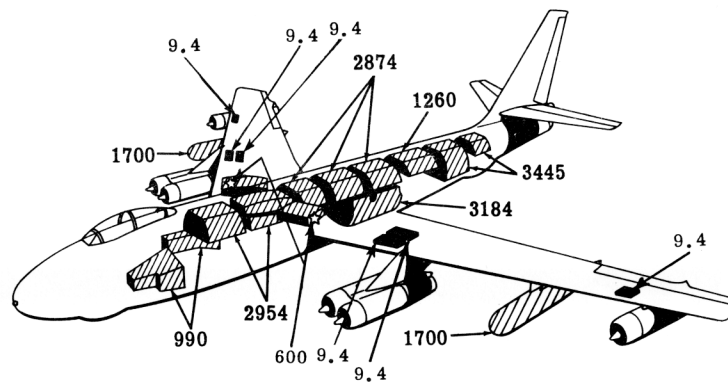
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DB-47E

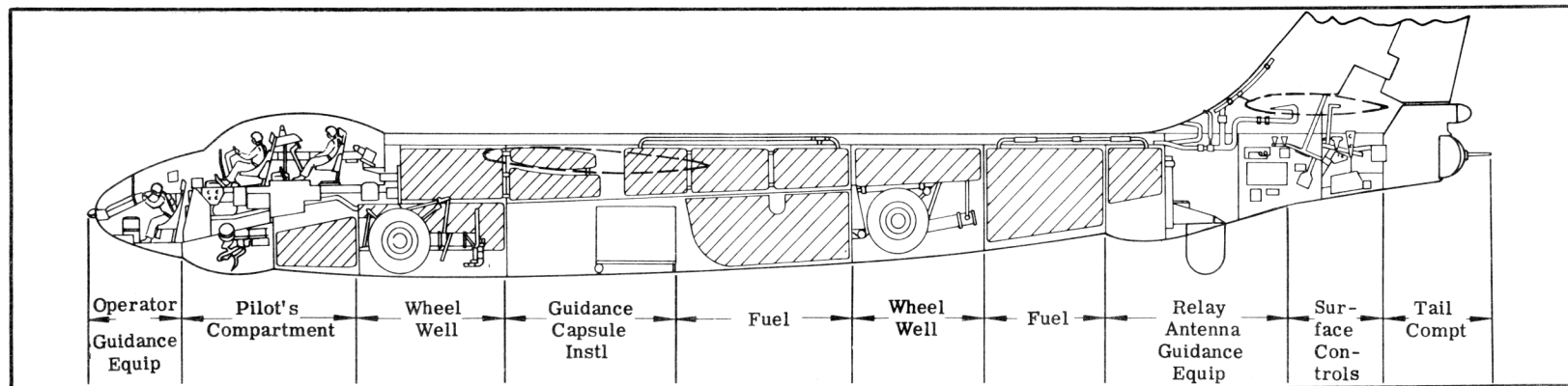
57WC-4984



Wing Area 1428 sq ft Wing Section Boeing 145
 Aspect Ratio 9.43 MAC 156 in



▨ Fuel (Gal) ☆ Water Alcohol (Gal) ■ Oil (Gal)



Loading and Performance - Typical Mission

C O N D I T I O N S			BASIC MISSION (DIRECTOR)	BASIC MISSION (BOMBER)	COMBAT RANGE (DIRECTOR)	BASIC MISSION (ECM)	FERRY RANGE
			I	II	III	IV	V
TAKE-OFF WEIGHT	⑤	(lb)	230,000	227,016	230,000	220,014	217,278 ⑨
Fuel at 6.5 lb/gal (grade JP-4)		(lb)	109,910	116,669	109,912	116,669	116,669
Payload	⑥	(lb)	18,200/845	10,000/845	18,200/845	845	None
Wing loading	⑫	(lb/sq ft)	155.5	153.0	155.5	148.3	146.5
Stall speed (power off)	⑬	(kn)	167	166	167	164	163
Take-off ground run at SL	① ⑭	(ft)	11,250	10,850	11,250	10,000	9700
Take-off ground run with ATO	① ④	(ft)	7830	7550	7830	6850	6600
Take-off to clear 50 ft	①	(ft)	12,850	12,450	12,850	11,600	11,300
Take-off to clear 50 ft with ATO	① ④	(ft)	9250	9000	9250	8260	8000
Rate of climb at SL	③	(fpm)	1595	1700	1595	1800	1800
Rate of climb at SL (one engine out)	②	(fpm)	1400	1615	1400	1740	1458
Time: SL to 20,000/service ceiling	③	(min)	17.7/33.5	1500/29.0	17.7/33.5	13.7/33.0	13.0/26.8
Service ceiling (100 fpm)	③	(ft)	24,800	28,000	24,800	29,300	27,750
Service ceiling (one engine out)	②	(ft)	21,000	23,000	21,000	25,000	22,100
COMBAT RANGE	⑦	(n. mi)	—	—	3140 ⑧	—	4095
COMBAT RADIUS	⑦ ⑧	(n. mi)	1715	2040	—	1982	—
Average cruise speed		(kn)	426	431	426	426	431
Initial cruising alt/Final cruising alt		(ft)	25,000/42,950	27,500/43,300	25,000/38,850	28,150/42,600	28,450/43,000
Target speed/altitude	③	(kn/ft)	458/33,600	463/37,150	454/38,850	463/38,000	—
Total mission time		(hr)	8.1	9.7	7.4	9.25	9.5
COMBAT WEIGHT		(lb)	130,955 ⑩	134,655	96,675 ⑩	138,955	96,580
Combat altitude/speed	②	(ft/kn)	33,600/485	37,150/484	38,850/485	38,000/474	43,000/483
Combat climb	②	(fpm)	985	830	1280	500	1000
Combat ceiling (500 fpm)	②	(ft)	38,100	39,100	44,500	38,000	45,600
Service ceiling (100 fpm)/one engine out	③	(ft)	38,400/35,700	40,400/37,900	44,800/42,100	38,850/37,250	47,000/43,600
Max rate of climb at SL	②	(fpm)	3465	4340	5790	4160	6400
Max speed at optimum alt	②	(kn/ft)	513/14,600	527/16,700	518/14,800	527/16,700	526/15,800
Basic speed at 35,000 ft	②	(kn)	482	490	488	490	493
LANDING WEIGHT		(lb)	96,675	95,483	96,675	98,472	96,580
Ground roll at SL/aux brake		(ft)	4700/2700 ⑪	4630/2660 ⑪	4700/2700 ⑪	4800/2750 ⑪	4700/2700 ⑪
Total from 50 ft/Aux brake		(ft)	5710/3710 ⑪	5640/3670 ⑪	5710/3710 ⑪	5812/3762 ⑪	5710/3710 ⑪

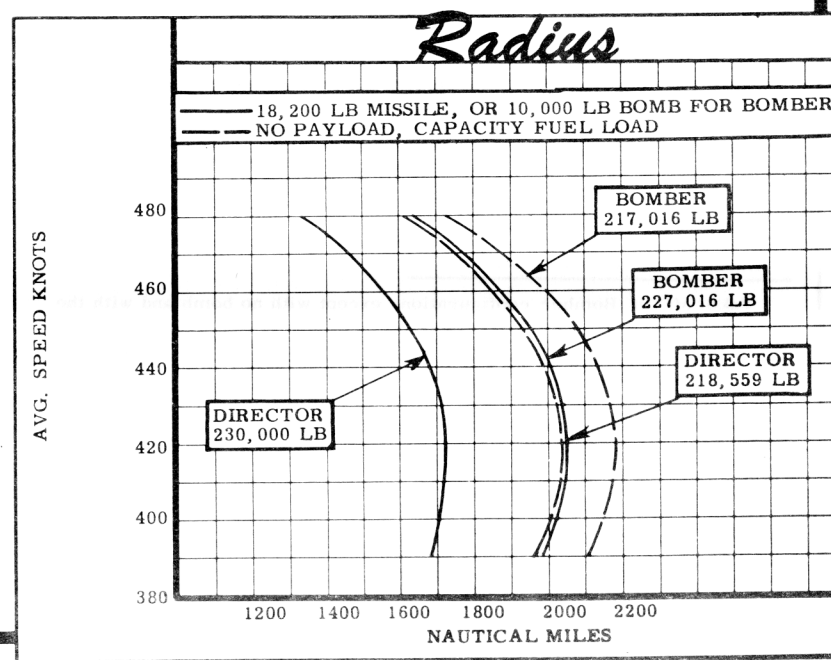
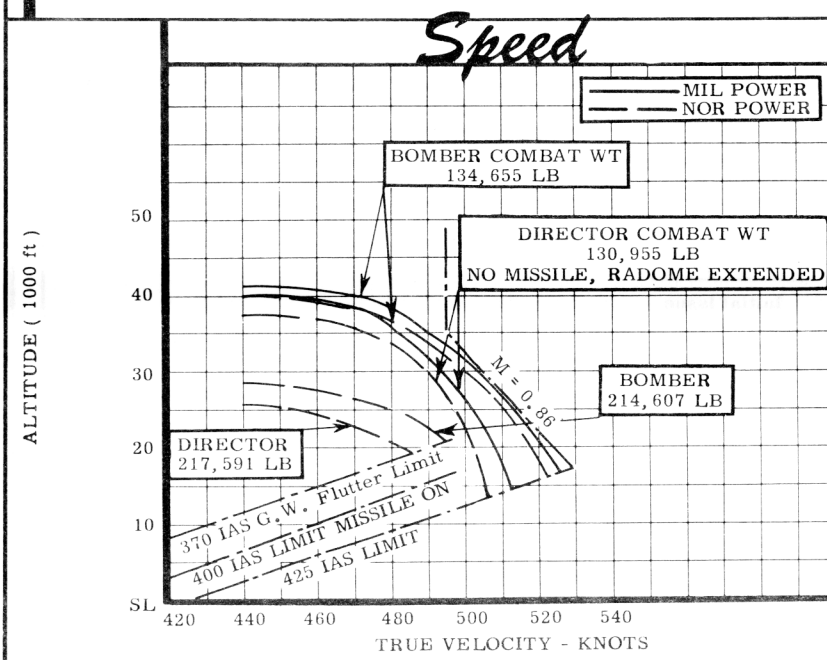
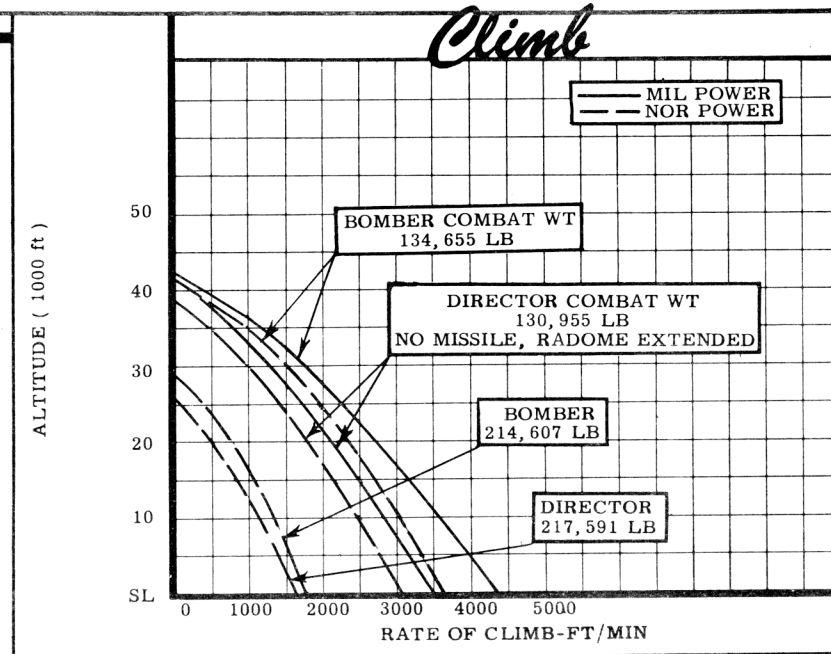
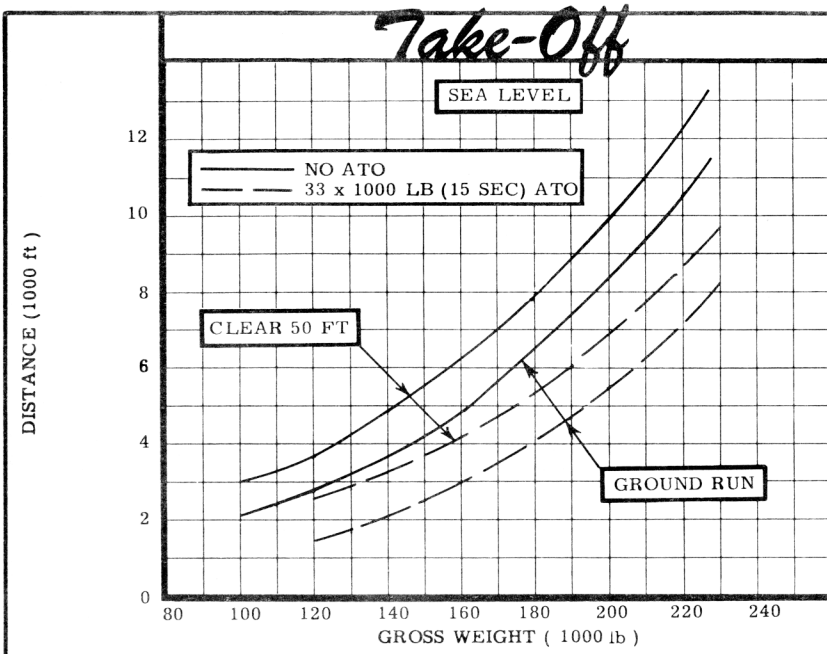
NOTES:

- ① Take-off power (with med. flow water injection)
- ② Military power
- ③ Normal power
- ④ With 33 x 1000 lb thr ext. ATO
- ⑤ Includes 7109 lb ATO & 5300 lb water/alcohol
- ⑥ 18,200 lb = GAM-63; 10,000 lb = Bomb load; 845 lb = Chaff
- ⑦ Detailed descriptions of RADIUS and RANGE missions given on page 6.
- ⑧ Does not include Missile Range
- ⑨ Configuration for Ferry Mission includes missile strut (Director config. less Missile)

- ⑩ Radome extended for combat performance items for Director Missions
- ⑪ With 32 ft brake-chute deployed at touchdown
- ⑫ Based on take-off wt. minus water/alcohol and 2706 lb ATO fuel.
- ⑬ Based on take-off wt. minus 5300 lb water/alcohol and 7109 lb ATO.
- ⑭ Based on take-off wt. minus 5000 lb (average weight during take-off run).

PERFORMANCE BASIS:

- (a) Data source calculated data based on flight tests of YDB-47E (AF 51-5219).
- (b) Performance is based on powers shown on page 6.



NOTES

FORMULA: DIRECTOR RADIUS MISSION I

Take off, climb on course to optimum cruise altitude at normal rated power, and cruise out at long range speeds and altitudes. Release drop-tanks when empty. Climb so as to reach cruise ceiling (radome down) 15 minutes before reaching the missile release point. Extend the radome and run into missile release point at normal rated power; release missile and chaff. Conduct 2 minute normal rated power evasive action and 8 minute normal rated power escape. Attain optimum cruise altitude during escape. Cruise to home base at long range speeds and altitudes with radome retracted. Range free allowances are 5 minutes at normal rated power for starting engines and take-off, 2 minutes normal rated power for evasive action, and 5% of initial fuel plus 30 minute endurance at sea level for reserve.

FORMULA: BOMBER RADIUS MISSION II

Take off, climb on course to optimum cruise altitude at normal rated power, and cruise out at long range speeds and altitudes. Release drop-tanks when empty. Climb so as to reach cruise ceiling 15 minutes before reaching the target. Run into target, release bombs, and conduct 2 minute evasive action and 8 minute escape at normal rated power. Attain optimum cruise altitude during escape. Cruise to home base at long range speeds and altitudes. Range free allowances are the same as those of Mission I.

FORMULA: DIRECTOR RANGE MISSION III

Take off, climb on course to optimum cruise altitude at normal rated power, and cruise out at long range speeds and altitudes. Release drop-tanks when empty. Climb so as to reach cruise ceiling (radome down) 15 minutes before reaching the missile release point. Extend the radome and run into the missile release point arriving there with only reserve fuel remaining. Release missile and chaff. Range free allowances are 5 minutes at normal rated power for starting engines and take-off, and reserve fuel as in Mission I.

FORMULA: ECM RADIUS MISSION IV

Take off in Bomber configuration, except with no bomb and with the ECM pod installed. Climb on course to optimum cruise altitude at normal rated power. Cruise out at long range speeds and altitudes. Release drop tanks when empty. Climb so as to reach cruise ceiling 15 minutes before reaching the target. Run into target, release chaff, and conduct 2 minute evasive action and 8 minute escape at normal rated power. Attain optimum cruise altitude during escape. Cruise to home base at long range speeds and altitudes. Range free allowances are the same as those of Mission I.

FORMULA: DIRECTOR FERRY RANGE MISSION V

Take off in Director configuration without missile and climb on course to optimum cruise altitude at normal rated power. Release drop-tanks when empty. Cruise out at long range speeds and altitudes. Land at remote base with only reserve fuel remaining. Range free allowances are 5 minutes at normal rated power for starting engines and take-off, and reserve fuel as in Mission I.

GENERAL NOTES:

- (a) Performance is based on B-47E flight test data adjusted per YDB-47E flight tests.
- (b) For detailed mission planning refer to T.O. 1B-47E-1.
- (c) Normal ATO technique is for ATO rockets of 15 second duration fired 10 seconds before take off.
- (d) Thrust values shown on page 3 are engine manufacturers guaranteed ratings. Thrust values used in performance calculations are as follows:

(6) J47-GE-25			
S. L. Static	Thrust-Lb	RPM	Minutes Allowable
Take-off	6770	7950	5
Military	5640	7800	30
Normal	5270	7630	Continuous

PERFORMANCE REFERENCE:

Boeing Document WD-13355, "Phase I Flight Testing of the YDB-47E Airplane".

REVISION BASIS:

Initial Issue

(5 NOV 55)

DB-47E

Force Museum
Air Force Base

Force Museum

CONFIDENTIAL

1 FEB 56

Wright-Patterson Air Force Base
Ohio 45433