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# TACTICAL PLANNING

## Characteristics & Performance Chart

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TECHNICAL SERVICE COMMAND, WRIGHT FIELD, DAYTON, OHIO

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BOMBER

CARGO

FIGHTER

GLIDER

FEBRUARY -1945  
WF-1-27-45-950

*Important*  
SEE PAGE 2A

X-24754



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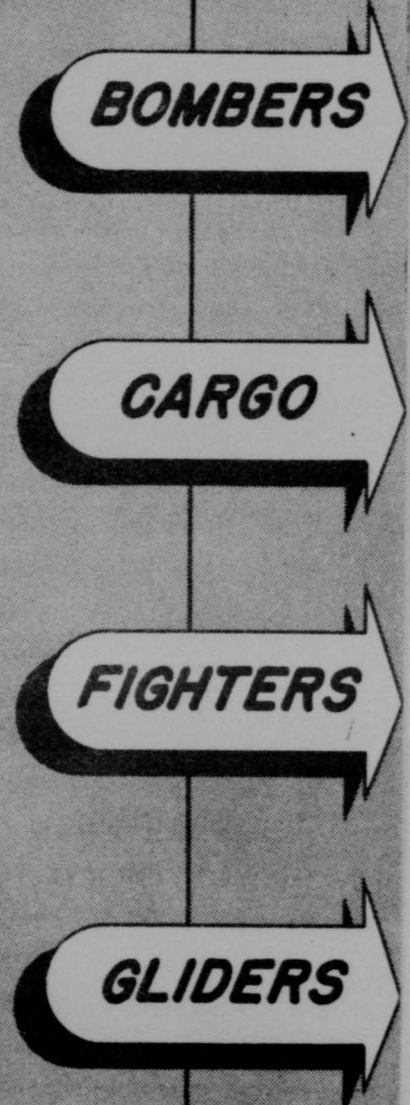
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*Important*  
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## FOREWORD

This chart is a supplement to the Semi-Annual Chart of Engineering Characteristics and Performance, EE-306-1, "Production". This issue covers typical models now in theater operation and is kept up to date as new models are received by the A.A.F.

All data includes service allowances based on theater experience. Individual airplanes may vary appreciably due to age and service changes. Data printed in red are preliminary and subject to revision after flight check. Data printed in black have been derived from information obtained in flight but are not actual flight test results. For detailed planning see Technical Orders listed as references.

## WARNING

*THESE CHARTS CONTAIN CONSERVATIVE AVERAGES FOR TACTICAL PLANNING AND ARE NOT SUITABLE FOR AERODYNAMIC ANALYSIS.*

Performance is based on the requirements of Army-Navy Aeronautical specification AN-H-8a; "Handbooks, Pilot's Flight Operating Instructions" which sets forth specific allowances for practical service operation. Take off and landing distances are 125% of optimum at 3000 ft. on hard surface, no wind, standard temperature. Weights are "Basic" weight plus crew, oil, full ammunition, fuel and bombs, cargo, passengers or troops as applicable. For bombers and cargo, "War Maximum" weights are based on limiting applied positive maneuver factor of 2.00G unless otherwise specified. Time to climb is minimum within published engine limits. In future issues speed and climb with "Military Power" will be replaced with "War Emergency" when applicable. Range and endurance are based on the following assumptions:

- (a) Allowance for warm up, taxi, run up, take off, and landing, (equal to ten minutes at rated power).
- (b) Allowances for fuel consumed in climb. Distance and time to climb are included in range and endurance.
- (c) Allowance for carrying bombs and droppable tanks entire flight.
- (d) Allowance for 10% net ideal range and endurance for miscellaneous differences in airplanes, equipment, pilot technique, atmospheric conditions other than wind, unusable fuel, weight, and similar variables. (For example, range varies day and night due to fuel expansion prior to take off.)

Prepared by Technical Data Laboratory of the Engineering Division

THIS REPORT SUPERSEDES PREVIOUS EE-393 PUBLICATIONS; SUPERSEDED PUBLICATIONS, IF NO LONGER OFFICIALLY REQUIRED, WILL BE DESTROYED IN THE MANNER PRESCRIBED IN A.R.380-5.

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2a

# ATTENTION!

1 FEBRUARY 1945

## Subject

Distribution of Tactical Planning Characteristics and Performance Chart-Report EE-393.

To

All Recipients of Subject Report.

1. A review is being made of the distribution of the attached report to determine the individual use made of this publication and to justify its continued distribution. It is requested that the following questionnaire be completed and returned.

## Note

If no reply is received by this office within 30 days from the above date by activities within the continental United States and within 60 days by overseas activities, no further distribution of this report will be made to your office.

CUT ALONG THIS LINE

TIAL

DATE: \_\_\_\_\_

TO: Director,  
Air Technical Service Command,  
Wright Field, Dayton, Ohio.

Attention: TSEAL-6D.

SUBJECT: Distribution of Report EE-393.

1. In justification of the continued distribution of \_\_\_\_\_ copy (copies) of subject report to (Give complete mailing address) \_\_\_\_\_

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a. The following use is made of the subject report: \_\_\_\_\_

\_\_\_\_\_  
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b. Comments for improving the value of this report: \_\_\_\_\_

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(Continue on reverse side if necessary)

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### SECURITY CLASSIFICATION EE-393

AS OF:  
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MODEL & BLOCK NO.	ENGINE					PROPELLER		SIZE				WEIGHT			FUEL		GUNS		BOMBS		CARGO		PERFORM			MODEL & BLOCK NO.														
	ENGINE MFR.	MODEL	SUPERCHARGER	TAKE-OFF H.P.	MAR EMERG. /ALT.	MILITARY /ALT.	CONTINUOUS/ALT.	PROP. MFR.	PROP. DIA.	NO. OF BLADES	PROP. TYPE	SPAN	LENGTH	HEIGHT	TREAD	WING AREA	BASIC	COMBAT	MAR MAX.	COMBAT CREW	TANK TYPE OR LOCATION	NO. OF TANKS & CAPACITY	NO. & LOCATION	CAL. /RDS. /TYPE	ROCKET INS.		NO. & SIZE (INTER.)	NO. & SIZE (EXT.)	MAX. LOAD	STATION	CAPACITY	MAX. LOAD	RADIO	REMARKS & REF.	TAKE-OFF & LAND	HIGH SPEED & CLIMB	RANGE & END.	REMARKS ON PERFORMANCE	FOOT NOTES	SILHOUETTES
B-17																																								B-17
B-24																																								B-24
B-29																																								B-29
B-32																																								B-32
B-25																																								B-25
B-26																																								B-26
A-20																						2																	A-20	
A-26																																								A-26
A-36																																								A-36
OTHER CARGO C-60																																							OTHER CARGO C-60	
P-38																																							P-38	
P-39Q(20-30 INCL) OTHER P-39's																																							P-39Q(20-30 INCL) OTHER P-39's	
P-40W																																							P-40W	
OTHER P-40's																																							OTHER P-40's	
P-47M & N																																							P-47M & N	
OTHER P-47's																																							OTHER P-47's	
P-51																																							P-51	
P-61																																								P-61
P-63																																								P-63
CG-4A																																								CG-4A
CG-13																																								CG-13
CG-15																																								CG-15

NOTES

1. ONLY P-47N FUEL IS CONFIDENTIAL, OTHER P-47'S ARE RESTRICTED

2. ONLY A-20J & K COMBAT CREWS ARE RESTRICTED, OTHER A-20'S ARE UNCLASSIFIED.

3. ONLY A-20H & J GUNS ARE RESTRICTED, OTHER A-20'S ARE UNCLASSIFIED.

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(Page 2 & 44)...FOREWORD  
 (Page 5 & 44)...DEFINITIONS  
 (Page 12)...B-29 SAMPLE MISSION  
 (Page 25)...B-32 SKETCH  
 (Page 42)...FIGHTER COMBAT RADIUS OF ACTION

*Legend*

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- X UNCLASSIFIED

EACH DOCUMENT SHOULD BE GRADED ACCORDING TO ITS OWN CONTENT AND NOT NECESSARILY ACCORDING TO ITS RELATIONSHIP TO ANOTHER DOCUMENT (PARAGRAPH 8, & AR 380-5)

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## DEFINITIONS

## CHARACTERISTICS

**SUPERCHARGER:** "TURBO" indicates exhaust driven turbine with single speed integral diffuser.

**BHP/ALT:** Brake horsepower per engine at critical altitude with ram.

**T:** Maximum power for take off.

**M:** Military power for combat at altitude shown, (usually limited to 15 min. duration)

**WE:** War emergency power for combat at altitude shown, (limited to 5 min. duration only)

**C:** Maximum power for continuous operation.

**Note:** Maximum cruise power is the maximum power for unlimited operation with lean mixture.

**SIZE:** Approximate dimensions for storage planning.

**Length:** Does not include protruding guns.

**Height:** Maximum in three point position.

**Wing area:** Standard aerodynamic surface area.

**Tread:** Center to center main wheels: (outboard if dual).

**WEIGHTS:** Approximate averages for planning purposes.

**B:** Basic weight includes weight empty, trapped fuel and oil, equipment, armament, etc. but does not include disposable fuel, oil, droppable tanks, ammunition, bombs, cargo, nor crew.

**C:** Combat weight is based on latest confirmed information from theaters and usually includes full built-in fuel, full ammunition, and an arbitrary bomb or cargo load.

**W:** War maximum weight for special missions, limited by structural considerations, based on a positive maneuver factor of 2.0 unless otherwise noted.

**FUEL:** Standard fuel tankage and capacities.

**ARMAMENT:** Resume' of information in the "ARMAMENT & BOMB INSTALLATIONS" (Chart EE-306A)

**RADIO** Resume' of typical models installed.

## PERFORMANCE

**BOMBS:** Maximum rack capacity for standard sizes.

**CARGO:** Cargo, passenger or troop capacities.

**Max. load:** One size only on each bomb rack (in some cases a reduction in fuel load is required) Practical total cargo based on gross weight.

**TAKE OFF & LANDING:** Values are at least 125% of optimum.

**(At 3000' runway alt.)**

**Gross weight:** Arbitrary values for reference only.

**(To clear 50')** Distances representative of minimum airport requirements.

**Ground run:** Distances representative of minimum runway requirements.

**Landing speed:** Practical minimum for average pilot.

**HIGH SPEED & CLIMB:** Values are for clean new airplanes.

**Military power:** For limited periods of combat operation.

**War emergency power:** (Performance with War Emergency ratings are shown when applicable).

**Time of climb:** Minimum time to climb from sea level based on military power climb for allowable time and maximum continuous power climb from then on.

**RANGE & ENDURANCE:** See discussion in "FOREWORD", page 2

**Take off weight:** Brief list of typical gross weights.

**Bombs, etc:** Typical loadings combined with various tank capacities. No consideration is given to loadings requiring partially filled tanks.

**Note:** Take off weights with corresponding load and fuel quantity applies to all values to the right on the same line.

**Max. cont. power:** High speed cruising with rich mixture. (For emergency cruising only)

**Max. cruise power:** Maximum continuous operation with lean mixture setting.

**Long range:** Practical maximum range for planning purposes under all conditions set forth.

RED PRINT: Preliminary estimates or calculated data.

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BOEING (SEATTLE) "80"

MODEL & BLOCK NO.	ARMAMENT			BOMBS			FUEL U.S. GAL. (MAXIMUM)
	NO GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-17P-80 (-1 thru -27)	1-.30 2-.50 2-.50 2-.50	500 a 300 400 500	NOSE...FLEX. SIDE WAIST-PL. UPPER TURRET LOW BALL TRG. TAIL...FLEX.MT.	2-2000 6-1600 5-1000 12- 500 16- 250 21- 100	NONE	9600	2550
B-17P-80 (-30 thru -50)	NONE 1) 2) 2) 2)	NONE 300 b 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-PL. UPPER TURRET LOW BALL TRG. TAIL...FLEX.MT.	2-2000 6-1600 6-1000 12- 500 16- 250 21- 100	2-4000 2-2000 2-1500 2-1000	6-1600 2-1600x 17600	AS ABOVE
B-17P-80 -55 thru 1st.30(-85)	2) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-PL. UPPER TURRET LOW BALL TRG. TAIL...FLEX.MT.	A S A B O V E			2550 (-95 thru -75) 3630 -50 & SUB.
B-17P-80 Last 70(-85) thru -130	3) 1) 2) 2) 2)	300 300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-PL. UPPER TURRET LOW BALL TRG. TAIL...FLEX.MT.	AS ABOVE EXCEPT THAT EXTERNAL BOMB RACKS DELETED AFTER 15th.(-95)			3630
B-17P-80 (-1 thru -110)	2) 1) 2) 2) 2)	500 300 400 500 565	CHEEK...FLEX. CHIN TURRET RADIO COMPART. SIDE WAIST-PL. UPPER TURRET LOW BALL TRG. TAIL...FLEX.MT.	2-2000 6-1600 6-1000 12- 500 16- 250 21- 100	PROVISION FOR RACKS	9600	AS ABOVE

NOTES: a NOSE GUN DELETED ON LAST 25 (-27). b EARLY B-17P MODELS CARRY 300 RDS./GUN.  
c RADIO COMPART. GUN ADDED AFTER 15th.(-30). x EXTERNAL  
d CHECK GUNS ADDED AT MOD. CENTER.

DOUGLAS (LONG BEACH) "DL"

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MODEL & BLOCK NO.	ARMAMENT			BOMBS			FUEL U.S. GAL. (MAXIMUM)
	NO GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-17P-DL -1 thru 1st.13(-10)	1-.30 2-.50 2-.50 2-.50	500 a 300 400 500	NOSE...FLEX. SIDE WAIST-PL. UPPER TURRET LOW BALL TRG. TAIL...FLEX.MT.	2-2000 6-1600 5-1000 12- 500 16- 250 21- 100	NONE	9600	2550
B-17P-DL Last 12(-10) thru -20	2) 1) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-PL. UPPER TURRET LOW BALL TRG. TAIL...FLEX.MT.	AS ABOVE			PROV. FOR EXTERNAL RACKS ON -20 & SUB.
B-17P-DL -25 thru 1st.21(-35)	A S A B O V E			AS ABOVE			PROV. FOR EXTERNAL RACKS AS ABOVE
B-17P-DL Last 19(-35) thru -65	3) 1) 2) 2) 2)	300 300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-PL. UPPER TURRET LOW BALL TRG. TAIL...FLEX.MT.	A S A B O V E			AS ABOVE
B-17P-DL (-1 thru -70)	2) 1) 2) 2) 2)	500 300 400 500 565	CHEEK...FLEX. CHIN TURRET RADIO COMPART. SIDE WAIST-PL. UPPER TURRET LOW BALL TRG. TAIL...FLEX.MT.	2-2000 6-1600 6-1000 12- 500 16- 250 21- 100	PROVISION FOR RACKS	9600	AS ABOVE

NOTES: a NO NOSE GUN ON 1st.13(-10). b EARLY B-17P MODELS CARRY 300 RDS./GUN.  
c NOT CARRIED ON -1 & -5.  
d CHECK GUNS ADDED AT MOD. CENTER. x EXTERNAL

VEVA (BURBANK) "VE"

MODEL & BLOCK NO.	ARMAMENT			BOMBS			FUEL U.S. GAL. (MAXIMUM)
	NO GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-17P-VE (-1 thru -10)	1-.30 CAL.(300 RES.) NOSE GUN IN 1st. 12 AIRPLANES; NOSE GUN DELETED ON NEXT 25 THRU (-10). NO RADIO COMPARTMENT GUN UNTIL LAST 11.(-15). OTHER ARMAMENT AS ABOVE.			2-2000 6-1600 6-1000 12- 500 16- 250 21- 100	NONE	9600	2550
B-17P-VE (-15 & -20)	2) 1) 2) 2) 2)	500 300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-PL. UPPER TURRET LOW BALL TRG. TAIL...FLEX.MT.	AS ABOVE			EXTERNAL RACKS ON Last 31 (-20) & SUB.
B-17P-VE (-25 & -30)	A S A B O V E			AS ABOVE			2550 (B-17P-25) 3630 (B-17P-30)
B-17P-VE (-35 thru -50)	3) 1) 2) 2) 2)	500 300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-PL. UPPER TURRET LOW BALL TRG. TAIL...FLEX.MT.	AS ABOVE			NONE 9600 3630
B-17P-VE (-1 thru -90)	2) 1) 2) 2) 2)	500 300 400 500 565	CHEEK...FLEX. CHIN TURRET RADIO COMPART. SIDE WAIST-PL. UPPER TURRET LOW BALL TRG. TAIL...FLEX.MT.	2-2000 6-1600 6-1000 12- 500 16- 250 21- 100	PROVISION FOR RACKS	9600	AS ABOVE

NOTES: a NOT ON B-17P-1 & -5. b EARLY B-17P MODELS CARRIED 300 RDS./GUN.  
c EXTERNAL BOMB RACKS DELETED ON LAST 4(-30). x EXTERNAL  
d CHECK GUNS ADDED AT MOD. CENTER.

GENERAL NOTE:  
LATEST INVESTIGATION SHOWS THAT 6-1600 LB.  
ARMOR PIERCING BOMBS MAY BE CARRIED, BUT  
BOMB RAIL LOAD FACTORS AND CLEARANCES ARE  
REDUCED AND MANEUVERING OF AIRPLANE MUST  
BE LIMITED ACCORDINGLY.

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CONSOLIDATED (SAN DIEGO) "CO"

MODEL & BLOCK-NO.	ARMAMENT			BOMBS			FUEL U.S. GAL. (MAXIMUM)
	NO GUNS & CALIBER	RDS. PER. GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-24D-CO D thru 1st.94(-15)	1) 2) 2)	.50 200 600	NOSE.....FLEX. UPPER TURRET TAIL TURRET	4-2000 8-1000 12- 500 12- 250 20- 100	NONE	8000	2364
B-24D-CO Last 36(-15) thru -20	1) 2) 2)	.50 200 600	NOSE.....FLEX. UPPER TURRET TUNNEL...FLEX. TAIL TURRET	A S	A B O V E		2364 Last 36(-15) 3614 -20 & sub.
B-24D-CO -25 thru 1st.25(-140)	3) 2) 2) 1) 2)	.50 100 250 400 600	NOSE.....FLEX. SIDE WAIST..FL. UPPER TURRET TUNNEL...FLEX. TAIL TURRET	4-2000 8-1600 8-1000 12- 500 12- 250 20- 100	NONE	12800	3614
B-24D-CO Last 9(-140) thru -170	3) 2) 2) 2)	.50 100 508 600	NOSE.....FLEX. SIDE WAIST..FL. UPPER TURRET LOW.BALL TRR. TAIL TURRET	A S	A B O V E		AS ABOVE
B-24J-CO (-1 thru -210) B-24L-CO (-1 thru -20) B-24M-CO (-1 thru -50)	2) 2) 2) 2)	600 250 <sup>b</sup> 400 508 600	NOSE TURRET SIDE WAIST..FL. UPPER TURRET LOW.BALL TRR. See "a"	A S	A B O V E		AS ABOVE

NOTES: a B-24J's HAVE TAIL TURRET; B-24L's HAVE HAND HELD GUNS IN TAIL &  
a NOT ON B-24D-25 B-24M's HAVE LIGHT WEIGHT TAIL TURRET.  
b E-6 MOUNT & INCREASE TO 500 RDS/GUN ON -210.

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CONSOLIDATED (FT. WORTH) "CP"

MODEL & BLOCK-NO.	ARMAMENT			BOMBS			FUEL U.S. GAL. (MAXIMUM)
	NO GUNS & CALIBER	RDS. PER. GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-24D-CF (-1 & -5)	3) 2) 2) 1) 2)	.50 100 250 400 600	NOSE.....FLEX. SIDE WAIST..FL. UPPER TURRET TUNNEL...FLEX. TAIL TURRET	4-2000 8-1000 12- 500 12- 250 20- 100	NONE	8000	3614
B-24D-CF (-10 thru -20)	A S	A B O V E				12800	AS ABOVE
B-24J-CF (-1 thru -105) B-24K-CF (-1 thru -15)	2) 2) 2) 2)	.50 600 250 400 508 600	NOSE TURRET SIDE WAIST..FL. UPPER TURRET LOW.BALL TRR. TAIL TURRET	A S	A B O V E (SEE a)		AS ABOVE
B-24K-CF (-20 thru -30)	2) 2) 2) 2)	.50 600 500 <sup>b</sup> 400 508 600	NOSE TURRET S.WAIST-K6 MT. UPPER TURRET LOW.BALL TRR. TAIL TURRET	A S	A B O V E		AS ABOVE
B-24J-CF (-101 to -)	A	S	A	B	O	V	E

NOTES: a B-10 SHACKLES FOR 8-1600 LB. BOMBS START ON 2101st.FORD KNOCK-DOWN SET.  
b B-24K-20 HAS PROVISIONS FOR ONLY 250 RDS. PER GUN AT SIDE WAIST POSITION.

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DOUGLAS (TULSA) "DT" and FORD (WILLOW RUN) "FO"

MODEL & BLOCK-NO.	ARMAMENT			BOMBS			FUEL U.S. GAL. (MAXIMUM)
	NO GUNS & CALIBER	RDS. PER. GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-24H-DT (-1 thru -15) (DOUGLAS)	2) 2) 2) 2)	.50 600 250 400 508 600	NOSE TURRET SIDE WAIST..FL. UPPER TURRET LOW.BALL TRR. TAIL TURRET	4-2000 8-1600 8-1000 12- 500 12- 250 20- 100	NONE	12800	3614
B-24H-FO (-1 thru -15) (FORD)	A S	A B O V E		A S	A B O V E		AS ABOVE
B-24H-DT & FO (-20 thru -30)	2) 2) 2) 2)	.50 600 500 <sup>b</sup> 400 508 600	NOSE TURRET S.WAIST-K6 MT. UPPER TURRET LOW.BALL TRR. TAIL TURRET	A S	A B O V E		AS ABOVE
B-24J-FO (-1 thru -20) B-24J-DT (-1 thru -10)	A	S	A	B	O	V	E

NOTES: a B-10 SHACKLES FOR 8-1600 LB. BOMBS STARTS ON 2101st.FORD KNOCK-DOWN SET.  
b B-24H-20 HAS PROVISIONS FOR ONLY 250 RDS/GUN.

NORTH AMERICAN (DALLAS) "NT"

MODEL & BLOCK-NO.	ARMAMENT			BOMBS			FUEL U.S. GAL. (MAXIMUM)
	NO GUNS & CALIBER	RDS. PER. GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-24G-NT (-1 thru -15)	3) 2) 2) 2) 2)	.50 230 TOT. 250 400 508 600	NOSE.....FLEX. SIDE WAIST..FL. UPPER TURRET LOW.BALL TRR. TAIL TURRET	4-2000 8-1000 12- 500 12- 250 20- 100	NONE	8000	3614
B-24G-NT (-1 thru -5)	2) 2) 2) 2)	.50 600 250 400 508 600	NOSE TURRET SIDE WAIST..FL. UPPER TURRET LOW.BALL TRR. TAIL TURRET	A S	A B O V E		AS ABOVE
B-24G-NT (-10 thru -15)	A S	A B O V E				12800	AS ABOVE
B-24J-NT (-1 thru -10)	A	S	A	B	O	V	E

NOTES: a LOWER BALL TURRET ON 5th. & SUBSEQUENT; NO TUNNEL GUN ON 1st.4. ARTICLES.

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE	WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.			RADIO	REMARKS & REFERENCE	
	ENGINE MFR. MODEL	B.H.P./ALT.				TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE OR STATION	EXTERNAL NO. & SIZE OR CAPACITY	MAX. LOAD LB.			TYPE
B-24D (WITH BOMB BAY TANKS)	PRATT-WHITNEY R-1830-43 TURBO HAMILTON STD. 11'7" DIA. - 3 BL. F.P.E. HYDROMATIC	T 1200/31 M 1200/26500 C 1100/27000	S 110'0" L 66'4" H 18'0" T 25'8" W 104'6 sq. ft.	B 35000 C 56000 A 56000 W 67800	10	MAIN - WINGS BOMB BAY	12-2364 2x 400 3164 TOT.	3) 2) 2) 1) 2)	100 250 400 100 600	NOSE - FLEX. SIDE WAIST-FL. UPPER TURRET TUNNEL - FLEX. TAIL TURRET	4-2000 8-1600 8-1000 12- 500 12- 250 20- 100	NONE	12800	SEE NOTE "A"	TECHNICAL ORDER 01-52C-1. (25 DEC. 1944, REV.)	
B-24D (WITH WING TIP TANKS)	AS ABOVE EXCEPT R-1830-65 ENGINE ON B-24D-20-CP & B-24D-135-00 TERSU -170-00.	AS ABOVE	AS ABOVE	B 37000 C 56000 A 56000 W 71400B	10	MAIN - WINGS WING TIPS BOMB BAY	12-2364 2x 225 2x 400 3614 TOT.	3) 2) 2) 2) 2)	100 250 400 508 600	NOSE - FLEX. SIDE WAIST-FL. UPPER TURRET LOW BALL TURRET TAIL TURRET	A S	A B O V E	AS ABOVE	A S A B O V E		
B-24G,H&J	PRATT-WHITNEY R-1830-65* TURBO HAMILTON STD. 11'7" DIA. - 3 BL. F.P.E. HYDROMATIC	AS ABOVE SEE "b"	S 110'0" L 67'2" H 18'0" T 25'8" W 104'6 sq. ft.	B 38000 C 56000 A 56000 W 71400B	10	A S A B O V E	A S A B O V E	2) 2) 2) 2) 2)	600 250 400 508 600	NOSE TURRET SIDE WAIST-FL. UPPER TURRET LOW BALL TURRET TAIL TURRET	A S	A B O V E	AS ABOVE	SEE "b"	TECHNICAL ORDER 01-52B-1 (30 NOV. 1944) a ENGINE IS R-1830-43 ON B-24G & G-1-RT; B-24H-1 & (152)B-5-CP; B-24J-1 & -5-PO; ALL B-24 BY DT. b LATEST AIRCRAFT HAVE NEW TURBO SUPERCHARGER TYPE (B-24) GIVING CRIT. ALTITUDE SAME AS SHOWN FOR B-24L & M. c FEW EXTERNAL BOMB BAYES BEING INSTALLED AT MED. CENTERS.	
B-24L&M	PRATT-WHITNEY R-1830-65 TURBO HAMILTON STD. 11'7" DIA. - 3 BL. F.P.E. HYDROMATIC	T 1200/31 M 1200/31800 C 1100/31500	AS ABOVE	B 37500 C 56000 A 56000 W 71400B	10	A S A B O V E	A S A B O V E	2) 2) 2) 2) 2)	600 500 400 508 600	NOSE TURRET SIDE WAIST-FL. UPPER TURRET LOW BALL TURRET See note "a"	A S	A B O V E	AS ABOVE	REVISION TO REFERENCE ABOVE NOW BEING PRINTED. a B-24L SERIES HAS HAND HELD FLEX. GUNS IN THE TAIL; B-24M SERIES HAS LIGHT WEIGHT TURRET IN TAIL.		

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND				HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE				
	GROSS WEIGHT LB.	TO CLEAR 50' FT.		LANDING SPEED MPH	GROUND-RUN		STD. ALT. FT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT LB.	BOMBS CARGO LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE						
		T.O. DIST. FT.	LAND. DIST. FT.		T.O. DIST. FT.	LAND. DIST. FT.		MPH	FT./MIN.	MPH	FT./MIN.				MIN.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.		AT 25000 FT.	RANGE MILES	ENDUR. HOURS	RANGE MILES
B-24D (WITH BOMB BAY TANKS)	40000 54000 59000 60000	- 1500 6200 6600	3300 4200 - -	90 105 - -	2800 3450 - - 4750	30000 25000 20000 15000 10000 5000	300 290 277 263 252	900 1000 1150 1200 1200	297 284 272 259 246	700 800 950 1000 #	30.2 22.0 15.4 9.7 4.2	59000 53500 58500	NONE NONE 5000	3164 2364 2364	1200 900 850	4.8 3.6 3.6	1350 1000 950	4.8 3.5 3.5	2400 1800 1750	10.9 8.1 8.0	2500 1900 1800	10.3 7.6 7.5	3200 2450 2300	18.0 13.7 13.0	
B-24D (WITH WING TIP TANKS)	40000 56000 59000 60000 62000 64000	- 5050 6200 6600 7550 8750	3300 4300 - - - -	90 105 - - - -	2800 3550 - - 4750 6250	30000 25000 20000 15000 10000 5000	300 290 277 263 254 244	900 1000 1150 1200 1200	297 284 272 259 246	700 800 950 1000 #	30.2 22.0 15.4 9.7 4.2	64000 61000 61500 60500	NONE NONE 3000 5000	3614 3164 2814 2364	1200 1050 850	4.8 4.1 3.6	1350 1200 950	4.8 4.1 3.5	2400 2050 1750	10.9 9.5 8.0	2500 2200 1800	10.4 9.2 7.5	3500* 3200 2750 2300	20.0* 18.0 15.4 13.0	*MAX. FERRY RANGE MAY BE RESTRICTED BY INSUFFICIENT OIL IF ENGINE IS NOT IN BETTER THAN AVERAGE CONDITION. OIL CONSUMPTION 5 QT. TO 3 GAL./HR. DEPENDS ON TIME SINCE OVERHAUL. **PERFORMANCE DATA ABOVE 65000 LB. NOT TEST AVAILABLE. SEE NOTE "B"
B-24G,H&J	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	30000 25000 20000 15000 10000 5000	300 290 277 263 254 244	900 1000 1150 1200 1200	297 284 272 259 246	700 800 950 1000 #	30.2 22.0 15.4 9.7 4.2	65000** 62000 62500 61500	NONE NONE 3000 5000	3614 3164 2814 2364	1150 1000 850	4.8 4.1 3.5	1350 1200 950	4.8 4.1 3.5	2200 1900 1600	10.7 9.5 7.9	2300 1950 1700	10.2 8.8 7.3	3300* 2900 2500 2100	18.2* 16.4 14.0 11.7	
B-24L&M	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	30000 25000 20000 15000 10000 5000	300 290 277 263 254 244	900 1000 1150 1200 1200	297 284 272 259 246	700 800 950 1000 #	30.2 22.0 15.4 9.7 4.2	64500 61500 62000 61000	NONE NONE 3000 5000	3614 3164 2814 2364	A S	A B O V E	A S	A B O V E	A S	A B O V E	A S	A B O V E	AS ABOVE		

NOTES: (A)

24 VOLT RADIO SYSTEM  
SCR-211 FREQUENCY METER  
SCR-522 COMMAND SET  
SCR-2699 RADIO COMPASS  
SCR-274A COMMAND SET  
SCR-287A LIAISON SET  
SCR-695 IFF (or SCR-995)  
SCR-578 EMERGENCY TRANSMITTER  
RC - 32 FILTER EQUIPMENT (or RC-198)  
RC - 36 INTERPHONE AMPLIFIER  
RC - 43B MARKER BEACON  
RC - 103 BLIND LANDING (Provisions only)  
AN/ARR-1 REVERTER (Installed in some models)

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK.  
\* MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY.  
(B) THERATEX REPORTS INDICATE LOADINGS IN EXCESS OF 65000 LB. ARE BEING USED. IT IS ABSOLUTELY ESSENTIAL THAT WING FUEL & OIL TANKS ARE FULL AT THESE WEIGHTS & THAT MANEUVERS BE KEPT TO A MINIMUM.



**B-24**  
"LIBERATOR"

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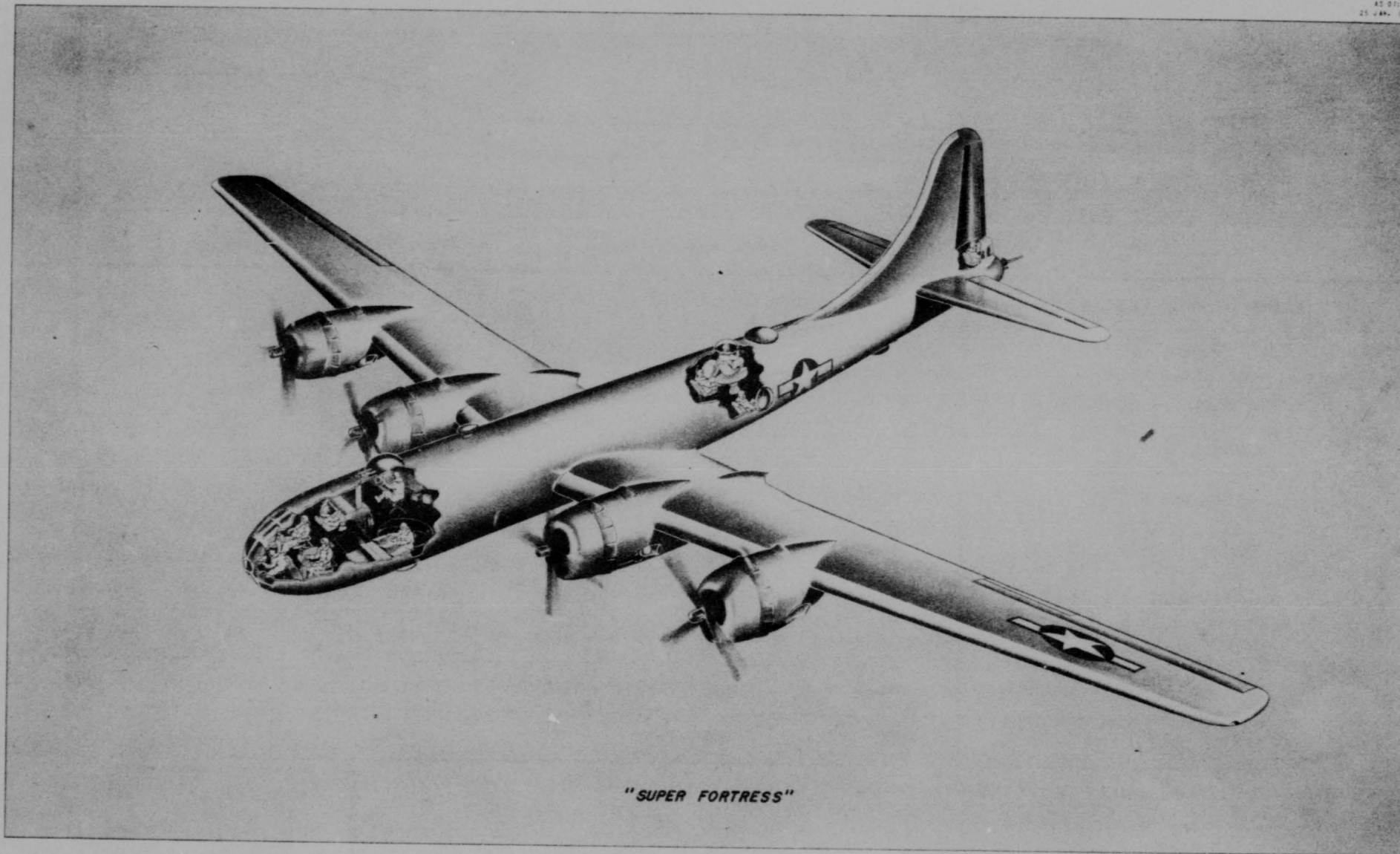
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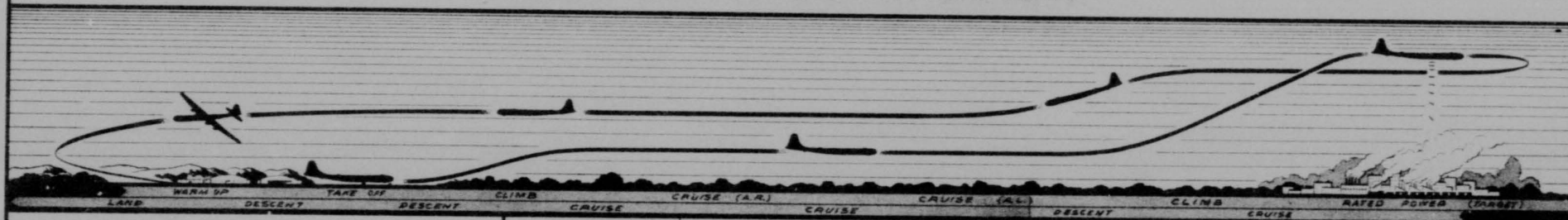


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**SAMPLE B-29 MISSION**

	DENSITY ALTITUDE	COWL FLAP	INDICATED AIR SPEED	FUEL USED	TIME IN FLIGHT	AIR MILES
WARM UP AND TAKE OFF	0 TO 100	WIDE OPEN TO 7.5°	0-180	160	0	0
CLIMB	100 TO 5000	9°	195	330	0.2	38
CRUISE (A.R.)	5000	1.7°	202	1330	2.4	500
CRUISE (A.L.)	5000	1.7°	198	2500	5.5	1172
CLIMB	5000 TO 30000	9°	195	3530	6.5	1463
RATED POWER (TARGET AREA)	30000	7°	206	3810	6.8	1563
CRUISE	30000	7°	185	4290	7.5	1780
CRUISE DESCENT	30000 TO 15000	3.5°	186	4970	9.5	2305
CRUISE	15000	3.5°	186	5600	11.4	2755
DESCENT AND LAND	15000 TO 0	1.7° TO WIDE OPEN	184	6142	13.6	3132

## NOTE

9. THE ABOVE DATA IS BASED ON STANDARD TEMPERATURE. THE B-29 IS GREATLY AFFECTED BY TEMPERATURE CHANGES AND A VARIATION IN PERFORMANCE OF AS MUCH AS 20% MAY BE EXPECTED UNDER CERTAIN CONDITIONS OF WIND AND TEMPERATURE. FOR EXAMPLE, A 1°C CHANGE IN TEMPERATURE HAS APPROXIMATELY THE SAME EFFECT ON SERVICE CEILING AS 1000 LB. IN WEIGHT.

T.O. GROSS WT.—135000 LB.  
FUEL—8923 GAL.  
BOMBS—10000 LB.  
RADIUS OF ACTION 1550 MI  
(WITH 781 GAL. RESERVE)

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE	WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE		
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT.	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA		B-BASIC C-COMBAT W-WEIGHT	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	TYPE	
			T-TAKE-OFF M-MILITARY C-CONTINUOUS									NO. & SIZE OR STATION	NO. & SIZE OR CAPACITY			
B-29-1 to -30 (84)	4	WRIGHT R-3350-23 -23A, -11, -57, -59, TURBO HAMILTON STD. 16"7" DIA. - LBL. P.F. HYDROMATIC	T 2200/S L W 2200/25000* M 2300/-(C) C 2000/25000	S 141'3" L 99' H 29'7" T 31'6" W 173'9 1/2"	B 74500 C 120000 W 120000 M 135000B	10	OUTRD.-WINGS IND.-WINGS BOMB BAY	11-2735 8-2873 4x 640	1-2000 2) 2) 2) 2)	100 1000 1000 1000 1000	TAIL-M2, TYPE B UPPER FUSE TRR. UPPER REAR TRR. LOWER FUSE TRR. LOWER REAR TRR. TAIL POWER MT.	4-4000 8-2000 12-1600 12-1000 40-500	NONE	20000	SEE NOTE (A)	TECHNICAL ORDER 01-208J-1. (15 SEPT. 1944) * WITHOUT RAM. OUTBOARD TREAD-31'6"; INBOARD TREAD-25'5"
B-29-25 to -80 (84)	4	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	10	OUTRD.-WINGS IND.-WINGS CENTER-WINGS BOMB BAY	11-2735 8-2873 4-1315 4x 640	1-2000 2) 2) 2) 2)	100 875 1000 1000 1000	UPPER FUSE TRR. UPPER REAR TRR. LOWER FUSE TRR. LOWER REAR TRR. TAIL POWER MT.	A S	A B O V E	E	(A) LAST (75) B-29-10-SW & SUBSEQUENT (SW) MODELS & ALL B-29-MO MODELS HAVE 4x.50 CAL. GUNS; OTHERS AS ABOVE. (B) LAST (20) B-29-25-BA; LAST (19) B-29-20-MO; B-29-50-SW & SUBSEQUENT MODELS HAVE 20MM. CANNON DELETED.	
B-29-1 to -30 (84)	4	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	10	OUTRD.-WINGS IND.-WINGS CENTER-WINGS BOMB BAY	11-2735 8-2873 3-1120 4x 640	1-2000 2) 2) 2) 2)	100 1000 1000 1000 1000	UPPER FUSE TRR. UPPER REAR TRR. LOWER FUSE TRR. LOWER REAR TRR. TAIL POWER MT.	A S	A B O V E	E	TECHNICAL ORDER 01-208J-1. (15 SEPT. 1944) (B) LAST (5) B-29-10-SW & SUBSEQUENT MODELS HAVE 20MM. CANNON DELETED.	
B-29-5 to -45 (84)	4	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	10	OUTRD.-WINGS IND.-WINGS CENTER-WINGS BOMB BAY	11-2735 8-2873 3-1120 4x 640	1-2000 2) 2) 2) 2)	100 1000 1000 1000 1000	UPPER FUSE TRR. UPPER REAR TRR. LOWER FUSE TRR. LOWER REAR TRR. TAIL POWER MT.	A S	A B O V E	E	TECHNICAL ORDER 01-208J-1. (15 SEPT. 1944) (B) LAST (5) B-29-10-SW & SUBSEQUENT MODELS HAVE 20MM. CANNON DELETED.	
B-29-25 to -80 (84)	4	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	10	OUTRD.-WINGS IND.-WINGS CENTER-WINGS BOMB BAY	11-2735 8-2873 4-1315 4x 640	1-2000 2) 2) 2) 2)	100 875 1000 1000 1000	UPPER FUSE TRR. UPPER REAR TRR. LOWER FUSE TRR. LOWER REAR TRR. TAIL POWER MT.	A S	A B O V E	E	(A) LAST (75) B-29-10-SW & SUBSEQUENT (SW) MODELS & ALL B-29-MO MODELS HAVE 4x.50 CAL. GUNS; OTHERS AS ABOVE. (B) LAST (20) B-29-25-BA; LAST (19) B-29-20-MO; B-29-50-SW & SUBSEQUENT MODELS HAVE 20MM. CANNON DELETED.	
B-29-1 to -30 (84)	4	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	10	OUTRD.-WINGS IND.-WINGS CENTER-WINGS BOMB BAY	11-2735 8-2873 3-1120 4x 640	1-2000 2) 2) 2) 2)	100 1000 1000 1000 1000	UPPER FUSE TRR. UPPER REAR TRR. LOWER FUSE TRR. LOWER REAR TRR. TAIL POWER MT.	A S	A B O V E	E	TECHNICAL ORDER 01-208J-1. (15 SEPT. 1944) (B) LAST (5) B-29-10-SW & SUBSEQUENT MODELS HAVE 20MM. CANNON DELETED.	

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND				HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT								RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE								REMARKS							
	GROSS WEIGHT	TO CLEAR 50'		LANDING SPEED	GROUND-RUN		STD. ALT.	WAR EMERG.		MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT	BOMBS	TOTAL FUEL	MAX. CONTINUOUS POWER					MAX. CRUISE POWER				LONG RANGE		
		T.O. DIST.	LAND. DIST.		T.O. DIST.	LAND. DIST.		HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB				TIME TO CLIMB	RANGE	ENDUR.	RANGE		ENDUR.	RANGE	ENDUR.	RANGE		ENDUR.	RANGE
B-29-1 to -30 (84)	80000	-	-	-	-	-	30000	312	520	324	324	150	74.0	134000	NONE	8168	-	-	-	-	-	-	-	-	4250	19.1	(B) MAX. CRUISE POWER MUST BE EXCEEDED BY USING AUTO RICH UNTIL AIRCRAFT WEIGHT DECREASES TO APPROX. 125000 LB.	
B-29-1-BA	100000	4950	-	105	-	3200	25000	324	520	324	324	300	52.0	135000	8000	6858	1900	6.5	2000	6.6	3150 <sup>b</sup>	12.8	-	-	3400	15.3		
B-29-1-BB	110000	5700	-	115	3100	-	20000	333	575	328	311	425	34.0	120000	4000	5608	1550	5.2	1650	5.2	2700	10.9	-	-	3000	14.0		
B-29-1-BB	120000	7150	-	120	4900	-	15000	317	570	312	300	26.0	128000	12000	5608	1550	5.2	1600	5.1	2600 <sup>b</sup>	10.7	-	-	2700	12.5			
B-29-25 to -80 (84)	135000	9900	-	-	5700	-	5000	324	520	324	324	276	8.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B-29-5 to -40 (84)		A S	A B O V E					A S	A B O V E					134000	NONE	8203	-	-	-	-	-	-	-	-	4200	19.2	AS ABOVE	
B-29-1 to -30 (84)		A S	A B O V E					A S	A B O V E					120000	4000	6923	1900	6.5	2000	6.5	3300 <sup>b</sup>	13.4	-	-	3500	16.3		
B-29-1 to -30 (84)		A S	A B O V E					A S	A B O V E					135000	10000	6923	1900	6.5	1900	6.5	3050 <sup>b</sup>	12.6	-	-	3350	14.9		
B-29-5 to -45 (84)		A S	A B O V E					A S	A B O V E					135000	NONE	8008	-	-	-	-	-	-	-	-	4050	18.6	AS ABOVE	
B-29-5 to -45 (84)		A S	A B O V E					A S	A B O V E					128000	4000	6728	1900	6.4	1950	6.3	3200	13.1	-	-	3400	15.7		
B-29-5 to -45 (84)		A S	A B O V E					A S	A B O V E					134000	10000	6728	1850	6.3	1950	6.3	3000	12.2	-	-	3250	14.7		

## NOTES:

(A) AN/APC-8  
SCR-219G  
RC-43/193  
RC-123  
AN/APN-5  
RC-36  
SCR-695  
SCR-576  
SCR-718  
AN/APQ-13  
RAVE  
AN/APA-1  
AN/APN-1  
PROVISIONS FOR:  
AN/APN-9  
SCR-522

AND FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK.

(B) HIGHER LOADINGS ARE STRUCTURALLY POSSIBLE BUT ARE IMPRACTICAL BECAUSE POWER AVAILABLE WOULD BE INSUFFICIENT FOR TACTICAL OPERATION.

(C) WAR EMERGENCY POWER APPLICABLE ONLY TO ENGINES WITH SUITABLE PROPELLERS AND GOVERNORS.

MANUFACTURED BY MARTIN (Omaha) "MO"; BOEING (Wichita) "BW"; BOEING (Renton) "B" &amp; BELL (Atlanta) "BA"

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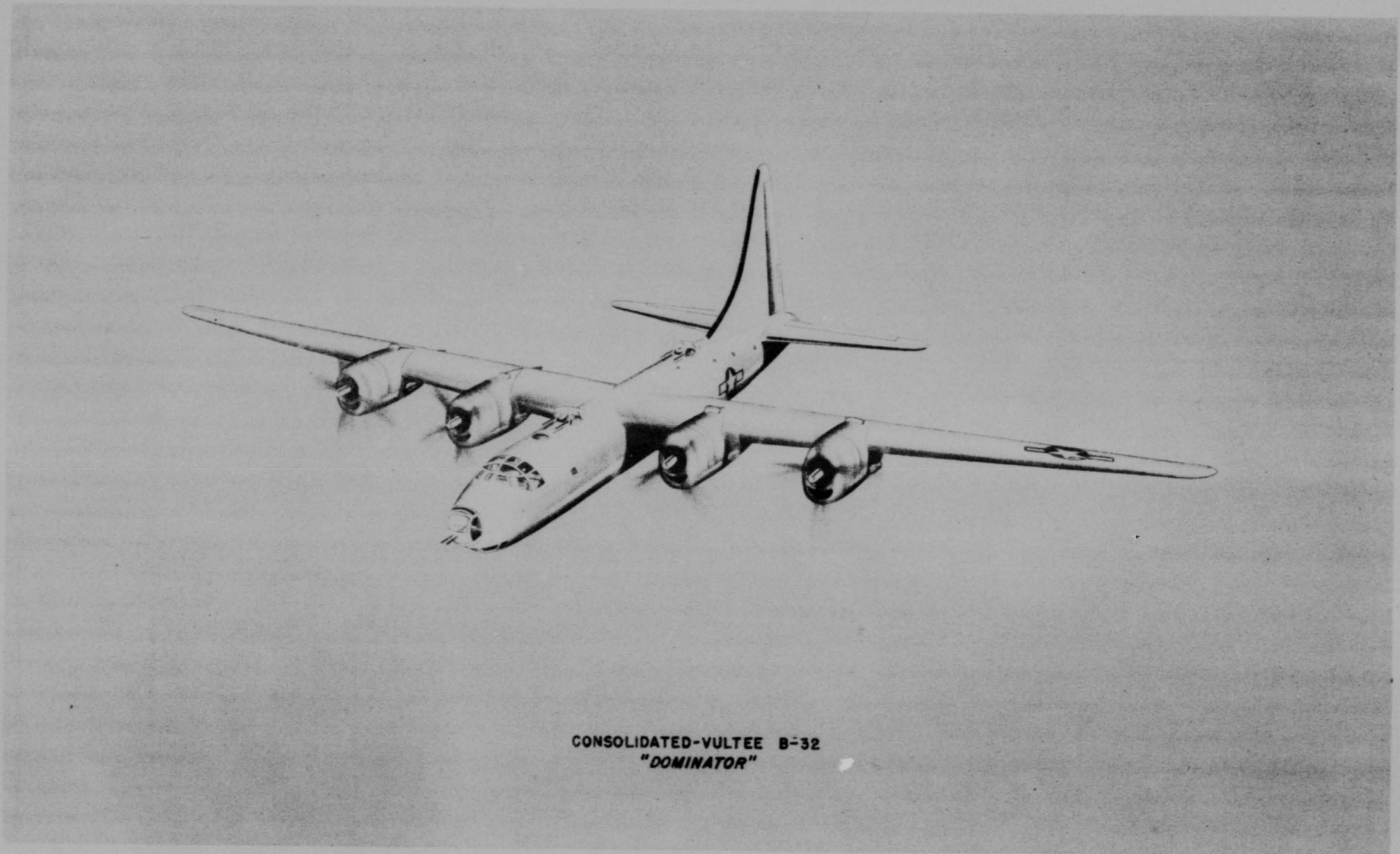
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"SUPER FORTRESS"

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CONSOLIDATED-VULTEE B-32  
"DOMINATOR"

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE	WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE			
	NUMBER	ENGINE MFG. MODEL	B.H.P./ALT.	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA		B-BASIC C-COMBAT A-RECOIL W-WAR MAX.	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL			MAX. LOAD LB.	TYPE (See r)
		SUPERCHARGER PROP. MFG. TYPE	T-TAKE-OFF M-MILITARY C-CONTINUOUS									NO. & SIZE STATION	NO. & SIZE CAPACITY				
B-32-CF	4	WRIGHT R-3350-23 TURBO CURTIS 16" DIA. - 4 BL. CONST. SPD. - 2100 R.P.M.	T 2000/3 L M 2200/34000 C 2000/32500	S 155' 0" L 82' 11" H 33' 0" T 28' 0" W 1122 94'	B 60000 C 100000 A-100000 W 123250	INER. (INNER CENTER) 2 x 550 OUTER 2 x 577 DUAL (INNER CENTER) 2 x 330 (OUTER) 2 x 310	2 2 2 2	365* 400 400 590 1300	BOGEY TURRET FRONT TOP TWR. REAR TOP TWR. LOW BALL TWR. TAIL TURRET	4-4000 6-2000 6-1500 12-1000 40-500	NONE	20000	SR-27LN, 211,269, 217,522, 675 & 718, 80-50, 143, 133 & 132.	TECHNICAL ORDER 01-524-1. (20 JULY 1944) A SPACE PROVISIONS FOR 600 RDS/GUN: NORMAL RDS. LISTED. B BOMB RAY TAKEN IN DESIGN STAGE; NO DETAILS AVAILABLE. C RADIO LISTED FOR EXP. PLANS & FIRST FEW PROD. ARTICLES.			

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND				HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE					
	GROSS WEIGHT	TO CLEAR 50'		LANDING SPEED	GROUND-RUN		WEIGHT	STD. ALT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT	BOMBS CARGO	TOTAL FUEL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE						
		T.O. DIST.	LAND. DIST.		T.O. DIST.	LAND. DIST.			HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB				TIME TO CLIMB	RANGE	ENDUR.	RANGE	ENDUR.		RANGE	ENDUR.	RANGE	ENDUR.	RANGE
B-32-CF	70000 80000 90000 100000 110000 120000	- 3650 4500 5500 6700 8000	- 1100 1450 1900 2400 3150	68 75 82 90 98	- 3000 3600 4200 4800 5300	2200 2600 2900 3150 -	100000 -	30000 25000 20000 15000 10000 5000	350 366 350 351 318 320	550 525 550 520 518 520	360 351 331 320 307 282	500 600 750 850 950 1100	100000 106500 119000	2000 8000 20000	5150 5150 5150	1500 1150 1100	3.0 3.0 5.8	1700 1650 1950	5.1 5.0 5.0	2700 2650 2700	10.4 10.2 9.6	2950 2850 2600	16.0 10.0 9.6	3750 3500 2900	18.7 16.5 13.0	

NOTES:

RED FIGURES ARE PRELIMINARY, SUBJECT TO REVISION AFTER FLIGHT TEST.  
\* MILITARY POWER AVAILABLE FOR 5 MINUTES.



**B-32**  
"DOMINATOR"

MANUFACTURED BY CONSOLIDATED-VULTEE (Ft. Worth) "CF"

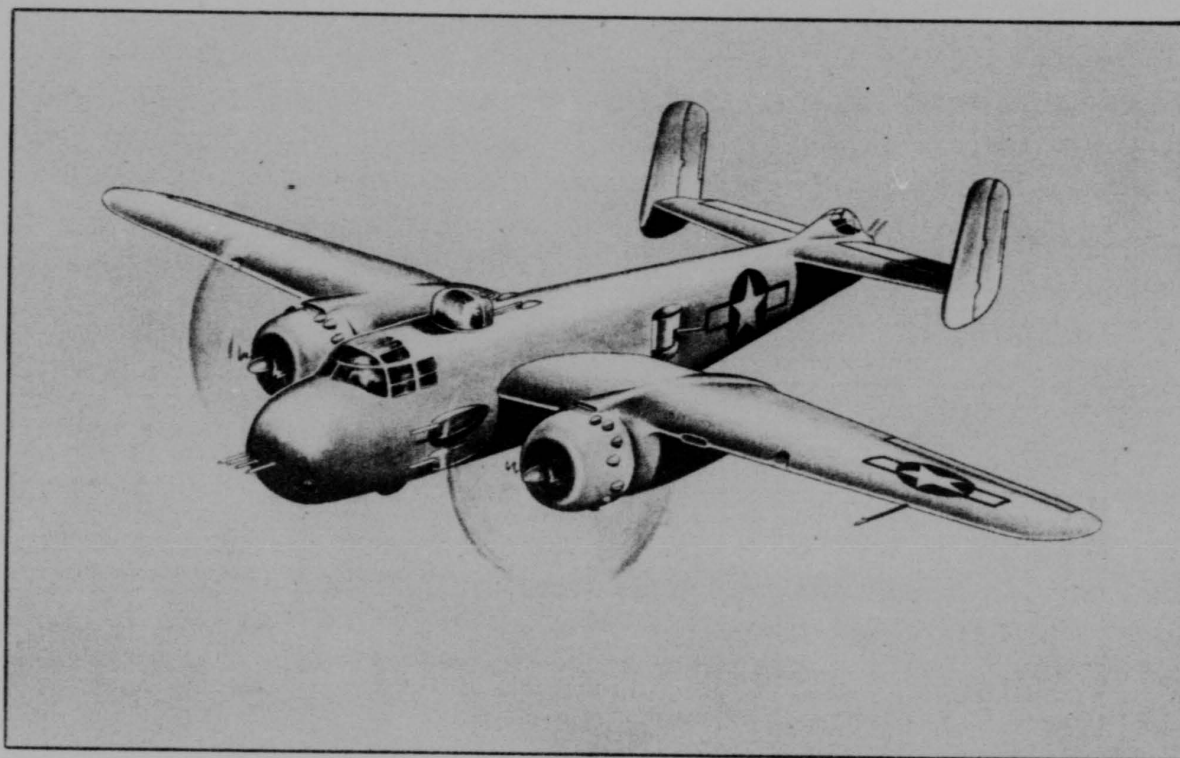
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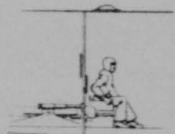
# B-25 MITCHELL BOMBER



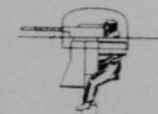
TAIL GUNNER  
B-25H&J



UPPER TURRET (REAR)  
B-25C, D, & G



CANNONEER  
B-25G&H



UPPER TURRET (FRONT)  
B-25H&J

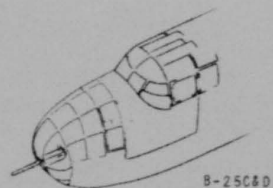


BOTTOM TURRET  
B-25C, D, & G

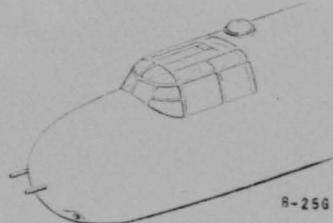


WAIST GUNNER  
B-25H&J

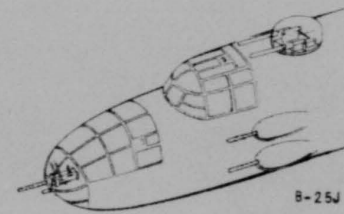
B-25H



B-25C&D



B-25G



B-25J

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## TACTICAL PLANNING CHARACTERISTICS &amp; PERFORMANCE CHART

PAGE 17  
AS OF:  
25 JAN. 1945

MODEL & BLOCK NO.	ENGINE & PROP.		SIZE	WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.			RADIO	REMARKS & REFERENCE
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP. MFR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA		B-BASIC C-COMBAT W-WAR MAIL	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & PER CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE OR STATION	EXTERNAL NO. & SIZE OR CAPACITY	MAX. LOAD LB.	
B-25C & D (NA & NC)	2	WEIGHT R-2600-13 2 SPD. SUPERCH. HAMILTON STD. 12"7"DIA.-3 BL. P.F.P. HYDROMATIC	T 1700/ S L M 1700/ 4500 C 29500	S 67'6" L 52'8" H 15'9" T 19'4" W 61.0 sq. ft.	B 20500 C 29500 W 35000B	5	MAIN - WINGS MAIN - WINGS AUX. - WINGS SIDE WAIST BOMB BAY SEE (f)	2 x 154 2 x 151 6 - 304 1 x 125 1 x 585 1295 TOT.	1-30 2-50 2-50	600 400 350	NOSE - FLEX. UPPER TURRET LOWER TURRET	1-2000 2-1000 6- 500 8- 250 12- 100	NONE	5000	SEE (A) TECHNICAL ORDER 01-600B-1. (1 MAY 1943) (f) FUEL CAPACITY OF LAST 102 (B-25C's) SAME AS BELOW. (g) LENGTH OF B-25C AIRPLANES IS 53 FT.
B-25C-NA -1 TO -25 INCL. B-25D-NC -1 TO -35 INCL.	2	AS ABOVE	AS ABOVE	AS ABOVE	B 22000 C 33500 W 35000B	5	MAIN - WINGS MAIN - WINGS AUX. - WINGS SIDE WAIST BOMB BAY SEE (f)	2 x 154 2 x 151 6 - 304 1 x 125 1 x 585 1295 TOT.	1) 1) 2) 2) (a)	300 300 400 350	NOSE - FLEX. NOSE - FIXED UPPER TURRET LOWER TURRET	1-2000 2-1600 3-1000 6- 500 8- 250 12- 100	1-2000 T 6- 325 8- 250 8- 100 SEE (C)	2-1600 *6- 250 5200	AS ABOVE TECHNICAL ORDER 01-600B-1. (1 MAY 1943) (a) B-25C-1 & D-1 ARMAMENT SAME AS BELOW; LOWER TURRET ON SOME AIRPLANES ONLY. (b) ARMOR PIERCING BOMBS ON SOME MODELS ONLY. (c) B-25C-25 & D-20 THRU -35 FUEL CAPACITY SAME AS BELOW; 1x125 GAL. SIDE WAIST TANK ON B-25D SERIES ONLY.
B-25G-NA -1 TO -10 INCL.	2	AS ABOVE	AS ABOVE	AS ABOVE	B 21700 C 33500 W 35000B	4	MAIN - WINGS MAIN - WINGS AUX. - WINGS SIDE WAIST BOMB BAY (f)	2 x 154 2 x 151 6 - 304 1 x 125 2 x 585 1295 TOT.	1-75MM 2) 2) 2) 2)	21 400 400 350	NOSE CANNON M. NOSE - FIXED UPPER TURRET LOWER TURRET	A S A S O V E	A S A S O V E	SEE (C) TECHNICAL ORDER 01-600C-1. (REV. 10 DEC. 1943) (a) LOWER TURRET ON SOME MODELS ONLY. (f) BOMB BAY FUEL CONSISTS OF 1x215 GAL. SELF SEALING REMOVABLE TANK & 1x335 GAL. METAL DROPPABLE TANK; 1x85 GAL. METAL TANK IS INTERCHANGEABLE.	
B-25H-NA -1 TO -10 INCL.	2	WEIGHT R-2600-13 or -29 2 SPD. SUPERCH. HAMILTON STD. 12"7"DIA.-3 BL. P.F.P. HYDROMATIC	AS ABOVE	AS ABOVE	B 22000 C 33500 W 35000B	5	MAIN - WINGS MAIN - WINGS AUX. - WINGS SIDE WAIST BOMB BAY SEE (f) or	2 x 154 2 x 151 6 - 304 2 x 585 1 x 585 1295 TOT.	1-75MM 4) 4) 4) 2)	21 400 400 200 400 600	NOSE - TYPE 113E NOSE - FIXED *PORE - PACKAGE SIDE WAIST-FL. UPPER TURRET TAIL POWER MT.	21-2000 2-1600 3-1000 6- 500 8- 250 12- 100	1-2000 T SEE (C)	3200 SCR-27LN SCR-27G SCR-287 SCR-522 SCR-578 SCR-695 RD-36A RD-36B	TECHNICAL ORDER 01-600D-1. (10 DEC. 1944) (a) SOME B-25H-1's CARRY ONLY 2 WOSE PACKAGE GUNS. (b) THE 2000 LB. BOMB STATION DELETED ON 131st AIRPLANE OF BLOCK (-5) AND SUBSEQUENT. (f) BOMB BAY FUEL SAME AS LISTED FOR B-25G's ABOVE.
B-25J-NC -1 TO -30 INCL.	2	AS ABOVE	AS ABOVE	AS ABOVE	B 21100 C 33500 W 35000B	6	AS ABOVE	AS ABOVE	1) 2) 4) 2) 2) 2)	300 300 400 250 400 600	NOSE - FLEX. NOSE - FIXED FORE - PACKAGE SIDE WAIST-FL. UPPER TURRET TAIL POWER MT.	AS ABOVE EXCEPT THAT 2000 LB. BOMB STATION IS DELETED ON 151st B-25J-1 AND SUBSEQUENT MODELS.	SCR-27LN SCR-27G SCR-287 SCR-522 SCR-578 SCR-695 RD-36A RD-36B	TECHNICAL ORDER 01-600E-1. (10 OCT. 1944) *SCR-269G IS REPLACED BY AN/ARN-7 ON B-25J-15 & SUBSQ.	

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE						
	GROSS WEIGHT LB.	TO CLEAR 50'		LANDING SPEED MPH	GROUND-RUN		WEIGHT LB.	STD. ALT. FT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT LB.	BOMBS LB.	TOTAL FUEL U.S. GAL.	AT 10000 FT.		AT 25000 FT.		AT 10000 FT.		AT 25000 FT.		AT 10000 FT.					
		T.O. DIST. FT.	LAND. DIST. FT.		T.O. DIST. FT.	LAND. DIST. FT.			HIGH SPEED MPH	RATE OF CLIMB FT/MIN.	HIGH SPEED MPH	RATE OF CLIMB FT/MIN.				TIME TO CLIMB MIN.	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS		RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS
		B-25C & D (NA & NC)	25000		-	3300			99	-	1550	20000				267	-	262	175	30.0	30000	NONE		1255	950	3.5	-	-	1475
	30000	3800	3650	108	2950	1800	15000	286	-	283	590	18.5																	
	32000	4700	3900	112	3700	2000	10000	284	900	279	-	9.5																	
	34000	5500	-	-	4400	-	5000	283	1250	276	-	4.2																	
	34000	5900	-	-	4750	-	S L	265	1150	274	-	4.2																	
	35200	6000	-	-	4850	-	S L	264	1000	257	-	0.0																	
B-25C-NA -1 TO -25 INCL. B-25D-NC -1 TO -35 INCL.	32000	4700	3900	112	3700	2000	20000	265	-	260	-	-	34000	NONE	1564	-	-	-	-	-	-	-	-	-	-	-	* STRIP TO 35000 LB. LIMITING WEIGHT.		
	33200	5200	4000	116	4100	2050	15000	284	-	280	590	18.5	34000	NONE	1559	-	-	-	-	-	-	-	-	-	-	-			
	34000	5500	4100	116	4400	2100	10000	283	900	276	830	9.5	33200	3200	974	700	2.6	-	-	1050	5.3	-	-	1300	7.0				
	34900	5900	-	-	4750	-	5000	282	1150	274	-	4.2	32200	2000 T	974	650	2.6	-	-	950	4.2	-	-	1390	7.0				
	35200	6000	-	-	4850	-	S L	264	1000	257	-	0.0	35000*	5200	974	600	2.6	-	-	875	4.1	-	-	1125	6.3				
B-25G-NA -1 TO -10 INCL.	32000	4700	3950	112	3700	1950	20000	-	-	-	-	-	34000	NONE	1649	-	-	-	-	-	-	-	-	-	-	* CAPACITY OF 1199 GAL. INCLUDES 1x215 GAL. SELF SEALING REMOVABLE TANK AVAILABLE WITH 2000 LB. OF BOMBS ONLY or 1x2000 LB. TORPEDO.			
	33700	5350	4050	116	4250	2050	15000	281	-	277	590	18.5	34000	NONE	1524	-	-	-	-	-	-	-	-	-	-	-			
	34000	5450	4100	116	4350	2100	10000	278	900	281	630	9.5	33700	2000	1189*	950	3.5	-	-	-	-	-	-	-	-	-			
	34900	5850	-	-	4700	-	5000	285	1150	278	-	4.2	33900	2000 T	1189*	925	3.6	-	-	-	-	-	-	-	-	-			
	35200	6000	-	-	4850	-	S L	266	1000	257	-	0.0	35000	5200	974	700	2.9	-	-	975	4.4	-	-	-	-	-			
B-25H-NA -1 TO -10 INCL.	32000	4700	3950	112	3700	1950	20000	248	-	260	230	31.7	35000**	NONE	1624	1200	-	-	-	-	-	-	-	-	-	* CAPACITY OF 1199 GAL. INCLUDES 1x215 GAL. SELF SEALING REMOVABLE TANK AVAILABLE WITH 2000 LB. OF BOMBS ONLY or 1x2000 LB. TORPEDO.			
	33200	5150	4000	116	4100	2000	15000	270	-	275	540	19.0	35000**	NONE	1524	1125	-	-	-	-	-	-	-	-	-	-			
	33700	5350	4050	116	4250	2050	10000	266	-	263	700	11.1	35000	2000	1189*	850	3.1	-	-	1500	6.3	-	-	1790	8.0				
	34000	5450	4100	116	4350	2100	5000	272	-	264	1050	5.0	35000**	2000 T	1189*	800	3.1	-	-	1160	6.1	-	-	1610	7.2				
	34800	5800	-	-	4650	-	S L	266	-	253	1110	0.0	35000	3200	974	665	2.6	-	-	1275	5.4	-	-	1445	6.3	** STRIP TO 35000 LB. LIMITING WEIGHT.			
B-25J-NC -1 TO -30 INCL.	32000	4700	3950	112	3700	1950	20000	-	-	-	-	-	34000	NONE	1624	-	-	-	-	-	-	-	-	-	-	* CAPACITY OF 1199 GAL. INCLUDES 1x215 GAL. SELF SEALING REMOVABLE TANK AVAILABLE WITH 2000 LB. OF BOMBS ONLY or 1x2000 LB. TORPEDO.			
	33700	5350	4050	116	4250	2050	15000	270	-	275	540	19.0	34000	NONE	1524	-	-	-	-	-	-	-	-	-	-	-			
	34000	5450	4100	116	4350	2100	10000	266	-	263	700	11.1	33600	2000	1189*	900	3.3	-	-	1575	6.6	-	-	1800	8.5				
	34800	5800	-	-	4650	-	5000	272	-	264	1050	5.0	34000	2000 T	1189*	850	3.4	-	-	1150	6.5	-	-	1575	6.5				
	35200	6000	-	-	4850	-	S L	266	-	253	1110	0.0	33100	3200	974	725	2.7	-	-	1275	5.4	-	-	1150	6.9				

## NOTES:

- (A) 24 VOLT RADIO SYSTEM  
SCR-211 FREQUENCY METER  
SCR-269G RADIO COMPASS  
SCR-274E COMMAND SET (or SCR-522)  
SCR-287A LIAISON SET  
SCR-535 SET (or SCR-595 or SCR-695)  
SCR-578 EMERGENCY TRANSMITTER  
RC - 32 FILTER EQUIPMENT (or RC-198)  
RC - 43B MARKER BRACON  
RC - 103 BLIND LANDING (Provisions only)  
RC - 196 CONTACTOR UNIT  
RC - 36 INTERPHONE AMPLIFIER

ALL FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK  
\* MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY.

(B) LIMITED TO 35000 LB. BY FLYING CHARACTERISTICS.

(C) TORPEDOES BEING USED IN LIMITED QUANTITIES ONLY.

(D) TIME TO CLIMB BASED ON MAX. CONTINUOUS POWER ONLY.



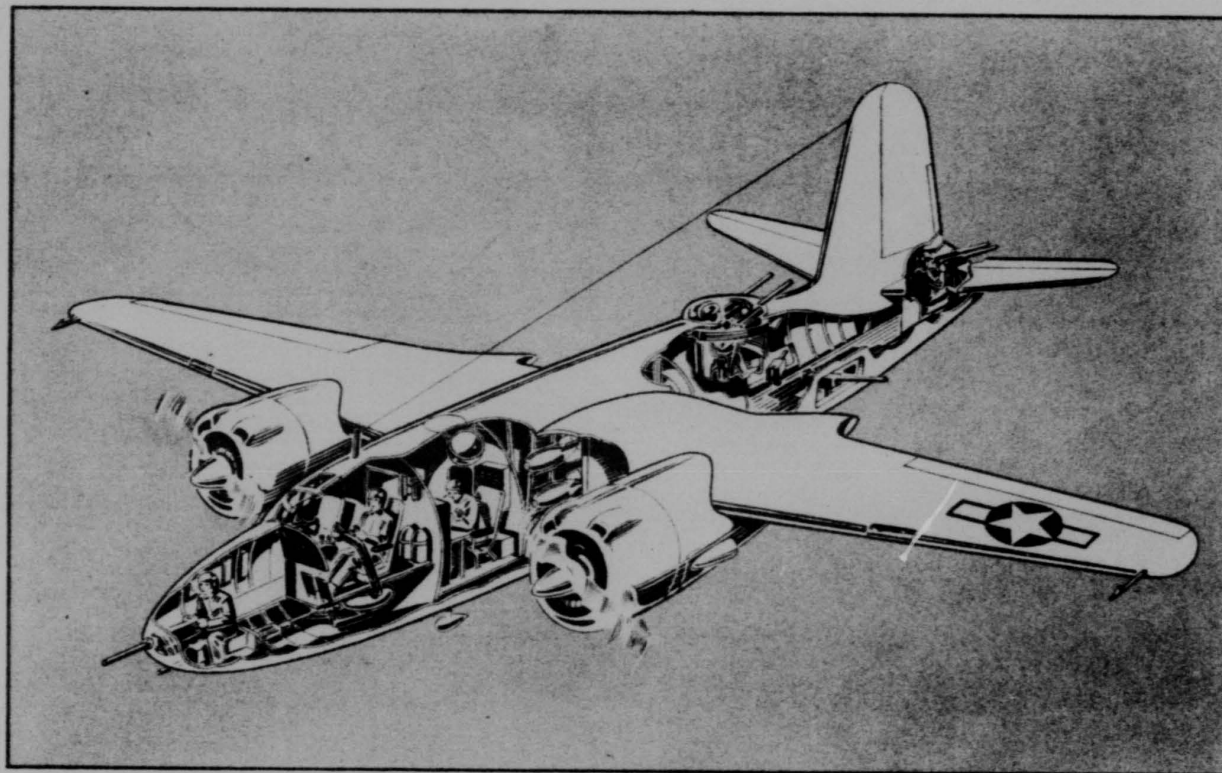
B-25  
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PAGE 18  
AS OF:  
25 JAN. 1945

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B-26 "MARAUDER"

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### TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

PAGE 13  
AS OF:  
25 JAN. 1945

MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-ARGO-PASS.		RADIO	REMARKS & REFERENCE
	ENGINE MFR. MODEL	B.H.P./ALT.	S-SPAN	B-BASIC			TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & PER GUN	RDS	LOCATION & TYPE	INTERNAL NO. & SIZE STATION	EXTERNAL NO. & SIZE OR CAPACITY		
B-26 B-MA B-2, 3 & 4	PRATT-WHITNEY R-2800-5e 2 SPD. SUPERCH. CURTISS 13'6" DIA. - 4 BL. F.F. ELECTRIC	1850/2700 1500/14000 1500/7800 1450/13000	5 65'0" L 58'3" H 19'10" T 22'0" W 602 SQ. FT.	B 23500 C 35000 A 36500 W 36500	6	MAIN - WINGS AUX. - WINGS BOMB BAY - (FORE)	2 x 360 2 x 121 2 x 250 1162 TOT	1-.30 1-.30 2-.50 2-.50 2-.50	600 600 1500 400 340	NOSE - FLEX. TURREL - FLEX. TAIL - FLEX. MT. UPPER TURRET SIDE WAIST-FL.	2-2000 2-1600 1-1000 4-500 16-250 30-100	1-2000 (TORPEDO) SEE (b) 5200 (b)	2-1600 1-2000T 5200 (b)	SEE (A)	TECHNICAL ORDER 01-352A-1. (5 MARCH 1943) * SIDE WAIST GUNS ADDED TO LAST 111 (+4) ONLY. * B-26B-MA HAS -5 ENGINE; B-26B-2-MA HAS -111 ENGINE & B-26B-3 & -4 HAS -13 ENGINE.
B-26 B-MA -10 TO -20 INCL B-26 C-MQ -5 TO -25 INCL	PRATT-WHITNEY R-2800-13 2 SPD. SUPERCH. CURTISS 13'6" DIA. - 4 BL. F.F. ELECTRIC	1920/3200 1490/11300 1550/7100 1360/11600	5 71'0" L 58'3" H 21'6" T 22'0" W 659 SQ. FT.	B 25300 C 37000 A 37500 W 38200(C)	6	MAIN - WINGS AUX. - WINGS BOMB BAY - (FORE & REAR)	2 x 360 2 x 121 4 x 250 1962 TOT	1) 1) 2) 2) 2)	200 210 250 250 600	NOSE - FLEX. SIDE WAIST-FL. U.FUS. - PACKAGE L.FUS. - PACKAGE UPPER TURRET TAIL-POWER MT.	A S A B O V E	A S A B O V E	AS ABOVE	TECHNICAL ORDER 01-352B-1. (25 DEC. 1943) * B-26B-10; -15 & C-5 HAVE FLEX. TAIL MOUNT INSTEAD OF POWER MOUNT. & RDS. GUN SAME AS B-26B-2-MA. * BASIC WEIGHT OF B-26B-15 IS 21,500 LB.	
B-26 B-MA -25 TO 55 INCL B-26 C-MQ -30 & -45 INCL	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	6	MAIN - WINGS AUX. - WINGS BOMB BAY - (FORE ONLY)	2 x 360 2 x 121 2 x 250 1162 TOT	A S A B O V E	SEE (a)	2-2000 2-1600 4-1000 8-500 80-250 820-100	1-2000 (TORPEDO) SEE (b) 5200 (b)	2-1600 1-2000T 5200 (b)	NOTE (A) plus RC-103 & SCR-522	REFERENCE AS ABOVE * FIXED NOSE GUN DELETED ON LATEST B-26B's and B-26C-45. * ALL MODELS EXCEPT 1st. 75 (B-26C-30) CARRY LESS BOMBS DUE TO DELETION OF 2 REAR BOMB BAYS. * RC-103 & SCR-522 ADDED TO LATER MODELS ONLY.	
B-26 F-MA -1-2 & -6 B-26 G-MA -1 TO -25	AS ABOVE	AS ABOVE	5 71'0" L 56'1" H 20'4" T 22'0" W 658 SQ. FT.	B 25500 C 37000 A 37500 W 38200(C)	6	MAIN - WINGS AUX. - WINGS BOMB BAY - (FORE ONLY)	2 x 360 2 x 121 2 x 250 1500 TOT	1) 2) 2) 2) 2)	200 250 275 225 400 900	NOSE - FLEX. SIDE WAIST-FL. U.FUS. - PACKAGE L.FUS. - PACKAGE UPPER TURRET TAIL-POWER MT.	A S A B O V E	NONE 1000	AS ABOVE	TECHNICAL ORDER 01-352C-1. (15 FEB. 1944) * B-26G DESIGNATION IS USED FOR AIRPLANES WITH AN FITTINGS; NO OTHER MAJOR CHANGES.	

COLUMN — 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

MODEL & BLOCK NO.	TAKE OFF & LANDING				HIGH SPEED & CLIMB						RANGE & ENDURANCE										REMARKS ON PERFORMANCE			
	HARD SURFACE - NO WIND				AT NORMAL COMBAT WEIGHT						STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE													
	GROSS WEIGHT LB.	TO CLEAR 50' TO DIST. FT.		LANDING SPEED MPH	GROUND RUN TO DIST. FT.		WEIGHT LB.	STD. ALT. FT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT LB.	BOMBS CAP. LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER AT 10000 FT.		MAX. CRUISE POWER AT 25000 FT.		LONG RANGE AT 10000 FT.				
T/O		LAND.	T/O		LAND.	HIGH SPEED			RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB	RANGE				ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.
B-26 B-MA B-2, 3 & 4	21000	-	2300	110	-	1600	20000	270	300	255	200	26.5	34000	NONE	1162	950	3.2	-	-	-	-	2000	9.9	
	28000	-	2900	120	-	2100	15000	298	750	254	600	14.0	35500	1500	1162	900	3.2	-	-	-	-	1950	9.7	
	32000	3250	3500	130	2350	2600	10000	291	1000	258	900	7.7	36000	2000T	1162	-	-	-	-	-	-	1900	9.5	
	35000	4000	-	-	2950	-	5000	294	1150	283	8	3.4	35000	4000	962	550	2.0	-	-	-	-	1850	9.5	
	36000	4300	-	-	3150	-	S L	281	1500	265	8	0.0	35000	4000	962	550	2.0	-	-	-	-	1850	6.3	
B-26 B-MA -10 TO -20 INCL B-26 C-MQ -5 TO -25 INCL	28000	2400	2200	135	1600	1050	20000	-	-	-	-	-	38200	NONE	1162	1125	5.2	-	-	2375	10.6	-	13.3	
	32000	3050	2100	136	2000	1200	15000	282	-	273	320	28.6	37800	NONE	1162	1000	3.8	-	-	1725	7.8	-	9.2	* MUST BE STRIPPED TO 35200 LB.
	35000	3900	-	-	2600	-	10000	278	-	271	680	13.2	38200	1500	1162	1000	3.8	-	-	1700	7.8	-	9.2	
	36000	4400	-	-	2850	-	5000	285	1000	269	8	4.1	36300	2000T	962	-	-	-	-	-	-	-	-	
	38200	6100	-	-	3640	-	S L	270	1500	250	8	0.0	38100	4000	962	650	2.5	-	-	1050	4.9	-	5.4	
B-26 B-MA -25 TO -55 INCL B-26 C-MQ -30 & -45 INCL	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	37000	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	37800	NONE	1162	1000	3.8	-	-	1725	7.8	-	9.2	
	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	37000	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	34100	3000	962	650	2.4	-	-	1125	4.9	-	6.5	
	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	37000	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	36300	2000T	962	-	-	-	-	-	-	-	-	
	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	37000	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	38100	4000	962	650	2.5	-	-	1050	4.9	-	5.4	
B-26 F-MA -1-2 & -6 B-26 G-MA -1 TO -25	28000	2300	2200	122	1500	1050	25000	-	-	-	-	-	36000	NONE	1500	1050	3.9	-	-	1775	8.0	-	9.6	* MUST BE STRIPPED TO 35200 LB.
	32000	2150	2100	122	1750	1200	20000	255	-	258	-	-	36200	NONE	1850	875	3.3	-	-	1500	6.5	-	8.1	
	35000	2650	2600	125	1845	1300	15000	274	-	274	350	31.6	36000	NONE	1850	875	3.3	-	-	1500	6.5	-	8.1	
	36000	2900	2550	127	2000	1350	10000	277	-	269	390	17.2	34200	NONE	1000	675	2.5	-	-	1175	5.1	-	6.6	
	38200	3600	-	-	2430	-	5000	285	-	259	630	8.1	38200	4000	1000	675	2.6	-	-	1100	5.1	-	5.7	
	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	S L	281	1000	242	8	0.0	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	

18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

NOTES: (A)

24 VOLT RADIO SYSTEM

SCR-211 FREQUENCY METER  
SCR-2690 RADIO COMPASS  
SCR-271M COMMAND SET  
SCR-287A LIAISON SET  
SCR-535 SET (or SCR-595 or SCR-695)  
SCR-578 EMERGENCY TRANSMITTER  
RC - 32 FILTER EQUIPMENT (or RC-198)  
RC - 36 INTERPHONE AMPLIFIER  
RC - 138 MARKER BEACON

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK

\* MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY.

(B) TORPEDOES BEING USED IN LIMITED QUANTITIES ONLY.

WITH MAXIMUM BOMB LOAD SHOWN TORPEDO MUST BE DROPPED FIRST.

(C) LIMITED TO 35200 LB. BY FLYING CHARACTERISTICS.



# B-26

"MARAUDER"

MANUFACTURED BY MARTIN (Baltimore) "MA" &amp; MARTIN (Omaha) "MO"

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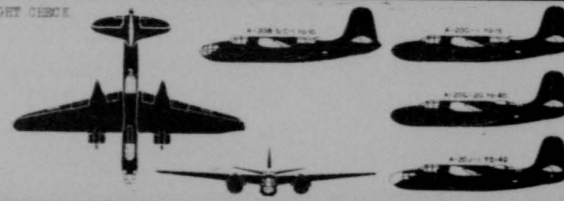
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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE	
	ENGINE MFR. MODEL	B.H.P./ALT.	S-SPAN	B-BASIC			TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE STATION	EXTERNAL NO. & SIZE CAPACITY			MAX. LOAD LB.
A-20B-DL	2	WRIGHT R-2600-11 2 SPD. SUPERCH. HAMILTON STD. 11 3/4" DIA. - 3 BL. P.F. HYDROMATIC	T 1600/3000 M 1400/11500 C 1350/5500 1275/12000	S 61'4" L 48'0" H 18'1" T 17' W 465 sq. ft.	B 15600 C 22000 A-25000 W 27000A	4	MAIN - WINGS FUSELAGE BOMB BAY	4 - 390 1 x 100 2 - 590 1080 TOT.	1-.50 2-.50 1-.50 2-.50	500 1000 200	TUNNEL - FLEX. L.A.R. MAGELLAN REAR COCKPIT NOSE - FIXED	1-1000 1-500 4-250 10-100	(SEE C) 1-2000T 2-500 4-250 4-100	1000	SCR-27LN SCR-535 FM-26C RC-51	TECHNICAL ORDER 01-LOAD-1. (1 DEC. 1942) * SOME MODELS ONLY.
A-20C-DO -1 TO -10 INCL.	2	AS ABOVE EXCEPT FOR CHANGE TO R-2600-23 ENGINE	T 1600/3000 M 1400/10000 C 1350/5500 1275/11500	S 61'4" L 47'4" H 18'1" T 17' W 465 sq. ft.	B 16300 C 23000 A-25000 W 27000A	4	INBD. WINGS OUTBD. WINGS FUS. (BOMB BAY) BOMB BAY (SEE B)	2 x 136 2 x 64 2 x 70 or 4 - 580 1080 TOT.	1) 2) .50 4) a	500	TUNNEL - FLEX. REAR COCKPIT NOSE - FIXED	4-500 4-250 4-100	(SEE C) 1-2000T	2000	AS ABOVE	TECHNICAL ORDER 01-LOAD-1. (10 FEB. 1942) b NO TORPEDO PROVISIONS ON A-20C-1. a FOR ALTERNATE INSTALLATIONS SEE EX-306-A.
A-20G-DO -1 TO -15 INCL.	2	AS ABOVE	AS ABOVE	S 61'4" L 48'0" H 17'7" T 17'0" W 465 sq. ft.	B 17200 C 24000 A-25000 W 27000A	3	AS ABOVE	1 (-30 or 1-.50 1-.50 6-.50	500 500 350	TUNNEL - FLEX. REAR COCKPIT NOSE - FIXED	4-500 4-250 4-100	(SEE C) 1-2000T	2000	SCR-27LN SCR-535A SCR-695A MN-26Y RC-36 RC-198 SCR-522	TECHNICAL ORDER 01-40 (5 APRIL 1944) * ARMAMENT FOR A-20G-1 IS (2).50 CAL. FIXED NOSE GUNS OF 350 RDS. EACH & (4) 20MM NOSE CANNON, TYPE M2 OF 60 RDS. EACH; MAJORITY ALLOCATED TO FOREIGN POWER.	
A-20G-DO -20 TO -45 INCL.	2	AS ABOVE	AS ABOVE	AS ABOVE	B 17700 C 25000 A-26000 W 27000A	3	INBD. WINGS OUTBD. WINGS FUS. (BOMB BAY) DROPP. - EXT. (SEE B)	2 x 136 2 x 64 3 - 325 1 x 374 1099 TOT.	1) 2) .50 6)	400 400 350	TUNNEL - FLEX. UPPER TURRET NOSE - FIXED	4-500 4-250 4-100	(SEE C) 1-2000T 4-500 4-250 4-100 1000	1000	SCR-27LN SCR-535 SCR-695A MN-26Y RC-36 RC-198 SCR-522	REFERENCE AS ABOVE * NO PROVISIONS FOR TORPEDO ON A-20G-40 & -45. * A-20G-45 HAS MN-26C INSTEAD OF MN-26Y. * SCR-522 INSTALLED ON THE -15'S ONLY.
A-20J-DO -1 TO -20 INCL.	2	AS ABOVE	AS ABOVE	S 61'4" L 48'7" H 17'7" T 17'0" W 465 sq. ft.	B 17800 C 25000 A-26000 W 27000A	4	AS ABOVE	1) 2) .50 2)	400 400 350	TUNNEL - FLEX. UPPER TURRET NOSE - FIXED	A S	A B O V E		SCR-27LN SCR-695A MN-26C RC-36 RC-198 SCR-522	REFERENCE AS ABOVE * NO PROVISIONS FOR TORPEDO ON A-20J-15 & -20.	

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND				HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT					RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE					
	GROSS WEIGHT LB.	TO CLEAR 50' DIST.		LANDING SPEED MPH	GROUND-RUN DIST.		STD. ALT. FT.	MIL. POWER HIGH SPEED MPH	MAX. CONTIN. POWER RATE OF CLIMB FT./MIN.	TIME TO CLIMB MIN.	TAKE OFF WEIGHT LB.	BOMBS-CARGO-PASS. LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE							
		FT.	FT.		FT.	FT.								AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	RANGE MILES	ENDUR. HOURS		RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES
A-20B-DL	17000 19000 22000 24000 27000	- 2800 4000 5000 5500	- 2700 3000 - -	88 95 105 - -	1500 1650 3000 - -	25000 20000 15000 10000 5000 S L	200 170 1125 800 310 287	370 300 1125 750 310 287	290 200 312 277 277 287	4.6 3.7 1.75 1.4 1.3 0.0	23800 21000	NONE 1000	1080 490	850 300	3.0 1.3	1150 500	4.4 1.9	1500 600	6.3 2.5	- -	- -	2100 900	12.1 5.4		
A-20C-DO -1 TO -10 INCL.	18000 20000 23000 25000 27000	- 3200 4400 5500 5500	- 2800 3150 - -	91 98 108 - -	1500 1750 3250 - -	25000 20000 15000 10000 5000 S L	200 170 1125 800 310 287	370 300 1125 750 310 287	290 200 312 277 277 287	4.6 3.7 1.75 1.4 1.3 0.0	24500 23200	NONE 2000	1080 540	875 350	3.0 1.4	- -	- 675	1500 675	6.0 2.4	- -	- -	2300 1000	10.8 6.0		
A-20G-DO -1 TO -15 INCL.	19000 21000 24000 26000 27000	2550 3250 4100 5000 5700	3000 3350 3650 - -	95 100 105 - -	2000 2700 3350 2100 -	25000 20000 15000 10000 5000 S L	275 200 1125 800 310 287	370 300 1125 750 310 287	270 200 312 277 277 287	4.6 3.7 1.75 1.4 1.3 0.0	25300 24000 24000	NONE 2000 2000T	1080 540 540	925 430 350	3.1 1.5 1.4	1170 435 405	4.8 2.2 2.2	1440 630 565	5.7 2.5 2.3	1360 505 460	6.3 2.6 2.6	2035 880 785	10.5 4.2 4.0		
A-20G-DO -20 TO -45 INCL.	A S	A B C V E	A B C V E	A B C V E	A S	25000 20000 15000 10000 5000 S L	275 200 1125 800 310 287	370 300 1125 750 310 287	270 200 312 277 277 287	4.6 3.7 1.75 1.4 1.3 0.0	26200 25000 26000 26000	NONE 2000 2000T 4000	1099 725 725 400	720 600 485 380	2.5 2.0 1.8 1.1	*1180 *630 *575 *165	*4.9 *3.0 *3.0 *1.3	1620 1015 935 480	6.7 4.3 4.3 2.2	*1365 *720 *640 *185	*6.4 *5.7 *5.5 *1.4	1930 1170 1055 540	9.4 5.7 5.5 2.7	* FLIGHTS ABOVE 10000 FT. REQUIRE SPECIAL PROVISIONS FOR OXYGEN.	
A-20J-DO -1 TO -20 INCL.	A S	A B C V E	A B C V E	A B C V E	A S	25000	275	370	270	4.6	A S	A B C V E	A S	A B C V E	A B C V E	A B C V E	A B C V E	A B C V E	A B C V E	A B C V E	A B C V E	A B C V E	A B C V E	A S A B O V E	

NOTES: (A) CRITICAL FLIGHT CHARACTERISTICS RESULT ABOVE 27000 LB. (B) FUSELAGE TANKS ARE CARRIED IN BOMB BAYS WITHOUT AFFECTING BOMB LOAD CAPACITY. (C) PROVISIONS ONLY FOR TORPEDO: A-20 SERIES NOT BEING USED FOR TORPEDO MISSIONS AS PER MILITARY REQUIREMENTS POLICY NO. 37 DATED JULY 3, 1943. RANGE VALUES WITH TORPEDO ARE SHOWN FOR COMPARATIVE REFERENCE.

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK  
\* MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY.  
T TORPEDO (REPLACES INTERNAL BOMBS WHEN CARRIED)  
x EXTERNAL



A-20  
"HAVOC"

MANUFACTURED BY DOUGLAS (SANTA MONICA) "DO" (LONG BEACH) "DL"

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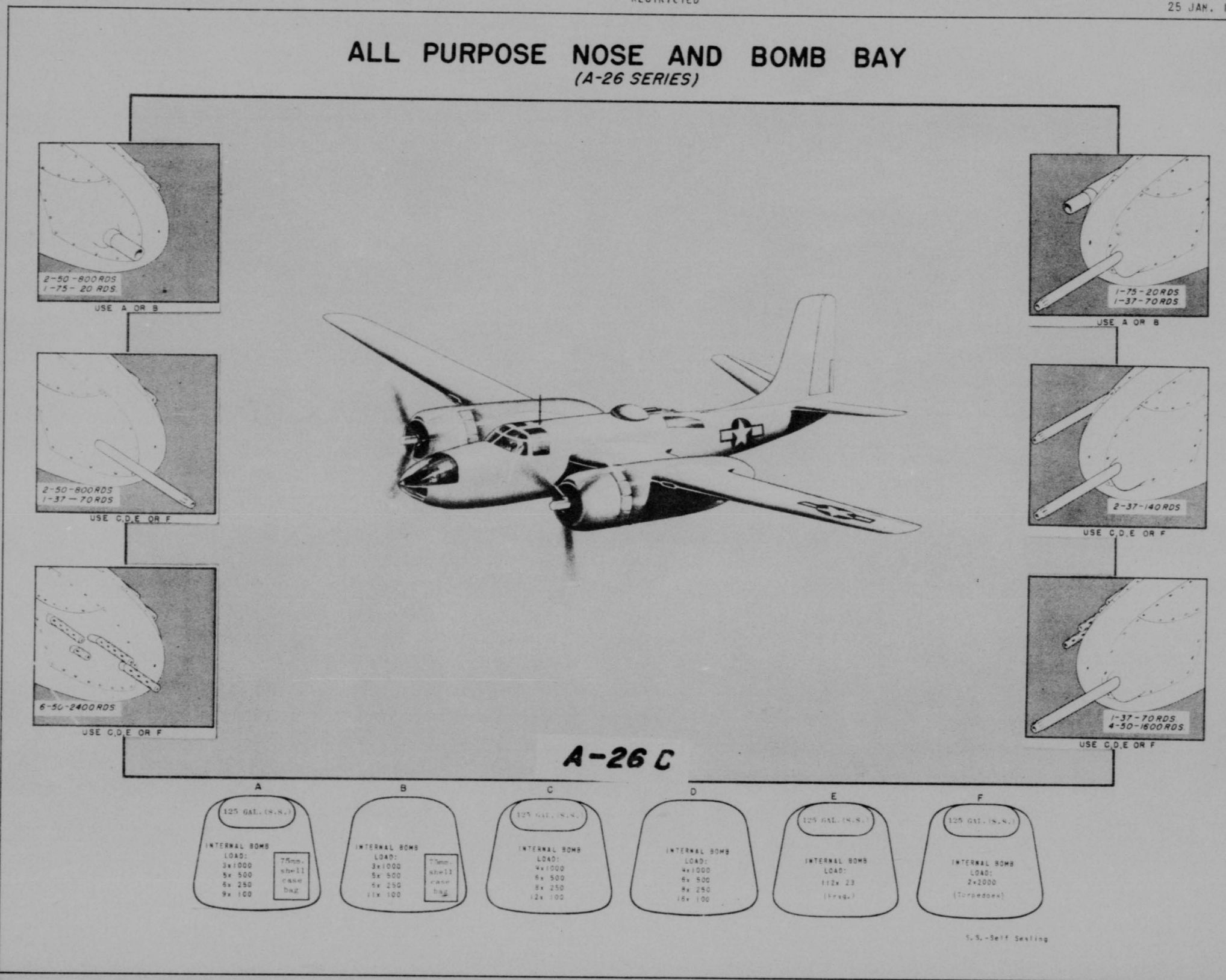


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PAGE 22  
AS OF:  
25 JAN. 1945

### ALL PURPOSE NOSE AND BOMB BAY (A-26 SERIES)



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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE	WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.			RADIO	REMARKS & REFERENCE		
	ENGINE MFR. MODEL	B.H.P./ALT.	S-SPAN	B-BASIC		TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL		MAX. LOAD LB.	RADIO TYPE			
											T-TAKE-OFF	L-LENGTH				C-COMBAT	NO. & SIZE OR STATION
A-26B-1 A-5 (DL)	FRATT-WHEIDENY R-2600-27 SINGLE ST. -28SP. HAMILTON STD. 12" DIA. - 3BL. F.F. HYDROMATIC	2000/3 L	5 70'	B 23275	2	MAIN - WING 2 x 300 AUX. - WING 2 x 100 BOMB BAY(S) 1 x 125 SEE (f) 1600 T.O.T.	1-750L 2-50 2-50	20 500 500	4 WING-PACKAGE UPPER TURRET LOWER TURRET	4-1000	2-2000T	4-1000	SCR-27LN SCR-595 RC - 36 SCR-522	TECHNICAL ORDER 01-40AJ-1. (REV. 5 DEC. 1944) (a) PARTS PROCEDURE FOR SERVICE INSTALLATION OF ALL-PURPOSE NOSE AS SHOWN ON OPPOSITE PAGE. (b) SEE PAGE OPPOSITE FOR BOMB LOAD CARRIED WITH 75MM. GUN. (c) NORMAL CREW (2); WITH 75MM. CANNON CREW IS (3). (f) THE A-26B-1-DL HAS NO SELF SEALING BOMB BAY TANK.			
A-26B-10 to-30 (DL)		AS ABOVE	5 70'	B 23325						AS ABOVE	2	AS ABOVE			4-1000	2-2000T	4-1000
A-26B-10 to-20 (DT)		AS ABOVE	5 70'	B 23325						AS ABOVE	2	AS ABOVE			4-1000	2-2000T	4-1000
A-26C-15, -16, -20, DT -25	AS ABOVE	AS ABOVE	5 70'	B 23700	3	AS ABOVE	2) .50 2) .50	400 500 500	WING-PACKAGE UPPER TURRET LOWER TURRET	4-1000 2-2000T 4-1000	SCR-27LN SCR-522 SCR-595 RC - 36 SCR-269 AN/ARN-7	TECHNICAL ORDER 01-40AJ-1. (REV. 5 DEC. 1944)					

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND					HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT					RANGE & ENDURANCE STATUTE AIR MILES-NO WIND-NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE				
	GROSS WEIGHT LB.	TO CLEAR 50'		LANDING SPEED M.P.H.	GROUND-RUN		STD. ALT. FT.	MIL. POWER HIGH SPEED M.P.H.	MAX. CONTIN. POWER RATE OF CLIMB FT./MIN.	TIME TO CLIMB MIN.	TAKE OFF WEIGHT LB.	BOMBS-CARGO-PASS. U.S. GAL.	MAX. CONTINUOUS POWER					MAX. CRUISE POWER							
		T.O. DIST. FT.	LAND. DIST. FT.		T.O. DIST. FT.	LAND. DIST. FT.							RANGE ENDUR. MILES	RANGE ENDUR. HOURS	RANGE ENDUR. MILES	RANGE ENDUR. HOURS	RANGE ENDUR. MILES	RANGE ENDUR. HOURS	RANGE ENDUR. MILES	RANGE ENDUR. HOURS					
		A-26B-1 to -30 (DL)	25000		-	2650							96	-	1750	20000	337	250	100	31.4		15000	3000	1600	1090
A-26B-1 to -20 (DT)	29000	2900	2950	104	2100	3000	15000	355	720	311	520	15.3	15000	3000	925	660	2.0	985	4.4	1350	4.3	1175	4.6	1735	7.9
A-26C-15, -16, -20, DT -25	35000	4900	3250	111	2700	2250	5000	350	1540	320	2.7	34000	3000	925	660	2.0	985	4.4	1300	4.3	1125	4.6	1640	6.9	

NOTES:

(A) THE REMOVABLE WING PACKAGE GUNS ARE AN ALTERNATE INSTALLATION AND MAY BE MOUNTED ON WING BOMB BAY IN PLACE OF BOMB.

ENGINE NOTE: SOME A-26 MODELS USE WATER INJECTION ENGINES; MODELS R-2600-27 & -79.

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK.  
\* MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY.  
\* EXTERNAL  
\* TORPEDO

**A-26**  
"INVADER"

MANUFACTURED BY DOUGLAS (Long Beach) "DL" & DOUGLAS (Tulsa) "DT"

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.		COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE
	ENGINE MFR. MODEL	B.H.P./ALT.	S-SPAN	B-BASIC	TANK TYPE	NO. TANKS & CAPACITY		NO. GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE	EXTERNAL NO. & SIZE	MAX. LOAD LB.	TYPE		
A-36 A-NA	1	ALLISON V-1710-87 SINGLE SPEED CURTISS 10 1/2" DIA. - 3 BL. COMBAT. 2 P.D. - 1 BL.	T 1325/8 L M 1325/3400 W* 1500/2500 C 1100/6600	S 37' 0" L 32' 3" H 12' 2" T 11' 10" W 233 sq. ft.	B 7100 C 10000 A-10700 W -	1	MAIN - WING KIT. - WINGS	2 x 90 2 x 75 or 2 x 150 150 TOT.	2-.50 4-.50	200 200	NOSE - FIXED WING - FIXED	NONE	2-500 2-325 2-250	1000	SCR-27LH SCR-535 or SCR-595**	TECHNICAL ORDER 01-608B-1. ( 10 JULY 1943) ** WAR EMERGENCY RATING. ** LAST 599 ONLY.

MODEL & BLOCK NO.	TAKE OFF & LANDING					HIGH SPEED & CLIMB					RANGE & ENDURANCE										REMARKS ON PERFORMANCE		
	HARD SURFACE - NO WIND					AT NORMAL COMBAT WEIGHT					STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE												
	GROSS WEIGHT	TO CLEAR 50'		LANDING SPEED	GROUND-RUN	WEIGHT	STD. ALT.	MIL. POWER	MAX. CONTIN. POWER	TAKE OFF WEIGHT	BOMBS-CARGO-PASS.	TOTAL FUEL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE						
A-36 A-NA	9000 10000 11000	2800 3400 4100	3000 3500 4200	- - -	2050 2500 3200	10000 15000 20000	288 295 305 310 295	500 1025 1525 2075 2200	277 285 293 293 275	300 300 300 300 300	16.6 9.1 5.1 2.4 0.0	11000 10000 9000 10000	NONE NONE NONE NONE	180 330 150 180	1100 1000 550 500	5.1 3.5 1.8 1.8	- - - -	- - - -	- - - -	2100 1500 850 800	9.4 7.0 3.5 3.4	* WITH 2-500 LB. EXTERNAL BOMBS.	

NOTES:

SEE NOTES AND PRELIMINARY. SUBJECT TO REVISION AFTER FLIGHT CHECK.  
\* MILITARY POWER AVAILABLE FOR 15 MINUTES.



A-36  
"MUSTANG"

MANUFACTURED BY NORTH AMERICAN (Inglewood) "NA"

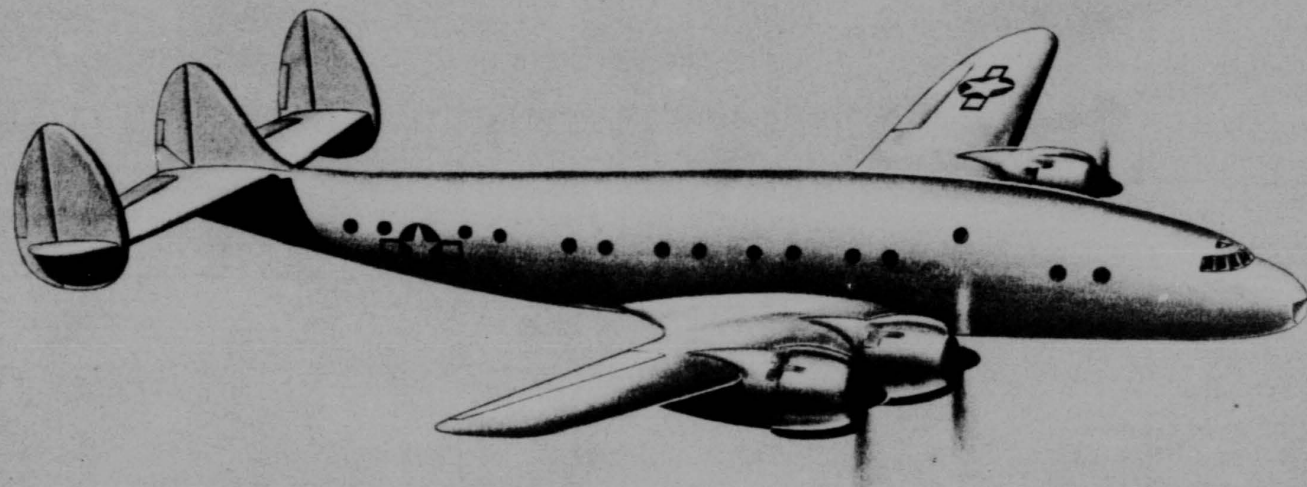
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25 JAN. 1945



C-69 CONSTELLATION

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.		FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO		REMARKS & REFERENCE	
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT W-WEIGHT	COMBAT CREW	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL EXTERNAL		MAX. LOAD LB.	TYPE		
												NO. & SIZE OR STATION	NO. & SIZE OR CAPACITY				
C-46A-5 to -55 (CU) C-46A-1, -5, -55 (CX) C-46A-1 (CS) C-46B-1, -5, -10 (CU)	2	PRATT-WHITELEY R-2800-71 or -75 2 SPEED CURTISS SUPERCHARGER 13'6" DIA. - 3BL. F.P. HYDROMATIC	T 2000/1500 M 2000/1500 C 1600/13500	S 108'0" L 76'4" H 22'0" T 26'0" W 1360 SQ. FT.	B 32400 C 16000 W 13600	4	WING-PANELS FUSELAGE 6-1100 8x100 2200 TOT.	0	0	N	C	E	E	FORE-BELLY 3700 APT-BELLY 1600 MAIN-CABIN 10000 or 50 TROOPS	15000	SCR-211, 289, 271, 287, 518, 578 & 695, 80-36, 13, 103, 198, AN/APN-1	TECHNICAL ORDER 01-251A-1. (25 JUNE 1944) * MAX. RADIO COMBINATION LISTED. * R-2800-75 ENGINES ON LATE C-46A-55-CU & CX; C-46B-10-CU.
C-47A to -90 (DL) C-47A to -30 (DX) C-53C & D (DL)	2	PRATT-WHITELEY R-1830-92 INTEGRAL SUPER. HAMILTON STD. 11'7" DIA. - 3BL. F.P. HYDROMATIC	T 1200/850 M 1050/7500 C 1050/7500	S 95'0" L 64'6" H 17'0" T 18'6" W 987 SQ. FT.	B 16500 C 26000 W 16500	4	MAIN-WINGS ANT.-WINGS FUSELAGE 2x202 2x200 8x100 1604 TOT.	0	0	N	C	N	E	CARGO or TROOPS or LITTERS 5000 27 18 10000 MAX	10000 MAX	SCR-211, 289, 271, 287, 522, 578, 595, 80-36, 13, 103, 198, AN/APN-1	TECHNICAL ORDER 01-400C-1. (REV. 5 SEPT. 1944) (c) INCLUDES 1000 LB. MISC. EQUIPMENT. * MAX. RADIO COMBINATION LISTED. (AN/APN-2 ON SOME MODELS) NOTE: C-47 & C-53 SERIES SIMILAR EXCEPT FOR LARGE CARGO DOOR ON C-47 & (28) PLACES IN C-53.
C-47B-04 -1 to -20 C-47B-01 -1	2	PRATT-WHITELEY R-1830-90C 2 SPEED HAMILTON STD. 11'7" DIA. - 3BL. F.P. HYDROMATIC	T 1200/850 M 1050/7500 C 1050/7500	S 95'0" L 65'9" H 16'11" T 18'6" W 987 SQ. FT.	B 18150 C 26000 W 18150	4	AS ABOVE	0	0	N	C	N	E	AS ABOVE	AS ABOVE	AN/APN-1	TECHNICAL ORDER 01-400C-1. (NOV. 1944)
C-60A-L0 A to -5	2	WRIGHT R-1820-87 2 SPEED HAMILTON STD. 10'6" DIA. - 3BL. F.P. HYDROMATIC	T 1200/850 M 1200/5700 C 1000/8100	S 95'8" L 49'10" H 12'0" T 15'4" W 551 SQ. FT.	B 13000 C 21000 W 13000	5	FRONT-WINGS REAR-WINGS ANT.-CABIN 2x150 2x172 3x134 1046 TOT.	0	0	N	C	N	E	BELLY CABIN or PARATROOPS 3400 6600 or 18"	8500	SCR-211, 289, 271, 287, 578, 695, 595, 80-36, 13, 103, 198, AN/APN-1	TECHNICAL ORDER 01-750E-1. (REV. 15 AUG. 1944) * MAX. RADIO COMBINATION LISTED. * 1200 LB. BALLAST REQUIRED IN NOSE TO BALANCE PARATROOPS.
C-82-FA	2	PRATT-WHITELEY R-2800-22C INTEGRAL SUPER. HAMILTON STD. 15'2" DIA. - 3BL. F.P. HYDROMATIC	T 2100/1000 M 2100/1000 C 1700/7000	S 106'5" L 75'10" H 26'4" T 28'0" W 1100 SQ. FT.	B 27500 C 17000 W 27500	5	MAIN-WINGS ANT.-WINGS 4-3120 2-314 3144 TOT.	0	0	N	C	N	E	* CARGO or TROOPS or LITTERS 5500 5 1 42 32	19100	SCR-271AN, 287A, 211, 515, 269, 695, 578, 80-36, 13A, 103.	ALL DATA TENTATIVE; BASED ON XC-82. * AIRPLANE DESIGNED FOR TOWING ONE 18000 LB. GLIDER or TWO 7000 LB. GLIDERS. ** PLUS (1) CASUALTY ATTENDANTS.

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE
	GROSS WEIGHT LB.	TO CLEAR 50 FT.		LANDING SPEED MPH	GROUND RUN		STD. ALT. FT.	MIL. POWER HIGH SPEED	MAX. CONTIN. POWER RATE OF CLIMB FT/MIN	TIME TO CLIMB MIN	TAKE OFF WEIGHT LB.	BOMBS CARGO PASS. LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER AT 10000 FT.		MAX. CRUISE POWER AT 10000 FT.		LONG RANGE AT 10000 FT.					
		T.O. DIST. FT.	LAND. DIST. FT.		T.O. DIST. FT.	LAND. DIST. FT.								RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS				
		FT.	FT.		FT.	FT.								MILES	HOURS	MILES	HOURS	MILES	HOURS				
C-46A-5 to -55 (CU) C-46A-1, -5, -55 (CX) C-46A-1 (CS) C-46B-1, -5, -10 (CU)	34000 39000 45000 50000	- 2050 2700 3500	2250 2160 2650 -	82 86 95 -	1200 1400 1600 -	20000 15000 10000 5000 S L	260 264 262 245	530 760 900 1100 1300	257 264 256 255 240	400 650 750 900 900	28.4 18.6 11.6 5.5 0.0	51000 47000 47000 51000	2000 4000 6000 10000	2200 1600 1050 1050	1600 850 750 700	6.2 3.8 2.8 2.7	- - - -	2600 1100 1200 1100	11.7 6.1 5.3 5.3	- - - -	2950 1900 1350 1200	14.3 9.8 6.4 6.1	
C-47A to -90 (DL) C-47A to -30 (DX) C-53C & D (DL)	21000 23000 26000 29300	- 1850 2100 3200	2100 2500 2600 -	66 69 73 -	1300 1400 1600 -	20000 15000 10000 5000 S L	SAME AS FOR MAX. CONTIN. POWER	201 217 224 219 203	360 650 900 1250 1020	29.7 15.6 10.0 5.0 0.0	29300 26000 29300 or (27) TROOPS	NONE 100L 500L 80L	160L 850 650	1350 850 650	6.2 3.8 3.0	ABOVE PRAC-TICAL CRUIS-ING CEILING	FRAC-TICAL CRUIS-ING CEILING	2340 1560 1115	12.3 8.3 5.8	ABOVE PRAC-TICAL CRUIS-ING CEILING	3050 2100 1475	18.6 12.9 9.0	* MAX. PERMISSIBLE LEVEL FLIGHT SPEED FOR 29000 LB. IS 187 MPH. (I.A.S.)
C-47B-04 -1 to -20 C-47B-01 -1	21000 23000 26000 29300	2100 2350 2850 3300	1530 1650 2750 -	71 73 76 -	850 940 980 -	20000 15000 10000 5000 S L	SAME AS FOR MAX. CONTIN. POWER	223 229 224 219 203	500 780 900 1250 1020	21.0 15.0 10.0 5.0 0.0	29300 29000 26000 29300 or (27) TROOPS	NONE 1400 2000 5000 80L	160L 120L 100L 80L 650	1350 1090 850 650	6.2 5.3 3.8 3.0	2550 2040 1600 1190	12.9 10.4 7.9 6.2	2340 1675 1560 1115	12.2 9.4 8.3 5.8	- - - -	3050 2475 2100 1475	18.6 14.4 12.9 9.0	AS ABOVE
C-60A-L0 A to -5	14000 17500 18500 21000 23000	- 1800 2050 2850 3300	2150 2600 2700 -	61 68 70 -	1700 2100 2200 -	20000 15000 10000 5000 S L	259 269 260 255 238	650 1300 1400 1600 1600	500 1000 1200 247 235	19.0 11.0 7.0 3.0 0.0	21000 23000 23000	1450 5000	1046 600	1000 600	4.1 2.5	ABOVE PRAC-TICAL CRUIS-ING CEILING	FRAC-TICAL CRUIS-ING CEILING	1150 850	6.3 3.9	ABOVE PRAC-TICAL CRUIS-ING CEILING	2300 1200	13.0 7.0	* 5000 LB. CARGO or 16 PARATROOPS & 1200 LB. BALLAST IN NOSE. ** SPEED RESTRICTED IN LEVEL FLIGHT.
C-82-FA	42000 47000 50000	1920 2950 3000	1920 2550 -	90 92 -	1650 2000 -	20000 15000 10000 5000 S L	325 227 223 228 215	475 675 900 1125 1350	322 326 321 323 212	140 625 820 1075 1180	27.0 16.5 9.9 4.8 0.0	50000 42000 50000 50000	NONE 2500 10000 10460	344 1850 1925 164	- - - -	- - - -	ABOVE PRAC-TICAL CEIL.	ABOVE PRAC-TICAL CEIL.	- - -	1660 2700 2115 390	32.3 20.6 14.4 2.4		

NOTES:  
SEE NOTES PREVIOUS DATA.  
(A) PERMISSIBLE ONLY WITH ALL WING TANKS FULL.



C-82  
"PACKET"



C-46A  
"COMMANDO"



C-47A  
"SKYTRAIN"



C-60A  
"LODESTAR"

MANUFACTURED BY CURTISS (Buffalo) "CU"; CURTISS (Louisville) "CX"; CURTISS (St. Louis) "CS"; DOUGLAS (Long Beach) "DL" & DOUGLAS (Oklahoma) "DX"; LOCKHEED (Burbank) "LO"; AIRCHILD (Lagerstown) "FA" & NORTH AMERICAN (Dallas) "NT"

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## TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

PAGE 27  
AS OF:  
23 JAN. 1945


MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE											
	NUMBER	ENGINE MFG. MODEL SUPERCHARGER PROP MFG. TYPE	B.H.P./ALT.	T-TAKE-OFF			S-SPAN	L-LENGTH	H-HEIGHT	T-TREAD	W-WING AREA	B-BASIC	C-COMBAT			A-REC-LIM	W-WAR MAX	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL NO. SIZE OR STATION	EXTERNAL NO. SIZE OR CAPACITY	MAX. LOAD LB.	TYPE
C-54A-00 -1, 3-5 C-54A-DC -1 to -20	4	PRATT-WHITELEY R-2000-7 2 SPEED HAMILTON STD. 13" DIA. - 3 BL. F.F., HYDRA-MATIC	T 1350/8 L M 1350/14000 C 1015/9000 940/13500	S 117' 6" L 93' 10" H 27' 6" T 21' 8" W 1260 SQ. FT.	B 37000 C 38000 A 38000 W 85000A	6	IND. - WINGS OUTRD. - WINGS FUSELAGE	2 x 490 2 x 420 1 x 450	2 2 1	N	0	N	E	FOR-BELLY 1800 AFT-BELLY 2100 FOR-CARGO 24000 AFT-CARGO 14000 TROOPS 30 or 50	SCR-211, 259, 271, 287, 275, 280 or 695, 28-30, 13, 105, 198, AS/AM-7, BC-695	TECHNICAL ORDER 01-100M-1. (REV. 25 JUNE 1944) * MISC. RADIO CARRIED: MAX. COMBINATION SHOWN. NOTE: 30 TROOPS WITH FUSELAGE TANKS (3620 GAL.) 50 TROOPS WITHOUT FUSELAGE TANKS (1820 GAL.)										
C-54B-1 to -20 (00) C-54B-1 (00)	4	AS ABOVE	AS ABOVE	AS ABOVE	B 38700 C 38000 A 38000 W 85000A	6	IND. - WINGS OUTRD. - WINGS AUX. - WINGS FUSELAGE	2 x 490 2 x 510 2 x 420 2 x 450	2 2 2 1	N	0	N	E	TROOPS 41 or 49* LITTERS 28 or 36*	AS ABOVE PLUS EM-26 APU-4	TECHNICAL ORDER 01-100M-1 (10 OCT. 1944) * 41 TROOPS or 28 LITTERS WITH FUSELAGE TANKS (3740 GAL.) 49 TROOPS or 36 LITTERS WITHOUT FUSEL. TANKS (2812 GAL.) FOUR C-54B-1 PLANES HAVE REDUCED LITTER CAPACITY.										
C-54E-DO C-54D-DC SEE *	4	PRATT-WHITELEY R-2000-11 2 SPEED HAMILTON STD. 13" DIA. - 3 BL. F.F., HYDRA-MATIC	T 1100/8 L M 1100/7000 C 1100/7000	AS ABOVE	B 38700 C 38000 A 38000 W 85000A	6	IND. - WINGS OUTRD. - WINGS AUX. - WINGS	2 x 500 2 x 350 2 x 420 2 x 490	2 2 2 1	N	0	N	E	TROOPS 41	AS ABOVE PLUS SUR-718	PRELIMINARY ENGINEERING DATA. * C-54D HAS (1) R-2000-11 ENGINE; LOADINGS & INSTALLATION SIMILAR TO C-54B.										
C-69-10 -1, -5, -10	4	PRATT-WHITELEY R-2550-35 SINGLE or 2 SPEED HAMILTON STD. 15" DIA. - 3 BL. F.F., HYDRA-MATIC	T 2150/8 L M 2150/6200 C 2085/6500	S 123' 0" L 95' 2" H 33' 8" T 28' 0" W 1650 SQ. FT.	B 50500 C 82000 A 50500 W 101000A	9	WINGS WINGS SEE (F)	2 x 1589 2 x 219	2 2	N	0	N	E	60 PASSENGER NO. 2 SUN- FURNITURE NO. 13, 17, 28 & 107	SCR-274, (2) 269, 287, 211, & 695.	TECHNICAL ORDER 01-750J-1. (10 NOV. 1943) * HORSEPOWER RATINGS SHOWN ARE WITH SINGLE SPEED BLOWER. TOTAL FUEL CAPACITY OF 1st. & 2nd. STAGES IS 1000 GAL. 5th. & SUBSEQUENT ARTICLES ARE SHOWN.										
C-87 C-87A CF C-87B	4	PRATT-WHITELEY R-1850-13 or -65 TURBO HAMILTON STD. 11" DIA. - 3 BL. F.F., HYDRA-MATIC	T 1200/8 L M 1200/26500 C 1100/27000	S 110' 0" L 96' 4" H 18' 0" T 25' 8" W 1042 SQ. FT.	B 34250 C 56000 A 34250 W 62000	5	IND. - WINGS OUTRD. - WINGS	12-2364 6-450	12 6	1-50 (ON SOME MODELS ONLY)	500	TAIL - FLEX.	CHAIRS or LITTERS & BENCH	20 or 7 & 11	SCR-274, 269, 287, 278 & 695 BC-36, BC-43.	TECHNICAL ORDER 01-50A-1. (15 DEC. 1943)										

COLUMN --- 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17


MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE		
	TO CLEAR 50		LANDING SPEED	GROUND-RUN		STD. ALT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT	BOMBS-CARGO-PASS.	TOTAL FUEL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE							
	T.O. DIST.	LAND. DIST.		T.O. DIST.	LAND. DIST.		HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB				TIME TO CLIMB	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	RANGE	ENDUR.	RANGE	ENDUR.		RANGE	ENDUR.
	FT.	FT.	MPH	FT.	FT.	FT.	MPH	FT./MIN.	MPH	FT./MIN.	MIN.	LB.	LB.	U.S. GAL.	MILES	HOURS	MILES	HOURS	MILES	HOURS	MILES	HOURS			
C-54A-00 -1, 3-5 C-54A-DC -1 to -20	15000	1500	2300	88	-	1800	-	-	269	425	24.4	62000	NONE	3620	1740	6.6	ABOVE PRAC-TICAL CRUIZ-ING CEILING	3300	14.2	ABOVE PRAC-TICAL CRUIZ-ING CEILING	4000	22.6	* 8000 LB. CARGO or 30 TROOPS & 2000 LB. EQUIPMENT. ** 11,000 LB. CARGO or 50 TROOPS & 4000 LB. EQUIPMENT.		
C-54B-1 to -20 (00) C-54B-1 (00)	55000	2300	2750	94	1600	2200	-	-	278	800	16.0	65000	*8500	2720	1265	5.0		2400	10.4		2800	11.9			
	59000	2750	2900	-	1850	-	-	-	278	1000	9.4	59000	*8500	1820	1015	3.3		1550	6.3		1850	10.3			
	62500	3250	-	-	2150	-	-	-	260	1100	4.4	65000	*14000	1820	820	3.3		1500	6.3		1750	7.0			
	65000	4100	-	-	2350	-	-	-	1150	1050	0.0														
	73000	4750	-	-	2700	-	-	-	700	235	600	0.0	73000*	21000	2036	690	5.6	AS ABOVE	1750	7.2	AS ABOVE	2100	9.8	* LANDING WEIGHT LIMITED TO 62000 LB.	
C-54E-DO C-54D-DC																									
C-69-10 -1, -5, -10	62000	1850	2575	87	1275	1100	20000	308	-	303	440	22.8	82000	NONE	4816	1760	5.6	-	2745	9.5	-	4000	19.1	ALL PERFORMANCE SHOWN WITH SINGLE SPEED SUPERCHARGER. * ALTERNATE CARGO IN LIEU OF PASSENGERS.	
	68000	2250	2810	90	1600	1590	15000	317	-	312	340	13.3	90000	8000	4816	1740	5.5	-	2700	9.4	-	3700	17.6		
	75000	2750	3200	92	1925	1675	10000	324	-	318	1220	7.2	86700	11600	3178	1120	3.6	-	1750	6.1	-	2350	11.2		
	82000	3255	-	-	2200	-	5000	322	1575	315	1460	3.1	84600	21000*	1638	540	1.8	-	850	3.0	-	1100	5.3		
	86000	3750	-	-	2500	-	10000	322	1770	291	1580	0.0													
	90000	4200	-	-	2700	-	5000	298	500	249	10.0														
C-87 C-87A CF C-87B	40000	-	3300	90	-	2800	30000	306	1050	300	850	26.8	58900	NONE	2814	1235	4.4	1375	4.4	2210	9.2	2050	8.0	3315	16.8
	50000	3600	3950	100	2650	3300	20000	293	1100	287	900	20.9	56000	3100	2814	1250	4.4	1325	4.4	2100	9.0	1990	8.0	3165	15.8
	56000	5050	4300	105	3600	3550	15000	260	1150	275	950	15.3	56000	5800	2364	995	3.6	1075	3.6	1670	7.2	1615	6.5	2595	12.9
	60000	6000	-	-	4750	-	10000	266	1200	262	1000	9.0	60000	9800	2364	955	3.6	1020	3.6	1545	6.7	1485	6.3	2455	12.2
							5000	259	1200	249	8.2														

18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45


NOTES:  
(A) PERMISSIBLE ONLY WITH ALL TANKS FULL.  
END FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK.  
\* MILITARY POWER AVAILABLE FOR 5 MINUTES.



C-54 "SKYMASTER"



C-69 "CONSTELLATION"



C-87 "LIBERATOR EXPRESS"

MANUFACTURED BY DOUGLAS (SANTA MONICA) "DO" & (CHICAGO) "DC"; LOCKHEED (BURBANK) "LO"; CONSOLIDATED "CF" (FT. WORTH)

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE	WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.			RADIO	REMARKS & REFERENCE		
	NUMBER	ENGINE MFGR. MODEL SUPERCHARGER PROP MFGR. TYPE	B.H.P./ALT.	S-SPAN		B-BASIC	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.		TYPE	
			T-TAKE-OFF	L-LENGTH		C-COMBAT						NO. & SIZE	NO. & SIZE				
P-38F-LO	2	ALLISON V-1710-149 & -53 TURBO CURTISS 11'6" DIA. - 38L. F.F. ELECTRIC	T 1225/S L M* 1150/27000 C 1000/27000	S 52' 0" L 37' 10" H 12' 10" T 16' 6" W 328 SQ. FT.	B 13000 C 15300 A 15000 W -	1	MAIN-WINGS RES. - WINGS 2 x 90 2 x 60 300 TOT.	1-200M. L-.50	150 500 (MAX.)	NOSE-TYPE M1 NOSE-FIXED	NONE	NONE	2-1000 2-500 2-325 2-250 2-100	SCR-183 of SCR-27LM	TECHNICAL ORDER 01-75F-1. (30 SEPT. 1944) * LIMITED TO 1150 HP. BECAUSE OF INADEQUATE COOLING.		
P-38F-LO -1 TO -15 INCL.	2	AS ABOVE	AS ABOVE	AS ABOVE	B 13600 C 15900 A 15000 W -	1	MAIN-WINGS RES. - WINGS DROPP. - EXTER. 2 x 90 2 x 60 2 x 75 2 x 150 500 TOT.	A S	A B O V E	NONE	NONE	NONE	2-1000 2-500 2-325 2-250 2-100	SCR-27LM** SCR-515** SCR-522 SCR-535 SCR-506*	REFERENCE AS ABOVE * PROVISIONS ONLY. ** SPACE ONLY.		
P-38G-LO -1 TO -15 INCL.	2	ALLISON V-1710-51 & -55 TURBO CURTISS 11'6" DIA. - 38L. F.F. ELECTRIC	T 1225/S L M* 1150/27000 C 1100/21000	AS ABOVE	B 13500 C 15000 A 15000 W -	1	AS ABOVE EXCEPT THAT LAST P-38G-10'S ARE SAME AS BELOW	A S	A B O V E	AS ABOVE EXCEPT LAST 200 P-38G-10'S ONLY ARE SAME AS BELOW	NONE	NONE	2-1000 2-500 2-325 2-250 2-100	SCR-27LM** SCR-515** SCR-522 SCR-535 SCR-506*	REFERENCE AS ABOVE * LIMITED TO 1150 HP. BECAUSE OF INADEQUATE COOLING. * PROVISIONS ONLY. ** SPACE ONLY. *** LAST 179 P-38G-10'S ONLY.		
P-38H-LO -1 & -5	2	ALLISON V-1710-89 & -91 TURBO CURTISS 11'6" DIA. - 38L. F.F. ELECTRIC	T 1425/S L M* 1425/25000 C 1100/34000	AS ABOVE	B 13700 C 16300 A 15000 W -	1	MAIN-WINGS RES. - WINGS DROPP. - EXTER. 2 x 90 2 x 60 2 x 75 2 x 150 300 TOT.	1-200M. L-.50	150 500 (MAX.)	NOSE-AN-M2** NOSE - FIXED	NONE	NONE	2-1200 2-1000 2-500 2-325 2-250 2-100	SCR-27LM** SCR-515** SCR-522 SCR-535 SCR-506*	TECHNICAL ORDER 01-75-1. (15 SEPT. 1944) * LIMITED TO 1240 HP. BECAUSE OF INADEQUATE COOLING. * PROVISIONS ONLY. ** SPACE ONLY.		
COLUMN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND				HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE							
	GROSS WEIGHT LB.	TO CLEAR 50'		LANDING SPEED MPH	GROUND-RUN		STD. ALT. FT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT LB.	BOMBS REEL LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE									
		T.O. DIST. FT.	LAND. DIST. FT.		T.O. DIST. FT.	LAND. DIST. FT.		HIGH SPEED MPH	RATE OF CLIMB FT/MIN.	HIGH SPEED MPH	RATE OF CLIMB FT/MIN.				TIME TO CLIMB MIN.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.		AT 25000 FT.	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS		
P-38F-LO	13500 15000 15800	- 2150 2300	2750 2980 -	85 90 -	- 1280 1380	1150 1580 -	15000 20000 25000	390 380 375	2100 2300 2600	380 365 340	# # #	11.0 8.0 6.0	15800	NONE	300	400	1.2	425	1.2	700	2.4	675	2.2	900	4.1			
P-38F-LO -1 TO -15 INCL.	13500 15000 15500 17500 19900	- 2150 2270 3040 4000	2750 2980 3050 3350 -	85 90 91 97 -	- 1280 1360 1620 1800 2100	1150 1580 1800 -	15000 20000 25000	390 390 376 351 347	2100 2300 2600 2800	380 367 354 340 327	# # # # #	12.0 8.8 6.0 4.0 1.8	19900 18000 15900 17000 18000	NONE NONE NONE 300 300	900 600 300 300 300	1170 800 450 395 375	3.9 2.6 1.2 1.2 1.2	1200 850 700 675 685	3.8 2.6 1.0 1.0 1.2	4070 1100 700 675 685	8.1 5.5 2.5 2.5 2.5	1900 1300 630 540 520	7.1 4.5 2.0 2.0 1.8	2270 1750 900 850 800	11.2 8.2 4.1 3.9 3.7			
P-38G-LO -1 TO -15 INCL.		AS ABOVE	AS ABOVE			15800	25000 20000 15000 10000 5000	400 390 375 360 345	1700 2300 2500 2600 2800	390 377 362 347 333	# # # # #	11.5 8.5 5.9 3.7 1.8	19800 17500 15800 16800 17800	NONE NONE NONE 300 300	900 600 300 300 300	1000 700 340 330 310	3.3 2.2 1.0 1.0 1.0	1100 750 350 320 310	3.4 2.2 1.0 1.0 1.0	- - - - -	1780 1200 570 510 480	6.2 4.0 1.8 1.7 1.6	2200 1670 855 760 740	10.8 7.9 3.9 3.5 3.4				
P-38H-LO -1 & -5	13600 15500 17500 19500 20300	- 2000 2500 3500 4000	2750 3050 3500 -	86 93 100 -	- 1300 1600 2000 2300	1150 1600 2000 -	15000 20000 25000	402 387 372 360 348	1700 2300 2600 2800	390 375 360 348 332	# # # # #	9.7 7.6 5.5 3.5 1.8	20300 18300 16300 18300 19500	NONE NONE NONE 300 300	900 600 300 300 300	1180 690 350 325 300	4.3 2.1 1.2 1.2 1.2	1150 690 375 325 300	3.5 2.0 1.2 1.2 1.2	1560 1000 650 575 550	5.4 3.7 2.5 2.5 2.1	2200 1560 850 750 700	10.2 7.2 4.2 3.5 3.1	NO WAR EMERGENCY POWER AVAILABLE BECAUSE OF INADEQUATE COOLING				
NOTES:	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK  
\* MILITARY POWER AVAILABLE FOR 15 MINUTES.



P-38  
"LIGHTNING"

MANUFACTURED BY LOCKHEED (Burbank) "LO"

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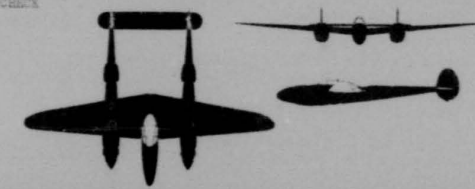
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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.		FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE		
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP. MFR. TYPE	B.H.P./ALT.		S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT W-WAR MAIL	COMBAT CREW	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL			MAX. LOAD LB.	TYPE
			T-TAKE-OFF M-MILITARY C-CONTINUOUS	T-TAKE-OFF M-MILITARY C-CONTINUOUS									NO. & SIZE	NO. & SIZE			
P-38J-LO -5&-10	2	ALLISON V-1710-99 & -91 TURBO SUPERCHARGER 11'6" DIA. - 3 BL. F.P. ELECTRIC	T 1425/S L M 1425/26500 C 1100/32500	S 52' 0" L 37' 10" H 12' 10" T 16' 6" W 328 sq. ft.	B 13700 C 16450	1	MAIN - WINGS RES. - WINGS DROPP. - EXTER.	2x 90 2x 60 2x 75 or 2x 150 of 2x 150 or 2x 300 1010 TOTAL	1-20MM 4-.50	150 (MAX.)	NOSE-AN M2" C" NOSE - FIXED	NONE	2-1600 2-1000 2- 500 2- 325 2- 250 2- 100	3200	EC-508* SCR-271N* SCR-515** SCR-522 SCR-695 MM-25*	TECHNICAL ORDER 01-75-1. (15 SEPT. 1944) * PROVISIONS ONLY. **SPACE PROVIDED.	
P-38J-LO -5 TO -25 INCL. [L.E. TANKS]	2	AS ABOVE	T 1425/S L M 1600/26500 C 1100/32500	AS ABOVE	B 14100 C 17500	1	MAIN - WINGS RES. - WINGS DROPP. - EXTER. (SEE P)	2x 90 2x 60 2x 75 or 150 or 165 or 300 1010 TOTAL	A S	A B O V E	-	-	A S	A B O V E	AS ABOVE	REFERENCE AS ABOVE IF THE 2-55 GAL. LEADING EDGE WING TANKS ARE INSTALLED AT FACTORY, MOD. CENTER OF FURNISHED TO SERVICE IN KITS. WAR EMERGENCY RATING.	
P-38L-LO -1&-5 P-38L-VN -5	2	ALLISON V-1710-111 & -113 TURBO SUPERCHARGER 11'6" DIA. - 3 BL. F.P. ELECTRIC	T 1425/S L M 1425/26500* C 1100/32500	AS ABOVE	B AS ABOVE C AS ABOVE	1	AS ABOVE	AS ABOVE	A S	A B O V E	-	-	A S	A B O V E	AS ABOVE	REFERENCE AS ABOVE * WAR EMERGENCY RATING. * INCREASED HP. RATING IS ANTICIPATED.	

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT										RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS
	GROSS WEIGHT LB.	TO CLEAR 50 FT. DIST.		LANDING SPEED MPH	GROUND-RUN		WEIGHT LB.	STD. ALT. FT.	WAR EMERG.		MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT LB.	BOMBS CARGO LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE					
		T.O. DIST. FT.	LAND. DIST. FT.		T.O. DIST. FT.	LAND. DIST. FT.			HIGH SPEED MPH	RATE OF CLIMB FT/MIN.	HIGH SPEED MPH	RATE OF CLIMB FT/MIN.	HIGH SPEED MPH	RATE OF CLIMB FT/MIN.				TIME TO CLIMB MIN.	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	
P-38J-LO -5&-10	15500 16500 18500 19600 20500	1900 2100 2750 3200 3850	3000 3200 3550 3750 4250	105 105 111 111 111	1050 1150 1500 1850 2000	1650 1750 1850 1950 2000	30000 25000 20000 15000 10000 5000	113 120 140 160 180	1850 2665 3190 395 380 363	1200 1600 2000 2875 3700 4500	1300 1700 2200 3000 3800 4500	150 190 240 310 390 450	10.0 8.0 6.2 4.5 3.9 3.1	20950 19050 16450 18450 19650	NONE NONE 300 300 3200	900 630 325 300 300	1000 750 325 300 290	3.4 2.3 1.0 1.0 1.0	1000 775 350 300 275	3.4 2.3 1.0 1.0 1.0	1700 1250 600 525 475	6.3 4.1 2.1 2.0 1.8	1750 1300 800 700 650	6.2 4.1 2.0 1.8 1.7	2200 1875 900 700 650	10.0 8.0 6.0 5.0 4.5	AS ABOVE
P-38J-LO -5 TO -25 INCL. [L.E. TANKS]	16000 17500 19500 20700 21600	2000 2200 3100 3600 4500	3100 3400 3750 4000 4500	109 111 111 111 111	1100 1300 1850 2000 2350	1750 1850 1950 2000 2000	30000 25000 20000 15000 10000 5000	145 141 163 190 217 260	1465 2115 2925 390 377 360	1300 1700 2200 3000 3800 4500	150 190 240 310 390 450	11.0 8.8 6.7 5.0 4.0 3.0	21600 20200 17500 19500 20700	NONE NONE 410 2000 3200	1010 740 410 410 410	1050 835 460 425 400	3.8 2.8 1.4 1.4 1.4	1070 900 475 425 410	3.8 2.8 1.4 1.4 1.4	1620 1360 800 710 685	6.3 4.7 2.6 2.4 2.6	1860 1460 840 750 725	6.2 4.7 2.6 2.4 2.4	2200 1810 900 700 650	10.0 8.0 6.0 5.0 4.5	AS ABOVE	
P-38L-LO -1&-5 P-38L-VN -5	A S	A B O V E	A B O V E	A B O V E	A B O V E	A B O V E	A S	A B O V E	A B O V E	A B O V E	A B O V E	A B O V E	A S	A B O V E	A B O V E	A B O V E	A B O V E	A B O V E	A B O V E	A B O V E	A B O V E	A B O V E	A B O V E	A B O V E	A S	AS ABOVE	

NOTES:

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECKS  
\* MILITARY POWER AVAILABLE FOR 15 MINUTES



P-38  
"LIGHTNING"

MANUFACTURED BY LOCKHEED (Burbank) "LO"

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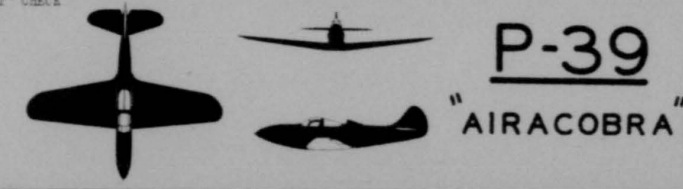
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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																		
MODEL & BLOCK NO.	NUMBER	ENGINE & PROP.		SIZE		WT.		COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS		RADIO	REMARKS & REFERENCE	
		ENGINE MFR. MODEL	B.H.P./ALT.	S-SPAN	B-BASIC	TANK	NO. TANKS		NO. GUNS	RDS.	LOCATION	INTERNAL	EXTERNAL	MAX. LOAD LB.	TYPE			
		SUPERCHARGER PROP MFR. TYPE	T-TAKE-OFF M-MILITARY C-CONTINUOUS	L-LENGTH H-HEIGHT T-TREAD W-WING-AREA	C-COMBAT A-REED LIM	OR LOCATION	& CAPACITY U.S. GAL.		& CALIBER	PER GUN	& TYPE	NO. & SIZE OR STATION	NO. & SIZE OR CAPACITY					
P-39D-BE	1	ALLISON V-1710-35 SINGLE SPEED CURTISS 10'5" DIA. - 3BL. CONST. SPD. HYDR.	T 1150/S L M 1150/12000 C 1000/10800	S 34' 0" L 30' 2" H 11' 10" T 11' 4" W 213 SQ. FT.	B 6300 C 7650 A 9000 W -	1	1	WING TOTALS PROP.-BELLY	12-120 1x 75 or 1x156 or 1x175 295 TOT.	4-.30 2-.50 1-37MM	*1000 200 30	WING - FIXED NOSE - FIXED PROP. - TYPE M	NONE	1-500 1-325 1-250 1-100	500	SCR-283	TECHNICAL ORDER 01-110PB-1. (30 JUNE 1943)	
P-39D-BE	-1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	4-.30 2-.50 1-20MM	*1000 200 60	WING - FIXED NOSE - FIXED PROP. - TYPE M	AS	AS ABOVE		SCR-274H OF SCR-522A & SCR-535A	TECHNICAL ORDER 01-110PB-1. (30 JUNE 1943)	
P-39D-BE	-2	ALLISON V-1710-63 SINGLE SPEED CURTISS 10'5" DIA. - 3BL. CONST. SPD. HYDR.	T 1325/S L M 1150/12000 C 1000/10800	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE
P-39F-BE	1	ALLISON V-1710-35 SINGLE SPEED AERO PRODUCTS 10'5" DIA. - 3BL. CONST. SPD. HYDR.	T 1150/S L M 1150/12000 C 1000/10800	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	4-.30 2-.50 1-37MM	*1000 200 30	WING - FIXED NOSE - FIXED PROP. - TYPE M	AS	AS ABOVE		SCR-283	TECHNICAL ORDER 01-110PB-1. (30 JUNE 1943)	
P-39K-BE	-1	ALLISON V-1710-63 SINGLE SPEED AERO PRODUCTS 10'5" DIA. - 3BL. CONST. SPD. HYDR.	T 1325/S L M 1150/12000 C 1000/10800	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	SCR-274H OF SCR-522A & SCR-535A	TECHNICAL ORDER 01-110PB-1. (30 JUNE 1943)

MODEL & BLOCK NO.	TAKE OFF & LANDING					HIGH SPEED & CLIMB					RANGE & ENDURANCE										REMARKS ON PERFORMANCE					
	HARD SURFACE - NO WIND					AT NORMAL COMBAT WEIGHT					STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE															
	GROSS WEIGHT	TO CLEAR 50'		LANDING SPEED	GROUND-RUN		WEIGHT	STD. ALT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT	BOMBS-CARGO-PASS.	TOTAL FUEL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE						
		T.O. DIST.	LAND. DIST.		T.O. DIST.	LAND. DIST.			HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB				TIME TO CLIMB	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.		AT 10000 FT.				
P-39D-BE	6700 7600 7800 8150 8850	- 2800 3000 3400 4500	1850 2050 2100 2200 -	82 86 88 91 -	1800 2000 2250 2800 -	1300 1350 1400 1400 -	7650	25000 20000 15000 10000 5000	322 312 360 355 335	750 1350 2000 2450 2850	310 330 343 345 323	11.0 9.1 6.1 3.9 1.9	8850 8800 8150 7650 8150	NONE NONE NONE NONE 500	295 276 195 120 120	550 525 400 275 225	2.0 1.8 1.4 0.8 0.8	- - - 1.5 -	- - 525 390 250	2.2 1.1 1.1 -	- - - - -	1100 1050 800 600 450	5.6 5.3 4.2 2.6 2.3	ALL PERFORMANCE ESTIMATED		
P-39D-BE	-1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	
P-39D-BE	-2	6700 7600 7800 8150 8850	- 2800 2700 3000 4200	1850 2050 2100 2200 -	82 86 88 91 -	1800 2000 2250 2800 -	1300 1350 1400 1400 -	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE
P-39F-BE	1	SIMILAR TO P-39D																								AS ABOVE
P-39K-BE	-1	SIMILAR TO P-39D-2																								AS ABOVE

NOTES:  
RANDOM P-39 MODELS MODIFIED FOR AIR/GROUND SUPPORT BY INSTALLATION OF CAMERAS, BELLY ARMOR, ETC.  
\* 1000 RIB./GSM MAX. FOR GROUND STRAPING; 300 RIB./GSM NORMAL.

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK  
# MILITARY POWER AVAILABLE FOR 15 MINUTES



P-39  
"AIRACOBRA"

MANUFACTURED BY BELL (Buffalo) "BE"



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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.		COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS			RADIO	REMARKS & REFERENCE
	NUMBER	ENGINE MFG. MODEL SUPERCHARGER PROP. MFG. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING-AREA	B-BASIC C-COMBAT W-WAR MAX	TANK TYPE OR LOCATION		NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL NO & SIZE OR STATION	EXTERNAL NO & SIZE OR CAPACITY	MAX. LOAD LB.	TYPE		
P-39L-BE -1	1	ALLISON V-1710-63 SINGLE SPEED CURTISS 10'5" DIA. - 3BL. CONST. SPD. HYDR.	T 1325/8 L M 1150/12000 C 1000/10800	S 34' 0" L 30' 2" H 11' 10" T 11' 4" W 213 SQ. FT.	B 6500 C 7900 W -	1	WING TOTALS 12-120 DROP.-BELLY 1x75 or 1x156 or 1x175 295 TOT.	4-.30 2-.50 1-37MM	*1000 200 30	WING - FIXED NOSE - FIXED PROP. - TYPE ML	NONE	1-500 1-325 1-250 1-100	500	SCR-274N or SCR-522A & SCR-535A	TECHNICAL ORDER 01-110PM-1. (30 JUNE 1943)		
P-39M-BE -1	1	ALLISON V-1710-63 SINGLE SPEED CURTISS 10'5" DIA. - 3BL. CONST. SPD. HYDR.	T 1200/8 L M 1125/15500 C 1000/11000	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	TECHNICAL ORDER 01-110PM-1. (30 JULY 1943)		
P-39N-BE -0 TO -5 INCL.	1	ALLISON V-1710-65 (A) SINGLE SPEED AERO PRODUCTS 11'7" DIA. - 3BL. CONST. SPD. HYDR.	AS ABOVE	S 34' 0" L 30' 2" H 12' 5" T 11' 4" W 213 SQ. FT.	B 6400 C 7600 W -	1	WING TOTALS 8-87 DROP.-BELLY 1x75 or 1x156 or 1x175 262 TOT.	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	SCR-274N or SCR-522A & SCR-535A	TECHNICAL ORDER 01-110PM-1. (10 AUG. 1943) * SCR-695 REPLACES SCR-535A ON P-39N-5 ONLY. ** 1st. 156 P-39N-0 BUILT-IN FUEL 120 GAL. KITS AVAILABLE IN SERVICE TO INCREASE FUEL OF ALL N's TO 120 GAL.		
P-39Q-BE -1 TO -15 INCL.	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	1	AS ABOVE EXCEPT: BUILT-IN FUEL** P-39Q-1.....87 GAL. P-39Q-5.....110 GAL. P-39Q-10 & -15-120 GAL.	2-.50 2-.50 1-37MM	300 200 30	WING - FIXED NOSE - FIXED PROP. - TYPE ML	AS ABOVE	AS ABOVE	AS ABOVE	SCR-274N or SCR-522A & SCR-695	TECHNICAL ORDER 01-110PM-1. (20 AUG. 1943) ** KITS AVAILABLE IN SERVICE TO INCREASE BUILT-IN FUEL OF P-39Q-1 & -5 TO 120 GAL.		
P-39Q-BE -20 TO -30 INCL.	1	ALLISON V-1710-85 (A) SINGLE SPEED AERO PRODUCTS 11'7" DIA. - 3BL. CONST. SPD. HYDR.	AS ABOVE	AS ABOVE	AS ABOVE	1	WING TOTALS 12-120 DROP.-BELLY 1x75 or 1x156 or 1x175 295 TOT.	2-.50 1-37MM	200 30	NOSE - FIXED PROP. - TYPE ML	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	REFERENCE AS ABOVE * P-39Q-20 HAS 3 BLADED PROPELLER: 11'7" DIA. P-39Q-30 HAS 3 BLADED PROPELLER: 11'0" DIA. P-39Q-21 & -25 HAS 3 BLADED PROPELLER: 11'7" DIA.		

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE
	GROSS WEIGHT LB.	TO CLEAR 50 FT. DIST.		LANDING SPEED MPH	GROUND-RUN		STD. ALT. FT.	MIL. POWER M.P.H.	HIGH RATE OF CLIMB FT/MIN.	MAX. CONTIN. POWER HIGH SPEED MPH	RATE OF CLIMB FT/MIN.	TIME TO CLIMB MIN.	TAKE OFF WEIGHT LB.	BOMBS CARGO PASS.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER AT 10000 FT.		MAX. CRUISE POWER AT 10000 FT.		LONG RANGE AT 10000 FT.			
		FT.	FT.		FT.	FT.										FT.	FT.	FT.	FT.	FT.	FT.	FT.	
P-39L-BE -1	7000 7400 7900 8400 9100	-	1325	84	1325	1300	7900	25000	325	300	300	12.5	9100	NONE	295	100	1.2	250	1.2	250	1.2	1075	5.6
P-39M-BE -1	7000 7400 7900 8400 9100	-	1095	84	1095	1200	7900	25000	275	1200	351	12.6											
P-39N-BE -0 TO -5 INCL.	6800 7600 8100 8700 8800	-	1230	84	1230	1200	7600	25000	325	1200	351	11.9	8750	NONE	262	100	1.2	250	1.2	250	1.2	975	5.6
P-39Q-BE -5		AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE		AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE
P-39Q-BE -10 TO -30 INCL.		AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE		AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE

## NOTES:

RANDOM P-39 MODELS MODIFIED FOR AIR/GROUND SUPPORT BY INSTALLATION OF CAMERAS, BELLY ARMOR, ETC.  
\* 1000 LB./GUN MAX. FOR GROUND STRAPPING; 300 LB./GUN NORMAL.

KITS AVAILABLE IN SERVICE TO INCREASE BUILT-IN FUEL CAPACITY OF ALL P-39Q & P-39N MODELS TO 120 GAL. PERFORMANCE WILL BE SAME AS SHOWN FOR P-39Q-10 thru -30 MODELS.

SEE REMARKS AND PRELIMINARY REPORT TO DIVISION AFTER FLIGHT CHECK

\* MILITARY POWER AVAILABLE FOR 15 MINUTES  
(A) ARRANGEMENTS ARE BEING MADE TO INSTALL CONVENTIONAL QUADRANT IN P-39Q-10 THRU P-39Q-30 ON AIRPLANE ALLOCATED TO AAF.  
P-39Q-10 THRU P-39Q-30 HAVE AN AUTOMATIC SPEED-BOOST CONTROL.

(B) RANGES SHOWN WERE ESTIMATED FOR CONVENTIONAL TYPE AIRPLANE; AIRPLANE EQUIPPED WITH AUTOMATIC SPEED-BOOST CONTROL PROBABLY WILL NOT ATTAIN MAXIMUM RANGES AS SHOWN.



**P-39**  
"AIRACOBRA"

MANUFACTURED BY BELL (Buffalo) "BE"

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.			RADIO	REMARKS & REFERENCE	
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP. MFR. TYPE	B.H.P./ALT.		S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA		B-BASIC C-COMBAT W-RECEIV. W-WAR MAX.	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY US GAL.	NO. GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE OR STATION	EXTERNAL NO. & SIZE OR CAPACITY	MAX. LOAD LB.		TYPE
			T-TAKE-OFF	M-MILITARY													
P-40E&E-1 -CU	1	ALLISON V-1710-39 SINGLE SPEED CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECT.	T 1150/5 L	S 37'4"	B 6900	1	REAR - WING FRONT - WING FUSELAGE DROPP. - BELLY	1 x 52 1 x 35 1 x 62 1 x 52 201 TOT.	6-.50 (average)	281	WING - FIXED	NONE	1-500 & 2-100 or 6-20, 1-325 1-250 1-100	700	SCR-283 or SCR-271N	TECHNICAL ORDER 01-25CP-1. (REV. 20 OCT. '43) * NO EXTERNAL WING BOMBS ON EARLY MODELS. * WITHOUT RAM.	
P-40F-CU -I TO -20 INCL.	1	PACKARD W-1650-1 SINGLE STG. - 2 SPD CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECT.	T 1300/5 L	S 37'4"	B 7000	1	REAR - WING FRONT - WING FUSELAGE DROPP. - BELLY	1 x 54 1 x 37 1 x 66 1 x 52.75 150 or 170 327 TOT.	A S	A B O V E		A S	A B O V E	AS ABOVE	SCR-271N or SCR-522A * SCR-535A or SCR-695	TECHNICAL ORDER 01-25CH-1. (20 JUNE 1943) REVISED * P-40F-1 LENGTH SAME AS P-40E. ALL SUBSEQUENT MODELS HAVE EXTENDED FUSELAGE.	
P-40K-CU -I TO -15 INCL.	1	ALLISON V-1710-73 SINGLE SPEED CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECT.	T 1325/5 L	S 37'4"	B 6950	1	AS ABOVE	AS ABOVE	A S	A B O V E		A S	A B O V E	AS ABOVE		TECHNICAL ORDER 01-25CK-1. (25 MAY 1943) REV. * P-40K-1 & -5 LENGTH SAME AS P-40E. ALL SUBSEQUENT MODELS HAVE EXTENDED FUSELAGE. * WITHOUT RAM.	
P-40L-CU -I TO -20 INCL.	1	PACKARD W-1650-1 SINGLE STG. - 2 SPD CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECT.	T 1300/5 L	S 37'4"	B 7000	1	REAR - WING FUSELAGE DROPP. - BELLY	1 x 54 1 x 66 1 x 52.75 150 or 170 327 TOT.	4-.50 (average)	201	WING - FIXED	A S	A B O V E	AS ABOVE		TECHNICAL ORDER 01-25CH-1. (REV. 20 JUNE '43) * P-40L-1 FUEL AND ARMAMENT SAME AS P-40F SERIES.	
P-40M-CU -I TO -10 INCL.	1	ALLISON V-1710-81 SINGLE SPEED CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECT.	T 1200/5 L	S 37'4"	B 6950	1	REAR - WING FRONT - WING FUSELAGE DROPP. - BELLY	1 x 54 1 x 37 1 x 66 1 x 52.75 150 or 170 327 TOT.	6-.50 (average)	281	WING - FIXED	A S	A B O V E	AS ABOVE		TECHNICAL ORDER 01-25CM-1. (REV. 25 MAY '43)	
COLUMN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE				
	GROSS WEIGHT LB.	TO CLEAR 50		LANDING SPEED MPH	GROUND-RUN		WEIGHT LB.	MIL. POWER			MAX. CONTIN. POWER	TAKE OFF WEIGHT LB.	BOMBS CARGO PASS. LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE								
		T.O. DIST.	LAND. DIST.		T.O. DIST.	LAND. DIST.		STD. ALT.	HIGH SPEED	RATE OF CLIMB					HIGH SPEED	RATE OF CLIMB	TIME TO CLIMB	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.		AT 10000 FT.			
		FT.	FT.		FT.	FT.		FT.	MPH	FT/MIN					MPH	FT/MIN	MIN.	RANGE	ENDUR.	RANGE	ENDUR.	RANGE		ENDUR.	RANGE	ENDUR.	RANGE
P-40E&E-1 -CU	7500 8100 8400 8700 9100	- 2800 3125 3600 4300	1550 1700 1750 - -	84 87 90 - -	1500 1800 1950 - -	950 1050 1100 - -	8400	25000 20000 15000 10000 5000	- 330 362 346 335	- 980 1150 2170 2100	265 300 312 313 296	520 - - - -	18.2 11.5 7.6 4.8 2.4	9100 8700 9200	NONE NONE 500	201 149 149	425 325 300	1.5 1.1 1.1	- - -	- 675 525 450	2.7 2.0 1.9	- - -	- - -	850 650 575	4.1 3.0 2.8		
P-40F-CU -I TO -20 INCL.	7500 8850 9200 9350 9550 10000	- 3700 4150 4400 4700 5000	1700 1900 2150 2550 2700 -	81 - - - -	1850 2200 2150 1950 1700 -	1050 1250 1300 1350 1400 -	8500	25000 20000 15000 10000 5000	350 364 352 340 320	1000 1100 1360 2210 2160	500 1000 1500 - -	18.5 11.6 7.6 4.5 2.4	10000 9350 9200 8850 9550	NONE NONE NONE 157 700	327 232 209 157 157	327 550 475 375 325	- 1.8 1.5 1.2 1.2	- 550 575 425 350	2.1 2.6 2.6 2.0 2.0	- - - - -	- 800 700 600 500	3.1 2.7 2.0 2.0	- - -	- - -	1500 1000 875 700 600	7.2 4.5 4.0 2.8 2.9	
P-40K-CU -I TO -15 INCL.	7500 8800 9150 9300 9500 10000	- 2950 3150 3200 3350 -	1700 1950 2000 2100 -	81 - - -	1800 1900 1950 2050 -	1300 1350 1400 -	8400	25000 20000 15000 10000 5000	- 330 362 346 320	- 1100 1650 2000 2100	265 300 312 313 296	350 - - - -	18.5 11.2 7.5 4.9 2.4	10000 9300 9150 8800 9500	NONE NONE NONE NONE 700	327 232 209 157 157	327 500 400 350 300	- 1.7 1.4 1.1 1.1	- - - -	- 900 750 600 550	3.5 3.1 2.2 2.2	- - -	- - -	1400 1000 900 700 600	6.3 5.0 4.3 3.1 3.0		
P-40L-CU -I TO -20 INCL.	SUBSTANTIALLY SAME AS P-40F						SUBSTANTIALLY SAME AS P-40F						10000 9750 9100 8600 9100	NONE NONE NONE NONE 700	327 291 195 120 120	327 - 450 275 225	- - 1.4 0.8 0.8	- - 425 300 250	1.6 1.6 1.2 1.2	- - 650 425 350	2.5 2.5 1.4 1.4	- - -	- -	1500 1200 800 500 425	7.2 5.6 3.7 2.0 2.1	P-40L-1 ONLY, SAME AS P-40F SERIES.	
P-40M-CU -I TO -10 INCL.	7500 8400 8800 9300 10000	- 2350 2650 3150 4000	1700 1850 1950 2000 -	81 85 - -	1050 1150 1600 1350 -	1050 1200 1300 1350 -	8400	25000 20000 15000 10000 5000	353 360 361 346 328	850 1500 2025 2180 2070	330 335 338 320 308	14.7 10.2 7.2 4.5 2.4	10000 9300 8800 8500 9300	NONE NONE NONE NONE 700	327 232 157 157 157	650 450 325 300 300	2.3 1.6 1.0 1.0	- 750 475 375	5.0 3.8 2.3 2.1	- -	- -	1150 1000 700 575	7.6 5.0 3.3 3.1				
18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

NOTES:

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK

# MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY.

# MILITARY POWER AVAILABLE FOR 15 MINUTES.



**P-40**  
"WARHAWK"

MANUFACTURED BY CURTISS (Buffalo) "CU"

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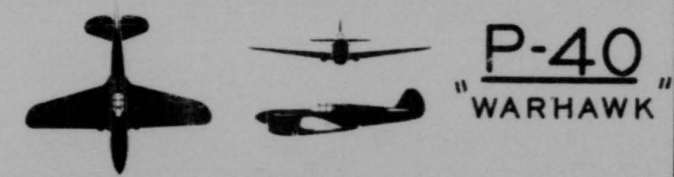
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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE	WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS			RADIO	REMARKS & REFERENCE	
	ENGINE MFG. MODEL	PROP MFG. TYPE	B.H.P./ALT.	S-SPAN		B-BASIC	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.		TYPE
			T-TAKE-OFF									L-LENGTH	C-COMBAT			
P-40N-CU -1	ALLISON V-1710-81 SINGLE SPEED CURTISS 11'0" DIA. - 3 BL. CONST. SPD. ELECT.	T 1200/S L M 1125/17300 C 1000/16400	S 37'4" L 33'4" H 12'4" T 8'2" W 236 SQ. FT.	B 6400 C 7725 W -	1	REAR - WING FUSELAGE 1 x 54 1 x 66 DROPP. - BELLY 1 x 52.75, 150 or 170 250 TOT.	4-.50	201 (average)		WING - FIXED	NONE	1-500 & 2-100 or 6-20, 1-325 1-250 1-100	500	SCR-274 or SCR-522A & SCR-695	TECHNICAL ORDER 01-250N-1. (REV. 10 OCT. '43) * PROVISIONS FOR RACKS ONLY.	
P-40N-CU -5 TO -15 INCL.	AS ABOVE	AS ABOVE	AS ABOVE	B 6700 C 8400 W -	1	REAR - WING FRONT - WING FUSELAGE 1 x 54 1 x 37 1 x 70 DROPP. - BELLY 1 x 75, 150 225 + 511 TOT.	6-.50	281 (average)		WING - FIXED	NONE	1-500 & 2-500 or 2-100 or 6-20, 1-325 1-250 1-100	1500	SCR-274 or SCR-522A & SCR-695	REFERENCE AS ABOVE * PROVISIONS FOR 2-225 GAL. FERRING TANKS or 2-500 LB. or 2-100 LB. EXTERNAL WING BOMBS IN ADDITION TO 1-500 LB. BOMBS IN PLACE OF BELLY TANK. SPACE ONLY FOR 6-20 LB. BOMBS	
P-40N-CU -20 THRU -30	ALLISON V-1710-99 SINGLE SPEED CURTISS 11'0" DIA. - 3 BL. CONST. SPD. ELECT.	AS ABOVE	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	SCR-274 or SCR-522A & SCR-695. MW-25 on some models	REFERENCE AND NOTE AS ABOVE. * FIRST 1272 AIRPLANES OF P-40N-20 SERIES DO NOT HAVE MODIFIER ON AUTOMATIC SPEED-BOOST CONTROL. REMAINDER -20 & ALL -30 INCORPORATE A MANIFOLD PRESS. MODIFIER.	
P-40N-CU -35	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	* STARTING WITH -35 AUTOMATIC SPEED BOOST CONTROL IS BEING DISCONTINUED.	
P-40N-CU -40	ALLISON V-1710-115 SINGLE SPEED CURTISS 11'0" DIA. - 3 BL. CONST. SPD. ELECT.	AS ABOVE	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE		

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND				HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE			
	GROSS WEIGHT LB.	TO CLEAR 50 FT.		LANDING SPEED MPH	GROUND-RUN		STD. ALT. FT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT LB.	BOMBS CARGO PASS. U.S. GAL.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE					
		T.O. DIST. FT.	LAND. DIST. FT.		T.O. DIST. FT.	LAND. DIST. FT.		HIGH SPEED MPH	RATE OF CLIMB FT./MIN.	HIGH SPEED MPH	RATE OF CLIMB FT./MIN.				TIME TO CLIMB MIN.	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES		ENDUR. HOURS	RANGE MILES	ENDUR. HOURS
P-40N-CU -1	7000 7725 8250 8425 8850	- 2150 2950 3100 3500	1650 1750 1750 1850 -	92 96 105 1800 1950	1000 1350 1700 1150 -	25000 20000 15000 10000 5000	332 346 348 331 313	1225 1850 2400 2525 2425	313 330 333 315 297	12.4 9.1 6.7 4.1 2.1	8850 8250 7725 8225 500	NONE NONE NONE NONE 500	292 197 122 210 122	600 380 230 210 210	2.0 1.9 0.8 0.8 0.8	- 500 290 1.1 1.20	1050 760 430 1.7 1.8	4.4 3.2 1.7 1.8 -	- - - - -	1250 850 520 2.5 2.3	6.7 3.4 2.5 2.5 2.3			
P-40N-CU -5 TO -15 INCL.	7000 8400 8900 9100 9500 11400	- 2700 3550 3800 -	1650 1850 1850 1900 -	92 109 2050 1200 -	1000 1200 1100 1250 -	25000 20000 15000 10000 5000	325 340 343 325 308	900 1550 2130 2230 2120	306 325 328 310 291	13.0 8.8 6.0 4.7 2.4	11400 9500 8900 8400 8900	NONE NONE NONE NONE 500	611 331 236 161 161	1250 675 470 320 300	4.4 2.3 1.6 1.1 1.1	- - 600 1.4 1.4	2250 1250 930 600 590	9.8 5.4 3.9 2.3 2.5	- - - - -	2800 1550 1080 750 -	14.1 7.6 5.1 3.5 -	NO RANGE DATA WITH 1500 LB. BOMBS. PERFORMANCE DATA WITH EXTERNAL WING AND BELLY RACKS.		
P-40N-CU -20 THRU -30		AS ABOVE	AS ABOVE	AS ABOVE			AS ABOVE	AS ABOVE															NO RANGE DATA AVAILABLE.	
P-40N-CU -35, -40		AS ABOVE	AS ABOVE	AS ABOVE			AS ABOVE	AS ABOVE																

NOTES:

SEE REMARKS AND PRELIMINARY SUBJECT TO REVISION AFTER FLIGHT CHECK  
\* MILITARY POWER AVAILABLE FOR 15 MINUTES



P-40  
"WARHAWK"

MANUFACTURED BY CURTISS (Buffalo) "CU"

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.		FUEL		ARMAMENT			BOMBS-CARGO-PASS		RADIO	REMARKS & REFERENCE		
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT A-REC'D-TM W-WING MAX.	COMBAT CREW	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL		MAX. LOAD LB.	TYPE		
												NO. & SIZE OR STATION	NO. & SIZE OR CAPACITY				
P-47C-RE -1 TO -5 P-47D RE & RA -1 TO -21 P-47G-CU -1 TO -18	1	PRATT-WHITNEY R-2800-21, 59, -63 TURBO CURTISS 12" DIA. - 4 BL. CONST. SPD. ELECT.	T 2000/5 L M 2000/27000 C 1625/29000	S 50'9" L 36'1" H 11'2" T 15'6" W 300 SQ. FT.	B 10700 C 13500 A 15900	1	MAIN - FUS. 1x205 AUX. - FUS. 1x100 DROPP. BELLY 1x 75 or 110 or 200 EXT. - WINGS & BELLY 2x150 & 1x 75 (SEE F) 680 TOT.	0 0 0 0	267 NOR. 125 MAX.	WING - FIXED	NONE	a 2-1000 b 3- 500 c 3- 250 d 3- 100	2500	SCR-27LN SCR-522A & SCR-535A SCR-695	TECHNICAL ORDER 01-258-1 (30 AUG, 1941) b P-47D-15 & SUBSEQUENT, P-47D-6 thru -11 & P-47G-10 AND -15 CARRY ONLY ONE SHACKLE IN BELLY POSITION. * 500 LB. BOMB MAX. ON BELLY SHACKLE DUE TO INTERFERENCE. † ONLY EARLY MODELS CARRY 200 GAL. DROPPABLE BELLY TANK. ‡ THE R-2800-21 ENGINE WILL HAVE WAR EMERGENCY RATING WHEN WATER INJECTION IS INSTALLED & REDESIGNATED (-65). § P-10 & SUBSEQUENT, CRITICAL ALT. SAME AS BELOW.		
P-47D-RE -22	1	PRATT-WHITNEY R-2800-59 TURBO HAMILTON STD. 13" DIA. - 4 BL. CONST. SPD. HYDRO.	T 2000/5 L M 2000/33000 C 2300/31000	AS ABOVE EXCEPT FOR 14'7" HEIGHT	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	REFERENCE AS ABOVE	
P-47D-RA -23	1	PRATT-WHITNEY R-2800-59 TURBO CURTISS 13" DIA. - 4 BL. CONST. SPD. ELECT.	AS ABOVE	AS ABOVE	B 10500 C 11500 A 14000 W -	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	REFERENCE AS ABOVE = FIRST MODEL EQUIPPED WITH BUBBLE CANOPY.	
P-47D-RE -25	1	PRATT-WHITNEY R-2800-59 TURBO HAMILTON STD. 13" DIA. - 4 BL. CONST. SPD. HYDRO.	AS ABOVE	AS ABOVE	B 10700 C 11500 A 14500 W -	1	MAIN - FUS. 1x270 AUX. - FUS. 1x100 DROPP. BELLY 1x 75 or 1x110 EXT. - WINGS & BELLY 2x150 & 1x110 780 TOT.		AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE
P-47D-RA -26	1	PRATT-WHITNEY R-2800-59 TURBO CURTISS 13" DIA. - 4 BL. CONST. SPD. ELECT.	AS ABOVE	AS ABOVE	B 10600 C 11500 A 14500 W -	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	REFERENCE AS ABOVE

MODEL & BLOCK NO.	TAKE OFF & LANDING						HIGH SPEED & CLIMB						RANGE & ENDURANCE										REMARKS			
	HARD SURFACE - NO WIND						AT NORMAL COMBAT WEIGHT						STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE													
	GROSS WEIGHT LB.	TO CLEAR 50' T.O. DIST. FT.	LAND. DIST. FT.	LANDING SPEED MPH	T.O. DIST. FT.	LAND. DIST. FT.	WEIGHT LB.	STD. ALT. FT.	HIGH SPEED MPH	RATE OF CLIMB FT/MIN.	MIL. POWER M.P.H.	RATE OF CLIMB FT/MIN.	MAX. CONTIN. POWER M.P.H.	HIGH SPEED MPH	RATE OF CLIMB FT/MIN.	TIME TO CLIMB MIN.	TAKE OFF WEIGHT LB.	BOMBS CARGO-PASS LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE		
																				AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 10000 FT.	
P-47C-RE -1 TO -5 P-47D RE & RA -1 TO -21 P-47G-CU -1 TO -18	11000	-	2600	98	2000	1700	30000	133	1375	120	384	800	20.0	16200	NONE	680	900	2.7	950	2.7	-	-	-	-	1725	7.5
P-47D-RE -22	12000	3100	2600	100	2000	1700	25000	121	1825	116	1750	375	15.0	15600	NONE	605	800	2.3	850	2.3	-	-	-	-	1525	6.8
P-47D-RA -23	11000	3100	2700	106	2300	1800	20000	106	2140	100	2050	365	11.0	11900	NONE	505	625	2.0	650	2.0	1100	3.9	1125	3.7	1100	4.9
P-47D-RE -25	11500	3100	2600	100	2300	1800	15000	990	2100	384	2200	350	7.2	11300	NONE	115	525	1.5	550	1.5	-	-	-	-	1095	4.1
P-47D-RA -26	11000	3100	2600	100	2300	1800	10000	372	2630	368	2300	335	4.3	11100	NONE	380	475	1.1	475	1.1	650	2.3	650	2.3	835	3.4

NOTES: (A)

R-2800-21  
(WATER INJECTION PROVISIONS;  
KITS AVAILABLE FOR INSTALLATION)

USED ON:

P-47C-RE (-1, -2 & -5)  
P-47D-RE (-1, -2, -3, -4 & -5)  
P-47D-RA (-6)  
P-47G-CU (-1, -5 & -10)RED FIGURES ARE PRELIMINARY. SUBJECT TO REVISION AFTER FLIGHT CHECK.  
\* MILITARY POWER AVAILABLE FOR 15 MINUTES.

(A) R-2800-59

(WATER INJECTION & NEW  
ELECTRICAL HARNESS)

USED ON:

P-47D-RE (-20, -21, -22 & -25)  
P-47D-RA (-20, -21, -23 & -26)

(A) R-2800-63

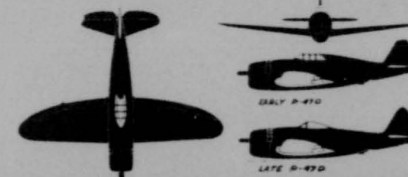
(WATER INJECTION)

USED ON:

P-47D-RE (-10, -11, -15 & -16)  
P-47D-RA (-11 & -15)  
P-47G-CU (-15 & -16)

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**P-47**  
THUNDERBOLT



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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																													
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.			RADIO	REMARKS & REFERENCE													
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA			B-BASIC C-COMBAT A-RECD-LIM W-WAR MAX	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL NO & SIZE OR STATION	EXTERNAL NO & SIZE OR CAPACITY			MAX LOAD LB.	TYPE											
																			18	19	20	21	22	23	24	25	26	27	28
P-47D-RE -27	1	PRATT-WHITNEY R-2800-99 TURBO HAMILTON STD. 13'0" DIA.-4 BL. CONST. SPD. HYDRO	T 2000/3 L M 2000/33000 W 2535/27000 C 1625/30000	S 40'9" L 36'1" H 14'7" T 15'6" W 300 sq. ft.	B 10700 C 11600 A 17500	1	MAIN - FUS. 1x270 AUX. - FUS. 1x100 DROP. BELLY 1x75 or 1x110 EXT. - WINGS & BELLY 2x150 & 1x110	6) or .50 8)	267 NON 425 MAX	WING-FIXED	NONE	2-1000 or 3- 500 or 3- 250 or 3- 100	2500	SCR-274 or SCR-522A or SCR-535A or SCR-695	TECHNICAL ORDER 01-6580-1 (30 AUG. 1944) NO WAR EMERGENCY RATING.														
P-47D-RE -28&-30 P-47D-RA -28&-35	1	PRATT-WHITNEY R-2800-99 TURBO CURTISS 13'0" DIA.-4 BL. CONST. SPD. HYDRO	AS ABOVE	AS ABOVE	B 10600 C 11500 A 17500	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	REFERENCE AS ABOVE.															
P-47M-I-RE	1	PRATT-WHITNEY R-2800-57 TURBO CURTISS 13'2" DIA.-4 BL. CONST. SPD. ELECTR.	T 2100/3 L M 2100/30000 W 2535/27000 C 1700/30000	S 40'9" L 36'1" H 14'9" T 15'6" W 300 sq. ft.	B 11100 C 12100 A 17500	1	MAIN - FUS. 1 x 270 AUX. - FUS. 1 x 100 DROP. BELLY 1 x 110	6) or .50 8)	267 NON 500 MAX	WING-FIXED	NONE	1-500 or 1-250 or 1-100	500	AS ABOVE	NO WAR EMERGENCY RATING.														
P-47N-RE -1	1	PRATT-WHITNEY R-2800-57 TURBO CURTISS 13'2" DIA.-4 BL. CONST. SPD. ELECTR.	AS ABOVE	AS ABOVE	B 11100 C 12100 A 17500	1	MAIN - FUS. 1 x 270 AUX. - FUS. 1 x 100 DROP. BELLY 1 x 110 EXT. - WINGS & BELLY 2 x 150 & 1 x 110	6) or .50 8)	267 NON 500 MAX	WING-FIXED	NONE	2-1000 or 3- 500 or 3- 325 or 3- 250 or 3- 100	2500	AS ABOVE	TECHNICAL ORDER BEING PRINTED														

MODEL & BLOCK NO.	TAKE OFF & LANDING					HIGH SPEED & CLIMB										RANGE & ENDURANCE										REMARKS
	HARD SURFACE - NO WIND					AT NORMAL COMBAT WEIGHT										STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										
	GROSS WEIGHT LB.	T.O. DIST. FT.	LAND. DIST. FT.	LANDING SPEED MPH	GROUND-RUN T.O. DIST. FT. LAND. DIST. FT.	STD. ALT. FT.	WAR EMERG. HIGH SPEED MPH	MIL. POWER RATE OF CLIMB FT/MIN	MAX. CONTIN. POWER HIGH SPEED MPH	TAKE OFF WEIGHT LB.	BOMBS CARGO PASS. LB.	TOTAL FUEL U.S. GAL.	MAX CONTINUOUS POWER AT 10000 FT. RANGE ENDUR. MILES HOURS	MAX. CRUISE POWER AT 25000 FT. RANGE ENDUR. MILES HOURS	LONG RANGE AT 10000 FT. RANGE ENDUR. MILES HOURS											
P-47D-RE -27	12000 13500 14600 15900 16500 17500	3500 3600 3700 3800 3900	2500 2600 2700 2800 2900	134 136 138 140 142	1500 1700 1800 1900 2000	30000 25000 20000 15000 10000 5000	433 436 439 442 445 448	1575 2270 2650 2870 3060 3120	1575 2270 2650 2870 3060 3120	17500 16700 15400 15100 14600	NONE NONE NONE NONE NONE	780 670 480 446 370	N O	D A T A	2100 1930	9.2 8.8	NO RANGE WITH BOMB LOAD AVAILABLE. PERFORMANCE SHOWS WITHOUT EXTERNAL RACE									
P-47D-RE -28&-30 P-47D-RA -28&-35	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	30000 25000 20000 15000 10000 5000	426 428 431 434 437 440	1475 2290 2650 2870 3060 3120	1475 2290 2650 2870 3060 3120	17400 16600 15300 15000 14500	NONE NONE NONE NONE NONE	780 670 480 446 370	N O	D A T A	2100 1930	9.2 8.8	AS ABOVE									
P-47M-I-RE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	30000 25000 20000 15000 10000 5000	470 473 476 479 482 485	1875 2500 2800 3000 3150 3200	1875 2500 2800 3000 3150 3200	15700 14700	NONE NONE	480 370	N O	D A T A	1930 1730	8.8 8.3	AS ABOVE									
P-47N-RE -1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	30000 25000 20000 15000 10000 5000	460 463 466 469 472 475	1800 2450 2750 2950 3100 3150	1800 2450 2750 2950 3100 3150	20650 19770 18700 18000 17400	NONE NONE NONE NONE NONE	1150 990 550 550 550	REFER TO PAGE 35 FOR COMBAT RADIUS			2060 1970 1870 1800 1740	11.5 11.7 8.7 8.8 8.9									

NOTES:

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**P-47 THUNDERBOLT**

MANUFACTURED BY REPUBLIC (Farmingdale) "RE"; (Evansville) "RA" & CURTISS (Buffalo) "CU"

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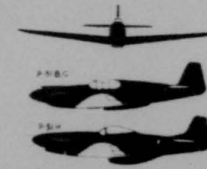
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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE	WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.			RADIO	REMARKS & REFERENCE	
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP. MFR. TYPE	B.H.P./ALT.	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA		B-BASIC C-COMBAT A-REC'D W-WAR MAX	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS PER GUN*	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.		TYPE
			T-TAKE-OFF WAR EMERGENCY M-MILITARY C-CONTINUOUS									NO. & SIZE OR STATION	NO. & SIZE OR CAPACITY			
P-51-NA -1&-2	1	ALLISON V-1710-39 SINGLE SPEED CURTISS 10'9" DIA. - 3 BL. CONST. SPD. ELECTR.	T 1150/8 L M 1150/13750 C 1000/13750	S 37' 0" L 32' 3" H 12' 2" T 11' 10" W 235 SQ. FT.	B 7050 C 8600 A-10500	1	MAIN-R. WING MAIN-L. WING RES. -L. WING	1 x 90 1 x 59 1 x 31	4-20MM	125	WING-TYPE M2	NO BOMBS CARRIED	SCR-27LN & SCR-535	TECHNICAL ORDER 01-60JB-1. (10 JAN. 1945)		
P-51A-NA -1 TO -10 INCL.	1	ALLISON V-1710-81 SINGLE SPEED CURTISS 10'9" DIA. - 3 BL. CONST. SPD. ELECTR.	T 1200/8 L M 1125/18000 C 1000/17500	S AS ABOVE	B 6850 C 8600 A-10500	1	MAIN-R. WING MAIN-L. WING EXT. - WINGS	1 x 90 1 x 90 2 x 75 or 2 x 50	2) .50 2) 350	250 350	OUTRD.-WINGS INRD. -WINGS	NONE 2-500 2-325 2-250 2-100	SCR-27LN* SCR-535* SCR-515** SCR-522 SCR-695	TECHNICAL ORDER 01-60JC-1. (30 APRIL 1945) * PROVISIONS ONLY ** SPACE PROVIDED		
P-51H-NT	1	PACARD V-1650-9 2 SPD. - 2 STAGE AEROPRODUCTS 11'1" DIA. - 3 BL. CONST. SPD. HYDRO.	T 1200/8 L M 1100/18000 C 1000/17500	S 37' 0" L 33' 4" H 11' 1" W 235 SQ. FT.	B 7040 C 9500 A-10500	1	MAIN-R. WING MAIN-L. WING FUSELAGE DROPP. - WINGS	1 x 105 1 x 100 1 x 50 2 x 75	2) .50 2) 400 2) 500	270 270 400 500	OUTRD. - WINGS CENTER - WINGS INRD. - WINGS ALTERNATE INSTALLATION OUTRD. - WINGS INRD. - WINGS	AS ABOVE PLUS THE FOLLOWING ZERO RAIL ROCKET INSTALLATIONS (5) WITH BOMBS or DROP. TANKS, or (10) WITHOUT BOMBS or DROP. TANKS	AN/ARC-3 AN/APS-13 SCR-575A SC-120C-A, S or C.	TECHNICAL ORDER 01-60JP-1 (30 JAN. 1945) * WAR EMERGENCY RATINGS WITH WATER INJECTION AND AN-F-33 FUEL.		

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND					HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT					RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE				
	GROSS WEIGHT LB.	TO CLEAR 50' FT.		LANDING SPEED MPH	GROUND-RUN		STD. ALT. FT.	HIGH SPEED MPH	RATE OF CLIMB FT/MIN.	HIGH SPEED MPH	RATE OF CLIMB FT/MIN.	TIME TO CLIMB MIN.	TAKE OFF WEIGHT LB.	BOMBS CARGO LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE					
		T.O. DIST. FT.	LAND. DIST. FT.		T.O. DIST. FT.	LAND. DIST. FT.										AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	RANGE ENDUR.		RANGE ENDUR.	RANGE ENDUR.	RANGE ENDUR.	RANGE ENDUR.
P-51-NA -1&-2	7500 8000 8500 8800 9000	- 2500 3000 3200 3400	2600 2700 2800 2900	88 91 94 97	1600 1700 1800 1900	25000 20000 15000 10000 5000	337 367 387 379 357	800 1300 1800 2300 3000	335 343 35.3 352 352	300 315 325 335 345	16.0 10.9 7.6 5.0 3.3	8800 NONE 150	NONE	150	1000	100	1.1	700	2.5	700	2.1	-	-	1000	1.3
P-51A-NA -1 TO -10 INCL.	8000 8600 9100 9600 10300	- 2050 2250 2500 2900	2150 2750 3000 3250	100 103 106 110	1550 1850 2100 2350	25000 20000 15000 10000 5000	375 390 380 360 340	1100 1650 2300 3000 3700	360 375 365 345 325	300 315 325 335 345	12.7 9.1 6.6 4.4 2.2	10600 NONE 150 500 1000	NONE 330 150 150 150	150	1135 725 425 115 410	3.7 2.4 1.3 1.3 1.3	- - - - -	2000 1250 750 750 710	7.5 4.8 2.5 2.5 2.5	- - - - -	- - - - -	2350 1525 1000 950 910	10.3 7.1 4.3 4.2 4.1	PERFORMANCE SHOWN WITH WING RACKS. REMOVAL OF WING RACKS INCREASES HIGH SPEED APPROX. 10% & RATE OF CLIMB to 1000 FT/MIN.	
P-51H-NT (WITH MILITARY POWER)						30000 25000 20000 15000 10000 5000	400 430 437 440 440	1700 2100 2650 3200 3700	420 430 437 440 440	300 315 325 335 345	11.1 8.0 6.0 4.0 2.5	10500 9500 10500 11500	NONE NONE 1000 2000	405 255 255 255	1150 725 425 115	3.1 2.1 1.3 1.3	1150 700 425 425	3.2 1.0 1.9 1.9	- - - -	- 870 - -	2.4 - - -	- - - -	1570 1075 800	6.3 4.4 3.7	NOTE: HIGH SPEED AND CLIMB SHOWN WITHOUT EXTERNAL RACKS; RACKS or ROCKET RANGERS DECREASE HIGH SPEED to 0.5 M.P.H.

NOTES:

1. ALL FIGURES ARE PRELIMINARY. SUBJECT TO REVISION AFTER FLIGHT CHECK.  
2. \* MILITARY POWER AVAILABLE FOR 15 MINUTES.



**P-51**  
"MUSTANG"

MANUFACTURED BY NORTH AMERICAN (Inglewood) "NA"

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## TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

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MODEL & BLOCK NO.	ENGINE & PROP.		SIZE	WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.			RADIO	REMARKS & REFERENCE
	ENGINE MFR.	PROP. MFR.				T-TAKE-OFF	L-LENGTH	TANK TYPE	NO. TANKS & CAPACITY	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE		
	MODEL	TYPE	NO. & ALT.	H-HEIGHT		OR LOCATION	U.S. GAL.				STATION	CARGO	LB.	TYPE	
P-51B-NA -14-5 P-51C-NT -1	PACKARD V-1650-3 2 SPEED-2 STAGE HAMILTON STD. 11"2" DIA. - 4 BL. CONST. SPD. HYDRO.		11'2" DIA. - 4 BL. CONST. SPD. HYDRO.	37' 0" 32' 3" 15' 8" 11'10" 233 sq. ft.	1	1 x 92 1 x 92 2 x 750P 2 x 110P	1 x 92 1 x 92 2 x 750P 2 x 110P	2) 2)	.50 350	250 350	OUTRD. - WINGS INRD. - WINGS	2-1000 2-500 2-325 2-250 2-100	SCR-270M SCR-522 SCR-270M SCR-535A or SCR-695	TECHNICAL ORDER 01-60JD-1. (10 OCT. 1944) KITS AVAILABLE FOR 125 GAL. FUSLAGE TANKS. INSTALL THESE MODELS WILL BE SAME AS ONES LISTED BELOW.	
P-51B-NA -7410 P-51C-NT -3	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	1	1 x 92 1 x 92 2 x 750P 2 x 110P	1 x 92 1 x 92 2 x 750P 2 x 110P	2) 2)	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	SCR-522 or SCR-270M or SCR-270M & MD-260 COMBINATION	REFERENCE AS ABOVE NOTE: LAST 550 P-51B-5 MODELS BECOME P-7 UPON ADDITION OF 125 GAL. FUSLAGE TANK. P-51C-3 ARE MODIFIED P-51C-1's.	
P-51B-NA -15 P-51C-NT -54-10	PACKARD V-1650-7 2 SPEED-2 STAGE HAMILTON STD. 11"2" DIA. - 4 BL. CONST. SPD. HYDRO.		11'2" DIA. - 4 BL. CONST. SPD. HYDRO.	AS ABOVE	1	1 x 92 1 x 92 2 x 750P 2 x 110P	1 x 92 1 x 92 2 x 750P 2 x 110P	2) 2)	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	REFERENCE AS ABOVE NOTE: P-51C-7-IT MODELS FOR RECONNAISSANCE WILL NOT CARRY 125 GAL. FUSLAGE TANK.	
P-51D-NA -5 10 -20 P-51D-NT -5 8 -20	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	1	1 x 92 1 x 92 2 x 750P 2 x 110P	1 x 92 1 x 92 2 x 750P 2 x 110P	2) 2)	270 270 400 400	270 270 400 400	OUTRD. - WINGS CENTER - WINGS INRD. - WINGS ALTERNATE INSTALLATION OUTRD. - WINGS INRD. - WINGS	SCR-270M SCR-522A & 458 DETRO or MD-260-1	TECHNICAL ORDER 01-60JB-1. (11 OCT. 1944)		
P-51K-NT -1 to -15														P-51K SAME AS ABOVE EXCEPT FOR 11'0" DIA. AEROPRODUCTS PROPELLER. PERFORMANCE FIGURES WILL BE SLIGHTLY LESS THAN SHOWN FOR P-51D AIRPLANE.	

COLUMN — 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS
	GROSS WEIGHT	TO CLEAR 50'		LANDING SPEED	GROUND-RUN		STD. ALT.	WAR EMERG. HIGH SPEED	MIL. POWER RATE OF CLIMB	MAX. CONTIN. POWER RATE OF CLIMB	TIME TO CLIMB	TAKE OFF WEIGHT	BOMBS-CARGO-PASS.	TOTAL FUEL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE				
		T.O. DIST.	LAND. DIST.		T.O. DIST.	LAND. DIST.									AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.			
		FT.	FT.		FT.	FT.									RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.	
P-51B & C (V-1650-3)	8000 9000 9500 10000 10500	- 2100 2200 2300 2400	2000 2100 2200 2300 2400	100 105 109 113 117	1200 1300 1400 1500 1600	30000 25000 20000 15000 10000	5000 4500 4000 3500 3000	140 130 127 124 121	1850 2430 2650 2775 2840	435 418 427 414 392	1500 2300 2650 2700 2900	11.0 9.7 7.0 5.7 4.6	11200 10700 10200 9200 10200	1250 1200 1150 1050 1000	1250 1200 1150 1050 1000	4.0 3.3 2.7 1.9 1.4	1180 1180 975 550 545	3.4 2.8 1.6 1.6 1.5	- - - 725 -	2.1 - - 2.1 -	2200 1680 1440 810 775	9.0 7.0 5.9 3.2 2.8	NOTE: HIGH SPEED AND CLIMB SHOWN WITHOUT BOMB RACKS. RACKS DECREASE HIGH SPEED 12 M.P.H. & RATE OF CLIMB LESS THAN 100' / MIN.
P-51B & C (V-1650-7)	8000 9000 9500 10000 10500	- 2100 2200 2300 2400	2000 2100 2200 2300 2400	100 105 109 113 117	1200 1300 1400 1500 1600	30000 25000 20000 15000 10000	5000 4500 4000 3500 3000	140 130 127 124 121	1850 2430 2650 2775 2840	435 418 427 414 392	1500 2300 2650 2700 2900	11.2 8.4 6.5 4.7 3.0	11200 10700 10200 9200 10200	1250 1200 1150 1050 1000	1250 1200 1150 1050 1000	4.0 3.3 2.7 1.9 1.4	1180 1180 975 550 545	3.4 2.8 1.6 1.6 1.5	- - - 690 -	1.8 - - 1.8 -	1780 1710 1440 860 760	5.2 4.0 3.3 3.3 3.2	AS ABOVE
P-51B & C (V-1650-3)	8000 9000 9500 10000 10500	- 2100 2200 2300 2400	2000 2100 2200 2300 2400	100 105 109 113 117	1200 1300 1400 1500 1600	30000 25000 20000 15000 10000	5000 4500 4000 3500 3000	140 130 127 124 121	1850 2430 2650 2775 2840	435 418 427 414 392	1500 2300 2650 2700 2900	12.1 9.6 7.1 5.6 4.6	11800 11300 10800 9800 10800	1250 1200 1150 1050 1000	1250 1200 1150 1050 1000	4.0 3.3 2.7 1.9 1.4	1180 1180 975 550 545	3.4 2.8 1.6 1.6 1.5	- - - 1115 -	2.8 - - 3.2 -	2400 2070 1840 1285 1180	10.8 8.5 7.7 5.1 4.9	AS ABOVE
P-51B & C (V-1650-7)	8000 9000 9500 10000 10500	- 2100 2200 2300 2400	2000 2100 2200 2300 2400	100 105 109 113 117	1200 1300 1400 1500 1600	30000 25000 20000 15000 10000	5000 4500 4000 3500 3000	140 130 127 124 121	1850 2430 2650 2775 2840	435 418 427 414 392	1500 2300 2650 2700 2900	11.8 9.0 6.9 4.9 3.1	11800 11300 10800 9800 10800	1250 1200 1150 1050 1000	1250 1200 1150 1050 1000	4.0 3.3 2.7 1.9 1.4	1180 1180 975 550 545	3.4 2.8 1.6 1.6 1.5	- - - 1050 -	2.8 - - 2.8 -	2100 2060 1850 1300 1150	6.1 5.5 4.8 5.0 4.8	AS ABOVE
P-51D (V-1650-7)	8000 9000 9500 10000 10500	- 2100 2200 2300 2400	2000 2100 2200 2300 2400	100 105 109 113 117	1200 1300 1400 1500 1600	30000 25000 20000 15000 10000	5000 4500 4000 3500 3000	140 130 127 124 121	1850 2430 2650 2775 2840	435 418 427 414 392	1500 2300 2650 2700 2900	12.6 9.5 7.3 5.8 3.3	11600 11100 10100 11100 12100	1250 1200 1150 1050 1000	1250 1200 1150 1050 1000	4.0 3.3 2.4 1.9 1.4	1050 1270 870 790 750	2.4 2.4 2.4 2.4 2.4	- - - 900 -	2.8 - - 2.8 -	2080 1830 1300 1150 1070	8.5 7.7 5.0 4.8 4.3	NOTE: HIGH SPEED AND CLIMB SHOWN WITHOUT RACKS. NEW TYPE SOME RACKS DECREASE HIGH SPEED 4 M.P.H.

NOTES:

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK.  
\* MILITARY POWER AVAILABLE FOR 15 MINUTES.

ATTENTION:

SEE PAGE OPPOSITE FOR P-51K DATA.



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"MUSTANG"

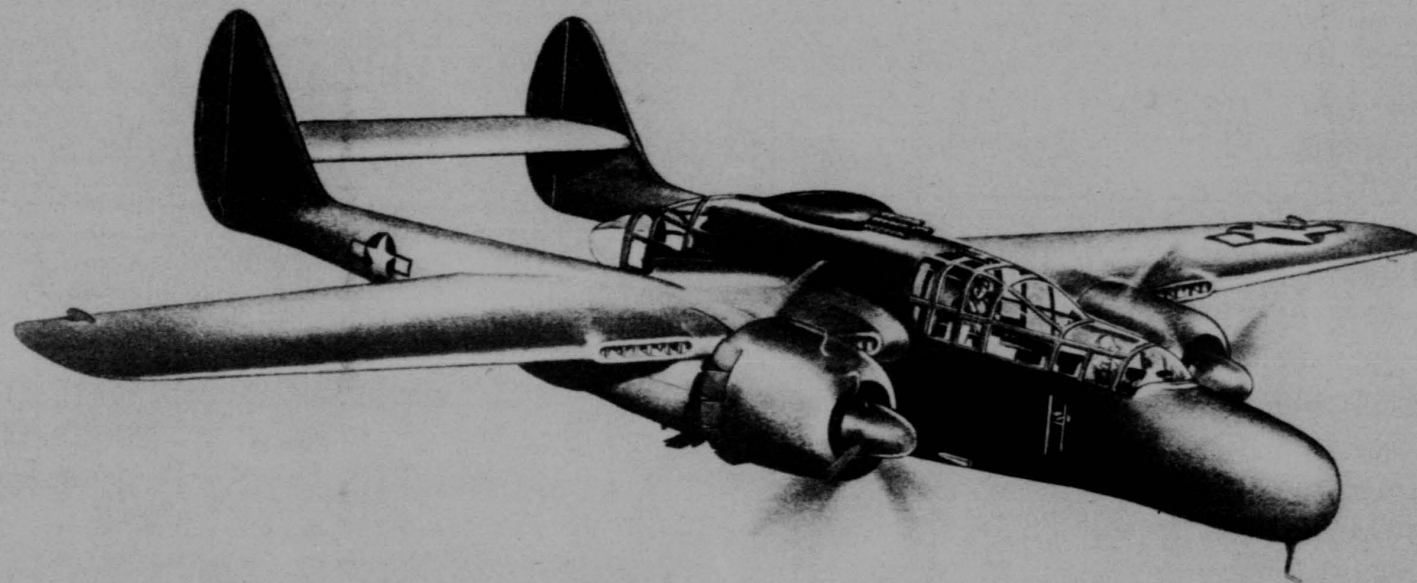
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NORTHROP P-61B-15

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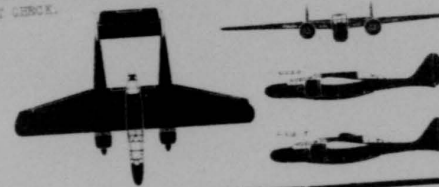
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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART													REMARKS & REFERENCE			
MODEL & BLOCK NO.	NUMBER	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	TYPE
		ENGINE MFR. MODEL	B.H.P./ALT.	S-SPAN	L-LENGTH			TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE OR STATION	EXTERNAL NO. & SIZE OR CAPACITY		
P-61A-NO -1	2	PRATT-WHITEY R-2800-10 2 SPD.-2 STG. CURTIS 12" DIA. - 4 BL. P.P. ELECTRIC	1850/8100 2000/16600 1760/16600 1600/21600 1850/8200 1850/17500 1525/22500	56'	12'11"	22300 27600	2	INBD. - WING OUTBD. - WING	2 x 115 2 x 200	4-20mm 1-.50	200 560	FORE-FUSELAGE UPPER TURRET	5 0	5 0	AS ABOVE FLAS APN-1 & APG-13	TECHNICAL ORDER 01-15FB-1 (15 OCT. 1944) UPPER TURRET ON 1st.(37) P-61A-1's ONLY. CREW OF (3) FOR MODELS WITH TOP TURRET.
P-61A-NO -5,-10 & -11 P-61B-NO -1,-2,-5,-6,-11	2	PRATT-WHITEY R-2800-65 2 SPD.-2 STG. CURTIS 12" DIA. - 4 BL. P.P. ELECTRIC	AS ABOVE PLUS THREE WAR EMERG. RAT 12650 2250/1500 2060/13000 1925/17500	AS ABOVE	AS ABOVE	22300 28000	2	INBD. - WING OUTBD. - WING EXT. - WING	2 x 115 2 x 200 2x165 or 2x110	4-20mm (See F)	200	FORE-FUSELAGE	NONE	2-1600 f 2-1000 2-500 2-325 2-100	AS ABOVE FLAS APN-1 & APG-13	TECHNICAL ORDER 01-15FB-1. (15 OCT. 1944) TWO EXTERNAL WING TANKS OF 2-1600 LB. BOMBS CAN BE CARRIED ON P-61A-11; P-61B-2,-6 & -11 ONLY. THE 310 GAL. EXTERNAL FUEL TANKS ARE PRESSURIZED.
P-61B-NO -10	2	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	22300 28000	2	INBD. - WING OUTBD. - WING EXT. - WING	2 x 115 2 x 200 2x165 or 2x110	4-20mm (See F)	200	FORE-FUSELAGE	NONE	4-1600 f 4-500 4-325 4-250 4-100	AS ABOVE EXCEPT P-61B-20 HAS ONLY (2) EXTERNAL BOMB STATIONS.	TECHNICAL ORDER 01-15FB-1. (15 OCT. 1944) P-61B-20 HAS NEW G.S. TURRET & FIRE CONTROL SYSTEM.
P-61B-NO -15,-16,-20	2	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	22300 28000	3	AS ABOVE EXCEPT P-61B-16 CARRIES ONLY (2) EXTERNAL WING TANKS.	AS ABOVE	4-20mm 1-.50	200 560	FORE-FUSELAGE UPPER TURRET	AS ABOVE EXCEPT P-61B-16 HAS ONLY (2) EXTERNAL BOMB STATIONS.	AS ABOVE	AS ABOVE	AS ABOVE

MODEL & BLOCK NO.	TAKE OFF & LANDING		HIGH SPEED & CLIMB										RANGE & ENDURANCE										REMARKS	
	HARD SURFACE - NO WIND		AT NORMAL COMBAT WEIGHT										STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE											
	GROSS WEIGHT LB.	TO CLEAR 50 FT. DIST. FT.	LAND. DIST. FT.	LANDING SPEED MPH	T.O. DIST. FT.	LAND. DIST. FT.	STD. ALT. FT.	HIGH SPEED MPH	RATE OF CLIMB FT/MIN.	MIL. POWER M.P.H.	RATE OF CLIMB FT/MIN.	HIGH SPEED MPH	RATE OF CLIMB FT/MIN.	TIME TO CLIMB MIN.	TAKE OFF WEIGHT LB.	BOMBS-CARGO-PASS. LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE		
P-61A-NO -1	21000 26000 28000 29000 30500 32500	2550 2175 2300 3050 3350	2050 1600 1900 2050 2375	1600 1525 1700 1775	27600	25000 20000 15000 10000 5000	356 356 350 333 324 312	1040 1575 1725 2025 2180 2160	360 355 343 323 305 287	11.0 10.1 7.1 4.5 2.2 0.0	27600	NONE	630	365	1.2	415	1.3	800	2.7	-	-	1010	4.5	ALL PERFORMANCE SHOWN WITHOUT DE-ICEERS.
P-61A-NO -5,-10 & -11 P-61B-NO -1,-2,-5,-6,-11	21000 26000 28000 29000 30500 32500	2550 2175 2300 3050 3350	2050 1600 1900 2050 2375	1600 1525 1700 1775	25000	25000 20000 15000 10000 5000	356 356 364 353 353 333	1025 1625 1625 2210 2550 2600 2925	360 355 343 323 305 287	11.3 10.3 7.2 4.5 2.2 0.0	25000 21000 20000 28000 30000 32000	NONE NONE NONE NONE NONE NONE	1250 960 630 630 630 620	750 560 365 365	1.2 1.8 1.2	620 415	1.8 1.3	800 2.7	-	-	-	1010 1010	4.5 4.5	AS ABOVE
P-61B-NO -10	21000 26000 28000 29000 30500 32500	2550 2175 2300 3050 3350	2050 1600 1900 2050 2375	1600 1525 1700 1775	25000	25000 20000 15000 10000 5000	356 356 364 353 353 333	1025 1625 1625 2210 2550 2600 2925	360 355 343 323 305 287	11.3 10.3 7.2 4.5 2.2 0.0	25000 21000 20000 28000 30000 32000	NONE NONE NONE NONE NONE NONE	1250 960 630 630 630 620	750 560 365 365	1.2 1.8 1.2	620 415	1.8 1.3	800 2.7	-	-	-	1350 940	5.9 4.2	AS ABOVE
P-61B-NO -15,-16,-20	21000 26000 28000 29000 30500 32500	2550 2175 2300 3050 3350	2050 1600 1900 2050 2375	1600 1525 1700 1775	29700	25000 20000 15000 10000 5000	352 366 362 352 352 330	830 1100 1760 2220 2260 2550	800 352 346 318 300 281	12.0 8.6 5.6 2.7 0.0	29700 25000 20000 28000 30000 32000	NONE NONE NONE NONE NONE NONE	1250 960 630 630 630 620	750 560 365 365	1.2 1.8 1.2	610 410	1.8 1.3	785 2.7	-	-	-	-	-	AS ABOVE

NOTES:

NO VALUES ARE PRELIMINARY; SUBJECT TO REVISIONS AFTER FLIGHT CHECK.  
\* MILITARY POWER AVAILABLE FOR 15 MINUTES.



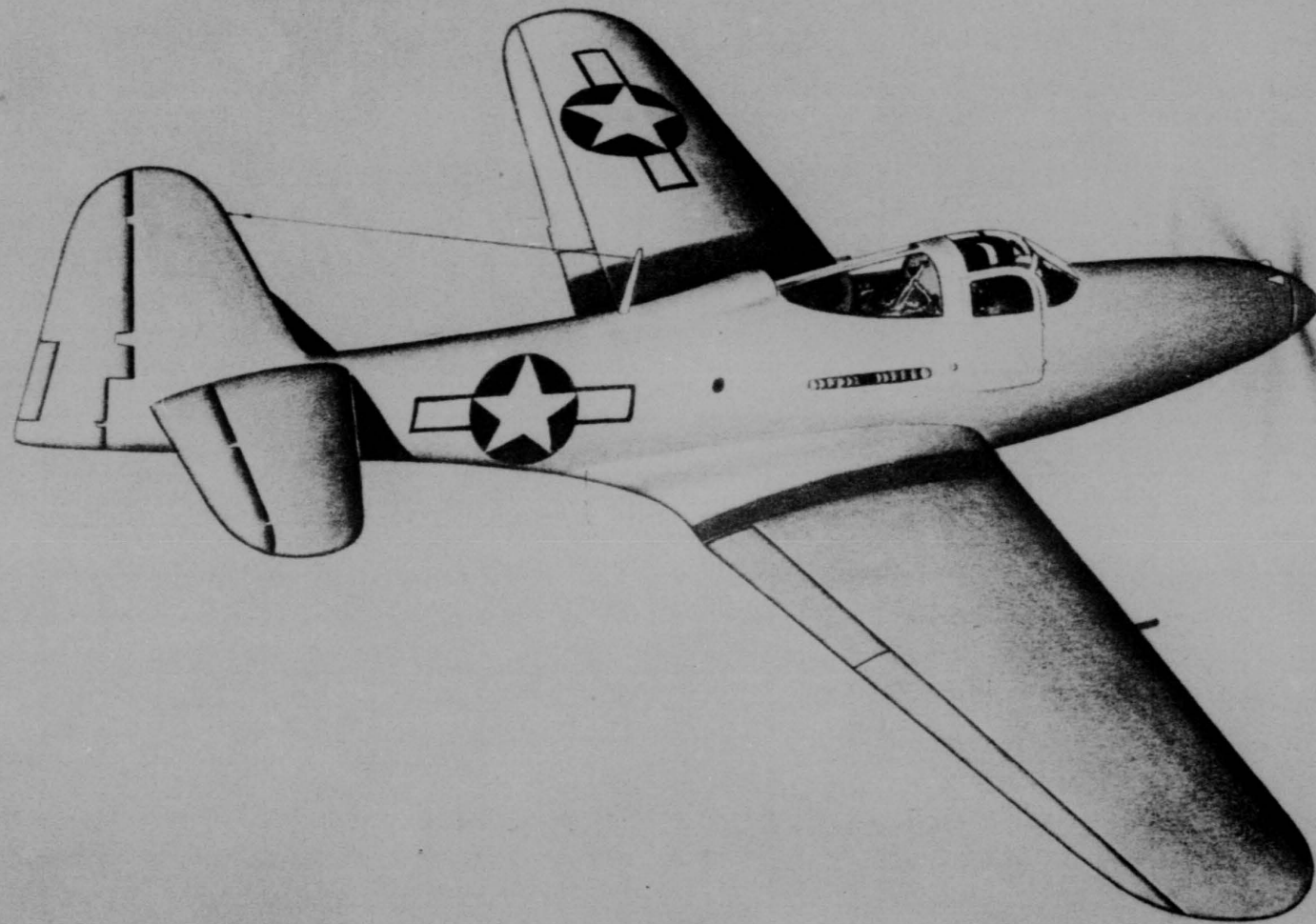
P-61  
"BLACK WIDOW"

MANUFACTURED BY NORTHERP (HAWTHORNE) "NO"  
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AS OF:  
25 JAN. 1945



BELL P-63A

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE	WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.			RADIO	REMARKS & REFERENCE	
	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING-AREA	B-BASIC C-COMBAT W-WEIGHT		TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE	EXTERNAL NO. & SIZE	MAX. LOAD LB.	RADIO TYPE		
P-63A-BE -1 TO -7 INCL.	1	ALLISON V-1710-23 2 STAGE SUPERCHARGER PROPS MFR. AEROPRODUCTS 11'7" DIA. - 48L. CONST. SPD., HYDRO.	T 1325/3 L M 1150/24200 W 1500/3 L C 1000/20000	S 36'4" L 32'8" H 12'3" T 14'7" W 216 SQ. FT.	B 6925 C 8350	1	MAIN - WINGS 2 x 65 DROPP. - BELLY 1 x 75 DROPP. - WINGS 2 x 75 (See f) 151 TOT.	1-37mm 30 2-.50 250 2-.50 200	PROP. - TYPE M4 WING - FIXED NOSE - FIXED	NONE	1-500 f 1-325 f 1-250 f 1-100 f	500 or 1500	SCR-274 BC-196 or SCR-522 METROLA 438 & SCR-695	TECHNICAL ORDER 01-110FP-1. (30 AUG. 1944) f EXTERNAL WING TANKS or BOMBS ADDED TO P-63A-6 & SUBSEQ. f WAR EMERGENCY RATING.		
P-63A-BE -8, -9, -10	1	ALLISON V-1710-23 2 STAGE SUPERCHARGER PROPS MFR. AEROPRODUCTS 11'0" DIA. - 48L. CONST. SPD., HYDRO.	AS ABOVE	AS ABOVE	AS ABOVE	1	MAIN - WINGS 2 x 65 DROPP. - BELLY 1 x 75 DROPP. - WINGS 2 x 75 (See f) 151 TOT.	1-37mm (38*) 30 2-.50 250 2-.50 200	PROP. - TYPE M4O PROP. - TYPE M4 WING - FIXED NOSE - FIXED	NONE	3-500 3-325 3-250 3-100	1500	AS ABOVE	REFERENCE AS ABOVE f TYPE M4O CARRIED ON P-63A-9 & SUBSEQUENT MODELS. f PROVISIONS FOR 1204 GAL. SELF SEALING BELLY TANK.		

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS					
	TO CLEAR 50'		LANDING SPEED	GROUND-RUN		STD. ALT.	WAR EMERG.		MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT	BOMBS	TOTAL FUEL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE								
	T.O. DIST.	LAND. DIST.		T.O. DIST.	LAND. DIST.		HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB				TIME TO CLIMB	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	ENDUR.		ENDUR.	ENDUR.	ENDUR.		
P-63A-BE -1 TO -7 INCL.	7700	1700	1800	-	1070	1110	30000	390	1680	390	1680	390	10500	NONE	451	-	-	-	-	-	-	-	-	-	2200	12.1	PERFORMANCE SHOWN WITHOUT EXTERNAL TANKS.	
	8500	2110	-	-	1320	-	25000	421	2380	421	2380	365	9500	NONE	301	800	2.5	-	-	-	-	-	-	-	1570	6.7		
	8700	2520	-	-	1520	-	20000	398	2050	398	2050	370	8850	NONE	201	500	1.6	-	-	-	-	-	-	-	1000	4.3		
	9500	2900	-	-	2000	-	15000	387	2590	372	2540	355	8350	NONE	125	300	0.9	-	-	-	-	-	-	-	650	2.7		
	10500	4500	-	-	3100	-	10000	373	3415	355	3690	335	8550	NONE	125	290	0.9	-	-	-	-	-	-	-	560	2.5		
P-63A-BE -8, -9, -10	A	B	A	B	O	V	E	30000	420	1730	420	1730	390														AS ABOVE	
							25000	410	2350	410	2350	374																
							20000	407	2060	398	2060	379																
							15000	396	2500	380	2450	350																
							10000	379	3700	352	3575	340																
							5000	361	3890	311	3500	320																

NOTES:

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK  
\* MILITARY POWER AVAILABLE FOR 15 MINUTES.



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"KINGCOBRA"

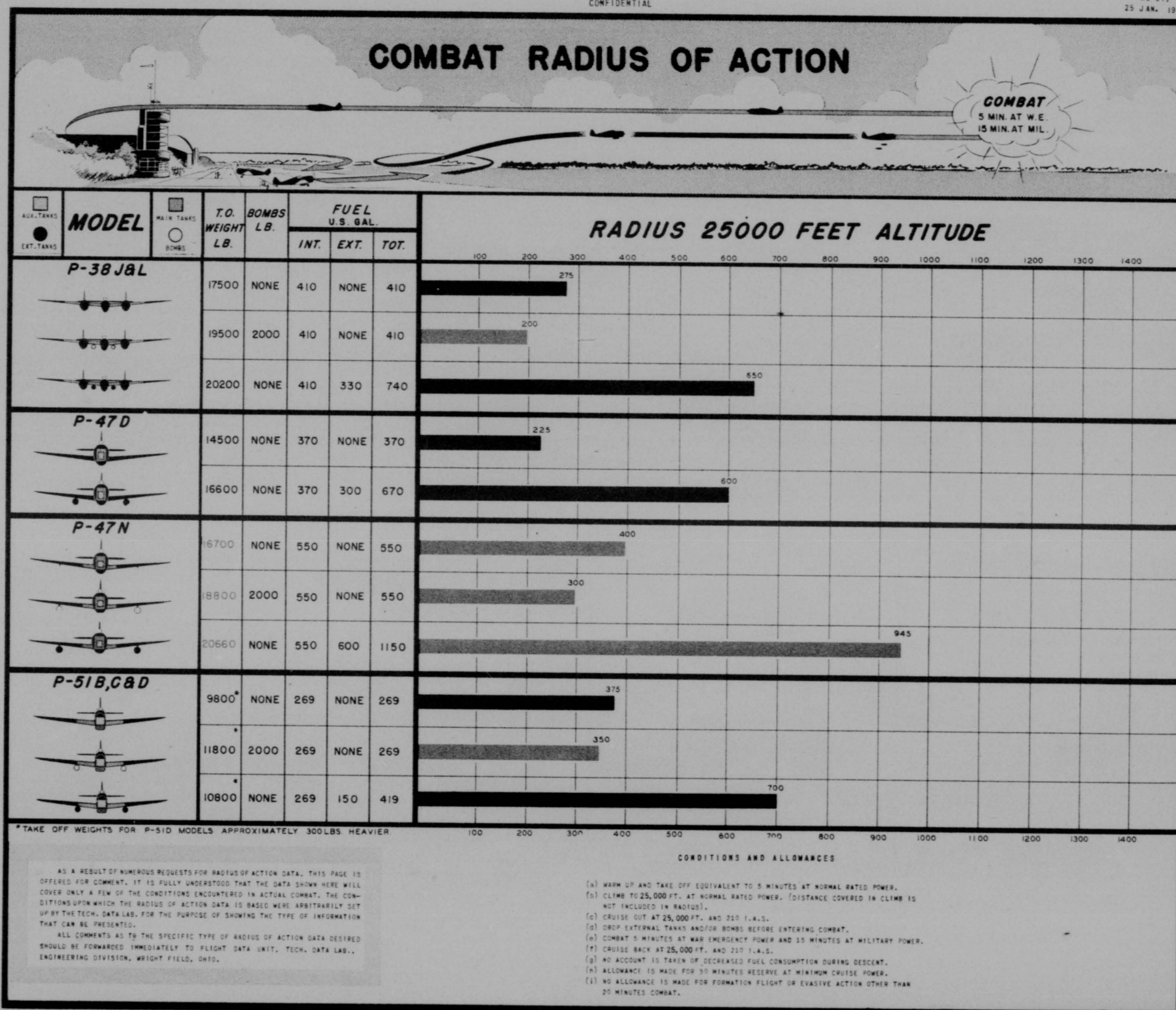
MANUFACTURED BY BELL (Buffalo) "B"

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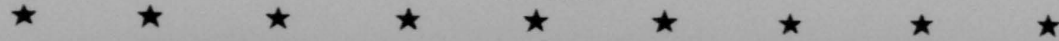


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**GLIDER AND  
TOWPLANE SECTION**

FEBRUARY-1945

RESTRICTED

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## FOREWORD

## WARNING

THESE CHARTS CONTAIN CONSERVATIVE AVERAGES FOR TACTICAL PLANNING AND ARE NOT SUITABLE FOR AERODYNAMIC ANALYSIS.

Data contained herein are not to be considered guaranteed performance nor optimum performance as established by test flight but are to be considered official "Practical" characteristics and performance to be used for planning purposes for the average pilot.

All data includes service allowances based on theater experience. Individual airplanes may vary appreciably due to age and service changes. Data printed in red are preliminary and subject to revision after flight check. Data printed in black have been derived from information obtained in flight but are not actual flight test results. For detailed planning see Technical Orders listed as references.

RANGE and ENDURANCE are based on the following assumptions:

- (a) Allowance for warm up, taxi, run up, take off, and landing. (equal to ten minutes at rated power.)
- (b) Allowances for fuel consumed in climb. Distance and time to climb are included in range and endurance.
- (c) Allowance for carrying bombs and droppable tanks entire flight.
- (d) Allowance of 10% net ideal range and endurance for miscellaneous differences in airplanes, equipment, pilot technique, atmospheric conditions other than wind, unusable fuel, weight and similar variables. (For example, range varies day and night due to fuel expansion prior to take off.)
- (e) Other than the above, no allowances for wind, assured reserve, combat, nor formation flight.

RED PRINT: Preliminary estimates or calculated data.

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## DEFINITIONS

LOADING:	Typical loadings of glider and towplane for tactical missions.
Note:	Weight and fuel quantities shown apply to all performances values to the right on the same line.
Max. tow speed:	Maximum permissible calibrated indicated air speed for towing glider at weight shown.
TAKE OFF: (To clear 50' object)	Distances representative of minimum airport requirements.
Take off speed:	Normal for average pilot. (Towplane I.A.S.)
Ground run:	Distances representative of minimum runway requirements.
CLIMB (I.A.S. for climb)	Minimum towplane indicated air speed for good control & satisfactory engine cooling.
Initial rate of climb:	Sea level rate of climb at minimum towplane indicated air speed.
Note:	For some combinations rate of climb tends to increase up to critical altitude of towplane.
Service ceiling:	Altitude at which rate of climb is 100'/min.
Time to service ceiling:	Time to climb in minutes from sea level to service ceiling based on I.A.S. for climb.
RANGE & ENDURANCE:	(See discussion under foreword)
Radius of action:	Distance glider can be towed and released with towplane having enough fuel to return to base alone.
Time out:	Time from take off to release of glider, (At recommended cruising altitude).
Time back:	Time required for towplane to return to base alone at recommended cruising speed and altitude.
Max. range & endurance:	Practical maximum range which glider can be towed under conditions set forth and corresponding time required.





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## TOWPLANE &amp; GLIDER TACTICAL PLANNING PERFORMANCE CHART

PAGE 46  
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## CARGO TOWPLANE AND CG-4A GLIDER

TOWPLANE & GLIDER COMBINATION	LOADING						TAKE OFF (WITH GLIDER ATTACHED) S.L.-HARD SURFACE-NO WIND			CLIMB (AT MINIMUM TOW SPEED)				RANGE & ENDURANCE MAXIMUM STATUTE AIR MILES-NO WIND-NO RESERVE						REMARKS	
	GLIDERS		TOWPLANE				MAX. TOW SPEED (M.P.H.)	TO CLEAR 50' OBJ. DISTANCE (FT.)	TIME OFF SPEED (I. A. S.)	GROUND RUN DISTANCE (FT.)	I. A. S. FOR CLIMB (M.P.H.)	INITIAL RATE OF CLIMB (FT./MIN.)	SERVICE CEILING (FT.)	TIME TO SERVCE CEL. (MIN.)	RADIUS OF ACTION (GLIDER RELEASED AT RADIUS)			RECOMM CRUISING ALTITUDE (FT.)	MAX. RANGE (WITH GLIDER)		
	TAKE-OFF WEIGHT (LB.)	CARGO OR PASS. (LB.)	TAKE-OFF WEIGHT (LB.)	BOMBS CARGO OR PASS. (LB.)	FUEL (US GAL)	RADIUS (MI.)									TIME OUT (HRS)	TIME BACK (HRS)	RANGE (MI.)		ENDUR. (HRS.)		
	(LB.)	(LB.)	(LB.)	(LB.)	(US GAL)	(M.P.H.)	(FT.)	(I. A. S.)	(FT.)	(M.P.H.)	(FT./MIN.)	(FT.)	(MIN.)	(MI.)	(HRS)	(FT.)	(MI.)	(HRS.)			
C-46A & (1)CG-4A	7500	3800	41000	NONE	1100	150	3400	85	2400	120	640	12000*	22	770	5.2	4.7	5000	1255	6.5		
	7500	3800	46000	5000	1100	150	4450	90	3220	120	490	12000*	30	715	5.3	4.3	5000	1115	6.2		
C-46A & (2)CG-4A	7500	3800	41000	NONE	1100	150	4675	85	3250	120	330	12000*	50	605	4.5	3.7	5000	850	6.3		
	7500	3800	46000	5000	1100	150	5750	90	4650	120	240	8700	43	555	4.1	3.4	5000	755	5.7		
C-47, 47A & 53 (STD. BLADE PROPS) & (1)CG-4A	7500	3800	26000	3000	804	150	4425	85	3000	120	275	11350	44	560	4.6	4.4	5000	830	6.8		
C-47, 47A & 53 (PADDLE BLADE PROPS) & (1)CG-4A	7500	3800	26000	3000	804	150	4625	80	3050	105	515	12000*	31	575	4.8	3.6	5000	955	7.9		
	7500	3800	29000	6000	804	150	5400	85	3250	105	410	11300	37	515	4.6	3.4	5000	870	7.3		
	7500	3800	31000	8000	804	150	5950	85	3450	105	350	10400	39	520	4.4	3.1	5000	820	6.9		
C-47, 47A & 53 (PADDLE BLADE PROPS) (1) CG-4A (TOWPLANE EQUIPPED WITH PARA-PACK BACKS)	7500	3800	26000	3000	804	150	4800	80	3200	105	465	11800	35	525	4.4	3.6	5000	870	7.3		
	7500	3800	29000	6000	804	150	6150	80	3400	105	370	10600	38	485	4.1	3.4	5000	830	6.9		
C-47, 47A & 53 (PADDLE BLADE PROPS) & (2) CG-4A	7500	3800	24200	1200	804	150	6200	80	3525	105	220	7800	46	450	4.0	2.8	2000	665	5.8		
	7500	3800	26000	3000	804	150	6900	80	3750	105	150	7300	50	435	3.8	2.7	2000	630	5.5		
	7500	3800	29000	6000	804	150	7350	80	4450	105	125	8000	57	395	3.7	3.1	2000	520	4.5		
	7500	3800	31000	8000	804	150	8850	85	5550	105	80	-	38*	370	3.4	2.9	1000	470	4.4		
C-60A & (1)CG-4A	7500	3800	18500	NONE	644	150	4000	85	2750	120	550	12000*	37	580	4.3	3.6	5000	940	6.9		
	7500	3800	21500	3000	644	150	5425	85	3675	120	320	11500	48	410	3.1	2.5	5000	560	4.2		
C-60A & (2)CG-4A	4700	1000	18500	NONE	644	150	6200	85	4100	120	350	8000	40	360	2.7	2.2	5000	540	4.5		
	7500	3800	18500	NONE	644	150	7000	85	4500	120	200	7300	42	330	2.5	2.0	5000	475	3.6		

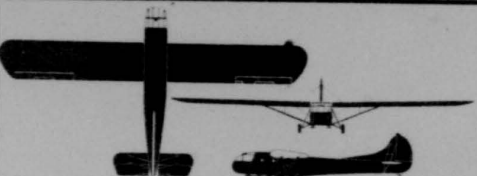
## NOTES:

- (1) REFERENCE MATERIAL FROM TECHNICAL ORDER 01-1-113 dated 15 SEPT. 1944.  
(2) ALL PERFORMANCE SHOWN WITH GLIDER TRAINING GEAR ATTACHED.

RED FIGURES ARE PRELIMINARY; SUBJECT TO  
REVISION AFTER FLIGHT CHECK.

TOW PLANE PERFORMANCE WITH CG-4A TO  
BE SAME AS WITH CG-4A

## GLIDER CHARACTERISTICS

WEIGHT		SIZE
B-BASIC		S-SPAN
C-COMBAT	L-LENGTH	
W-WAR MAX	H-HEIGHT	
	T-TREAD	
	W-WING AREA	
B- (3700 to 4500)	TYPICAL GLIDER CAPACITIES	
C- 7500	(a) TROOP CARRIER: CREW(2) & TROOPS(13).	
W- 9000	(b) CARGO CARRIER: CREW(2) & TROOPS(4) & JEEP CAR(1).	
	(c) CARGO CARRIER: CREW(2) & TROOPS(3) & 75MM. HOWITZER(1) & 75MM. AMMUNITION(18 RES.)	
	S-	83'8"
	L-	48'4"
	H-	12'7"
	T-	9'4"
	W (Tact. gear)	852 SQ.

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## TOWPLANE &amp; GLIDER TACTICAL PLANNING PERFORMANCE CHART

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AS OF:  
25 JAN. 1945

## CARGO TOWPLANE AND CG-13A GLIDER

TOWPLANE & GLIDER COMBINATION	LOADING						TAKE OFF (WITH GLIDER ATTACHED) S.L.-HARD SURFACE-NO WIND			CLIMB (AT MINIMUM TOW SPEED)				RANGE & ENDURANCE MAXIMUM STATUTE AIR MILES-NO WIND-NO RESERVE						REMARKS
	GLIDERS		TOWPLANE				TO CLEAR 50' OBJ. DISTANCE (FT.)	TAKE OFF SPEED I.A.S.	GROUND RUN DISTANCE (FT.)	I.A.S. FOR CLIMB (M.P.H.)	INITIAL RATE OF CLIMB (FT./MIN)	SERVICE CEILING (FT.)	TIME TO SERVICE CEIL. (MIN)	RADIUS OF ACTION (GLIDER RELEASED AT RADIUS)			RECOMM CRUISING ALTITUDE (FT.)	MAX. RANGE (WITH GLIDER)		
	TAKE-OFF WEIGHT (LB.)	CARGO OR PASS (LB.)	TAKE-OFF WEIGHT (LB.)	BOMBS CARGO OR PASS (LB.)	FUEL (U.S. GAL.)	MAX TOW SPEED (M.P.H.)								RADIUS (MI.)	TIME OUT (HRS.)	TIME BACK (HRS.)		RANGE (MI.)	ENDUR. (HRS.)	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
C-47, 47A & 53 PADDLE BLADE PROPS & (1) CG-13A	10000	1300	24200	1200	804	195	4500	85	3000	105	460	12000*	36	555	4.8	3.6	2000	855	7.4	* LIMITED - NO OXYGEN IN GLIDER.
	15700	7000	24200	1200	804	195	5700	90	3600	105	300	9500	41	485	4.2	3.2	2000	725	6.3	
	17700	9000	24200	1200	804	195	6350	90	3850	105	215	8500	45	460	4.0	3.0	2000	675	5.9	
C-60A & (1) CG-13A	9500	800	18000	NONE	644	-	5000	85	3350	120	400	12000*	39	420	3.1	2.6	5000	590	4.4	* LIMITED - NO OXYGEN IN GLIDER.
C-46A & (1) CG-13A	10000	1300	41000	NONE	1400	195	4730	85	3060	120	465	12000*	29	700	5.2	4.2	5000	1095	8.1	* LIMITED - NO OXYGEN IN GLIDER.
	18900	10200	41000	NONE	1400	195	5170	90	3620	120	320	12000*	45	610	4.6	3.7	5000	895	6.7	

## NOTES:

- (1) REFERENCE MATERIAL FROM TECHNICAL ORDER 01-1-113 dated JULY 1944. (A) TYPICAL GLIDER CONDITIONS
- (2) ALL PERFORMANCE SHOWN WITH GLIDER TRAINING GEAR ATTACHED.
- ATTENTION: WEIGHT OF GLIDER MAY BE LIMITED BY TOWPLANE PERFORMANCE; SEE T.O. 01-1-113 JULY 1944 FOR ALLOWABLE GLIDER WEIGHT WITH CORRESPONDING TOWPLANE.
- (a) JEEPS (2) & TROOPS (8) & CREW (2)  
 (b) JEEP (1) & TROOPS (8) & CREW (2) & 75mm. HOWITZER (1) & AMMUNITION (156 RDS.)  
 (c) TROOPS (8) & CREW (2) & 75mm. HOWITZER (2) & AMMUNITION (165 RDS.)  
 (d) TROOPS (8) & CREW (2) & STD. 105mm. HOWITZER (1) (M-2) & AMMUNITION (63 RDS.)  
 (e) TROOPS (40) & CREW (2) & AERIAL DELIVERY CONTAINERS (4)  
 (f) WEAPONS CARRIER, 6x6, 1 1/2 TON (1) & CREW (2)  
 (g) JEEP (1) & TROOPS (6) & CREW (2) & 105mm. HOWITZER (1) & AMMUNITION (27 RDS.)

## GLIDER CHARACTERISTICS

WEIGHT		SIZE
B - BASIC		S - SPAN
C - COMBAT		L - LENGTH
W - WAR MAX.	H - HEIGHT	
	T - TREAD	
	W - WING AREA	
B - 8700	TYPICAL GLIDER CAPACITIES	
C - 18900	SEE NOTE "A" AT LEFT	
W - 18900	S - 85' 7"	
	L - 54' 3"	
	H - 20' 3"	
	T - 9' 11"	
	W - 873 SQ. FT.	

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# TOWPLANE & GLIDER TACTICAL PLANNING PERFORMANCE CHART

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AS OF:  
25 JAN. 1945

## CARGO TOWPLANE AND CG-15A GLIDER

TOWPLANE & GLIDER COMBINATION	LOADING						TAKE OFF (WITH GLIDER ATTACHED) S.L.-HARD SURFACE-NO WIND			CLIMB (AT MINIMUM TOW SPEED)				RANGE & ENDURANCE MAXIMUM STATUTE AIR MILES-NO WIND-NO RESERVE						REMARKS	
	GLIDERS		TOWPLANE				MAX. TOW SPEED (M.P.H.)	TO CLEAR 50' OBJ. DISTANCE (FT.)	TAKE OFF SPEED (I.A.S.)	GROUND RUN DISTANCE (FT.)	I.A.S. FOR CLIMB (M.P.H.)	INITIAL RATE OF CLIMB (FT./MIN.)	SERVICE CEILING (FT.)	TIME TO SERVICE CEIL. (MIN.)	RADIUS OF ACTION (GLIDER RELEASED AT RADIUS)			RECOMM. CRUISING ALTITUDE (FT.)	MAX. RANGE (WITH GLIDER)		
	TAKE-OFF WEIGHT (LB.)	CARGO OR PASS. (LB.)	TAKE-OFF WEIGHT (LB.)	BOMBS CARGO OR PASS. (LB.)	FUEL (U.S. GAL.)	RADIUS									TIME OUT (HRS.)	TIME BACK (HRS.)	RANGE		ENDUR.		
	(LB.)	(LB.)	(LB.)	(LB.)	(U.S. GAL.)	(M.P.H.)	(FT.)	(I.A.S.)	(FT.)	(M.P.H.)	(FT./MIN.)	(FT.)	(MIN.)	(MI.)	(HRS.)	(HRS.)	(FT.)	(MI.)	(HRS.)		
C-47 47A & 53 PADDLE BLADE PROPS & (1) CG-15A	8000	3950	26000	3000	804	180	6850	80	3125	105	485	12000	37	555	4.4	3.8	5000	850	6.8		
	8000	3950	29000	5000	804	180	5575	85	3650	105	365	10500	45	520	4.2	3.5	5000	775	6.2		
	8000	3950	31000	8000	804	180	6175	85	4025	105	320	9500	45	490	3.9	3.3	5000	720	5.7		
C-46A & (1) CG-15A	8000	3950	41000	NONE	1100	180	3880	85	2640	120	620	12000*	23	755	5.3	4.6	5000	1215	8.4		
	8000	3950	46000	5000	1100	180	5050	90	3560	120	480	12000*	30	715	5.3	4.3	5000	1115	8.3		

COLUMN — 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

**NOTES:**

- (1) REFERENCE MATERIAL FROM TECHNICAL ORDER NOW IN PROCESS OF BEING PRINTED.
- (2) ALL PERFORMANCE SHOWN WITH GLIDER TRAINING GEAR ATTACHED.

**GLIDER CHARACTERISTICS**

**WEIGHT**

B — BASIC  
C — COMBAT  
W — WAR MAX.



**SIZE**

S — SPAN  
L — LENGTH  
H — HEIGHT  
T — TREAD  
W — WING AREA

**TYPICAL GLIDER CAPACITIES**

B — 4050  
C — 8000  
W — 9000

- (a) TROOP CARRIER: CREW(2) & TROOPS(13).
- (b) CARGO CARRIER: CREW(2) & TROOPS(4) & JEEP CAR(1).
- (c) CARGO CARRIER: CREW(2) & TROOPS(3) & 75MM. HOWITZER(1) & 75MM. AMMUNITION(16 REG.)

S — 62'3"  
L — 48'9"  
H — 12'7"  
T — -  
W — 556 SQ. FT.

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