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# TACTICAL PLANNING

*Characteristics & Performance  
Chart*

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ARMY AIR FORCES, BY THE CHIEF, ENGINEERING DIVISION,  
MATERIEL COMMAND, WRIGHT FIELD, DAYTON, OHIO

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airplane

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BOMBERS

CARGO

FIGHTERS

# TACTICAL PLANNING

## Characteristics & Performance Chart

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FOREWORD

This chart replaces the Monthly Chart of Airplane Characteristics and Performance EE-306-1, "Production". The latter was frequently misinterpreted and therefore general distribution was discontinued on directive from higher authority. This issue covers typical models now in theater operation and the list will be increased from month to month as rapidly as the data can be compiled.

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.

WARNING

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

Performance is based on the requirements of AAF Spec. 40107B, "Pilots' Handbooks, Flight Operation Instructions", which sets forth specific allowances for practical service operation. Take-off and landing distances are 125% of optimum 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, "Recommended Limit" and "War Maximum" weights are based on limiting applied positive maneuver factors of at least 2.67G & 2.00G respectively 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 of 10% net ideal range 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 allowance for wind, assured reserve, combat nor formation flight.

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 PARAGRAPH 23, A.R. 380-5, DATED 28 SEPT. 1943.

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DEFINITIONSCHARACTERISTICS

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: MAXIMUM 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: Max. cruise power is the maximum power for unlimited operation with lean mixture.

SIZE: APPROX. 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.

R: RECOMMENDED LIMIT ON GROSS WEIGHT WHICH WILL ALLOW A LIMIT APPLIED POSITIVE MANEUVER FACTOR OF AT LEAST 2.67g.

W: WAR MAX. WEIGHT FOR SPECIAL MISSIONS ONLY.

FUEL: STANDARD FUEL TANKAGE AND CAPACITIES.

ARMAMENT: RESUME' OF INFORMATION IN THE "ARMAMENT & BOMB INSTALLATIONS" (CHART EE-306A)

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 GR. WT.

RADIO: RESUME' OF TYPICAL MODELS INSTALLED.

PERFORMANCE

RED PRINT: PRELIMINARY ESTIMATES OR CALCULATED DATA

TAKE-OFF & LANDING: (At 3000' RUNWAY ALT.) VALUES ARE AT LEAST 125% OF OPTIMUM

GROSS WEIGHT: TO CLEAR 50': ARBITRARY VALUES FOR REFERENCE ONLY

GROUND RUN: DISTANCES REPRESENTATIVE OF MINIMUM AIRPORT REQUIREMENTS.

LANDING SPEED: DISTANCES REPRESENTATIVE OF MINIMUM RUNWAY REQUIREMENTS. 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)

MAX. CONTINUOUS: FOR UNLIMITED PERIODS OF OPERATION INCLUDING EMERGENCY HIGH-SPEED CRUISING.

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 I.

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.

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BOEING (SEATTLE) "BO"

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-17F-80 (-1 thru -27)	1-.30 2-.50 2-.50 2-.50	500 a 300 400 500 565	NOSE...FLEX. SIDE WAIST-FL. UPPER TURRET LOW BALL THR. TAIL...FLEX.MT.	2-2000 6-1600 6-1000 12- 500 16- 250 24- 100	NONE	9600	2550
B-17F-80 (-30 thru -50)	NONE 1) 2) 2) 2)	NONE 300 b 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL THR. TAIL...FLEX.MT.	2-2000 6-1600 6-1000 12- 500 16- 250 24- 100	2-4000 2-2000 2-1600 2-1000	6-1600 2-4000x	AS ABOVE
B-17F-80 -55 thru 1st.30(-85)	1) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL THR. TAIL...FLEX.MT.	A S	A B O V E		2550 (-55 thru -75) 3630 -50 & SUB.
B-17F-80 last 70(-85) thru -130	1) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL THR. TAIL...FLEX.MT.	AS ABOVE EXCEPT THAT EXTERNAL BOMB RACKS DELETED AFTER 15th.(-95)			3630
B-17G-80 (-1 thru -110)	1) 2) 2) 2)	300 365 500 d 400 500 565	CHEEK...FLEX. CHIN TURRET RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL THR. TAIL...FLEX.MT.	2-2000 6-1600 6-1000 12- 500 16- 250 24- 100	PROVISION FOR RACKS	9600	AS ABOVE

NOTES: a NOSE GUN DELETED ON LAST 35 (-27). d EARLY B-17G MODELS CARRY 300 RDS./GUN.  
b RADIO COMPART. GUN ADDED AFTER 16th.(-30).  
c CHEEK GUNS ADDED AT MOD. CENTER. x EXTERNAL.

DOUGLAS (LONG BEACH) "DL"

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-17F-DL -1 thru 1st.13(-10)	1-.30 2-.50 2-.50 2-.50	500 a 300 400 500 565	NOSE...FLEX. SIDE WAIST-FL. UPPER TURRET LOW BALL THR. TAIL...FLEX.MT.	2-2000 6-1600 6-1000 12- 500 16- 250 24- 100	NONE	9600	2550
B-17F-DL last 12(-10) thru -20	1) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL THR. TAIL...FLEX.MT.	AS ABOVE	PROV. FOR EXTERNAL RACKS ON -20 & SUB.	AS ABOVE	AS ABOVE
B-17F-DL -25 thru 1st.21(-35)	A S	A B O V E	AS ABOVE	PROV. FOR EXTERNAL RACKS	AS ABOVE	AS ABOVE	3630
B-17F-DL last 19(-35) thru -65	1) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL THR. TAIL...FLEX.MT.	A S	A B O V E	AS ABOVE	AS ABOVE
B-17G-DL (-1 thru -140)	1) 2) 2) 2)	300 365 500 d 400 500 565	CHEEK...FLEX. CHIN TURRET RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL THR. TAIL...FLEX.MT.	2-2000 6-1600 6-1000 12- 500 16- 250 24- 100	PROVISION FOR RACKS	9600	AS ABOVE

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

VEGA (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-17F-VE (-1 thru -10)	1-.30 CAL.(300 RDS.)	NOSE GUN	NOSE GUN	2-2000 6-1600 6-1000 12- 500 16- 250 24- 100	NONE	9600	2550
B-17F-VE (-15 & -20)	1) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL THR. TAIL...FLEX.MT.	AS ABOVE	EXTERNAL RACKS ON last 31 (-20)&SUB.	AS ABOVE	AS ABOVE
B-17F-VE (-25 & -30)	A S	A B O V E	AS ABOVE	2-4000 2-2000 2-1600 2-1000	6-1600 2-4000x	2550 (B-17F-25) 3630 (B-17F-30)	
B-17F-VE (-35 thru -50)	1) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL THR. TAIL...FLEX.MT.	AS ABOVE	NONE	9600	3630
B-17G-VE (-1 thru -90)	1) 2) 2) 2)	300 365 500 d 400 500 565	CHEEK...FLEX. CHIN TURRET RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL THR. TAIL...FLEX.MT.	AS ABOVE	PROVISION FOR RACKS	AS ABOVE	AS ABOVE

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

GENERAL NOTE:  
LATEST INVESTIGATION SHOWS THAT 6x1600 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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DATE 21 JULY 1944

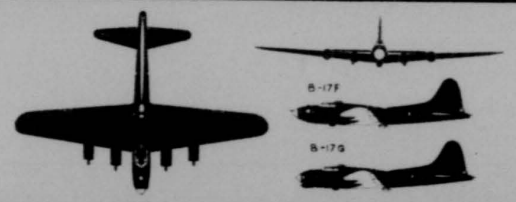
### TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

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 OR STATION	EXTERNAL NO. & SIZE OR CAPACITY	MAX. LOAD LB.		
B-17F	WRIGHT B-1620-97 TURBO HAMILTON STD. 11"7" DIA. - 3BL. P.F., HYDRA-MATIC	T 1200/5 L M 1200/27000 C 1000/30000	S 103'9" L 74'9" H 19'1" T 21'2" W 1120 SQ. FT.	B 36000 C 55000 R 56000 W 61000A	9	MAIN - WINGS BOMB BAY	6-1730 2x 410 2550 TOT	2) 2) 1) 2) 2) 2)	300 300 300 400 500 565	NOSE - FLEX. SIDE WAIST-FL. RADIO COMPART. UPPER TURRET LOW BALL TURRET TAIL - FLEX. MT.	C 2-2000 6-1600 6-1000 12- 500 16- 250 21- 100	2-1000 2-2000 2-1600 2-1000	C 6-1600 b 2-1000	17500	SEE NOTE (B)	FOR DETAILED ARMAMENT AND BOMB INSTALLATIONS SEE PAGE OPPOSITE. TECHNICAL ORDER 01-202P-1. (20 JUNE 1944) b EXTERNAL BOMBS ON SOME MODELS ONLY.
B-17F (WITH WING TIP TANKS)	AS ABOVE	AS ABOVE	AS ABOVE	B 38000 C 55000 R 56000 W 61000A	9	MAIN - WINGS WING TIPS BOMB BAY	6-1730 2x 410 3630 TOT	3) 2) 1) 2) 2) 2)	300 300 300 400 500 565	NOSE - FLEX. SIDE WAIST-FL. RADIO COMPART. UPPER TURRET LOW BALL TURRET TAIL - FLEX. MT.	A S	A B O V E	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE
B-17G	AS ABOVE	AS ABOVE (SEE *)	S 103'9" L 74'4" H 19'1" T 21'2" W 1120 SQ. FT.	B 38000 C 55000 R 56000 W 61000A	9	AS ABOVE EXCEPT PROVISIONS ONLY FOR THE BOMB BAY TANKS	6-1730 2x 410 3630 TOT	2) 2) 1) 2) 2) 2)	300 300 300 400 500 565	NOSE - FLEX. CHIN TURRET SIDE WAIST-FL. RADIO COMPART. UPPER TURRET LOW BALL TURRET TAIL - FLEX. MT.	AS ABOVE	PROV. FOR EXTERNAL RACKS	AS ABOVE	AS ABOVE	AS ABOVE	TECHNICAL ORDER 01-202P-1. (1 OCT. 1943) * LATEST B-17G'S HAVE NEW TYPE SUPERCHARGER (B-22) GIVING INCREASED ALTITUDE PERFORMANCE. * LATER MODELS HAVE 600 RIB. /DUN: EARLY MODELS 300 RIB./DUN. * LENGTH DECREASED 5" ON LATER MODELS TO 74'4".

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. 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 FT./MIN.	RATE OF CLIMB M.P.H.	HIGH SPEED FT./MIN.	RATE OF CLIMB M.P.H.				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
B-17F	42000 50000 55000 56000	- - 3950 4100	3900 4750 5200 -	90 100 101 105	- 2000 3050 3050	55000	30000 25000 20000 15000 10000 5000	298 299 288 274 263 252	400 725 850 950 1050 1125	225 274 266 255 245 236	225 150 550 675 750 4.0	56500 50500 56500	NONE NONE 6000	2550 1730 1730	1250 900 850	5.5 3.9 3.7	1100 950 900	5.6 4.0 3.8	1850 1300 1200	9.1 6.6 6.1	1950 1350 1250	8.9 6.3 5.9	2600 1800 1700	17.2 11.1 10.5	
B-17F (WITH WING TIP TANKS)	40000 50000 55000 56000 57000 61000	- - 3950 4100 4300 6100	3900 4750 5200 -	90 100 101 105	- 2000 3050 3050	55000	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	A S A B O V E	65500 59500 63500 59000 65500	NONE NONE 4000 6000 6000	3630 2810 2810 1730 2810	- 1100 1400 850 1400	6.1 6.1 3.7 6.0	1550 1550 900 1500	6.2 6.2 3.8 6.0	2050 2050 1100 2000	10.1 10.1 6.1 10.0	2150 2100 1250 -	9.9 9.9 5.9 -	2500 2700 1700 -	17.4 17.4 10.5 17.2	* MAX. FERRY RANGE MAY BE RESTRICTED BY INSUFFICIENT OIL IF ENGINE IS NOT IN BETTER THAN AVERAGE CONDITION; OIL CONSUMPTION 3 QT. TO 3 GAL./HR. DEPENDING ON TIME SINCE OVERHAUL. LONG RANGE VALUES BASED ON CONSTANT W.P.H. ** PERFORMANCE DATA ABOVE 65000 LB. NOT YET AVAILABLE. SEE NOTE (A). * PERFORMANCE DATA NOT AVAILABLE WITH TYPE B-22 SUPERCHARGER.

NOTES: (B) 24 VOLT RADIO SYSTEM

SCR-211	FREQUENCY METER	RED FIGURES ARE PRELIMINARY. SUBJECT TO REVISION AFTER FLIGHT CHECK
SCR-269G	RADIO COMPASS	* MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY
SCR-271A	COMMAND SET	(A) TWEETER REPORTS INDICATE LOADINGS IN EXCESS OF 65000 LB. ARE BEING USED WITH INCREASE IN AMMUNITION & HEAVIER BOMB-FUEL COMBINATIONS THAN LISTED UNDER "RANGE & ENDURANCE". DETAILS & RESULTANT PERFORMANCE ARE UNDER INVESTIGATION.
SCR-287A	LIAISON SET	(C) LATEST INVESTIGATION SHOWS THAT 6x1600 LB. ARMOR PIERCING BOMBS MAY BE CARRIED, BUT BOMB RAIL LOAD FACTORS AND CLEARANCES ARE REDUCED & MANEUVERING OF AIRPLANE MUST BE LIMITED ACCORDINGLY.
SCR-695	SET (or SCR-595)	
SCR-578	EMERGENCY TRANSMITTER	
RC - 32	FILTER EQUIPMENT (or RC-198)	
RC - 36	INTERPHONE AMPLIFIER	
RC - 13B	MARKER BEACON	
RC - 103	BLIND LANDING (Provisions only)	
SCR-522	COMMAND SET	



**B-17**  
"FORTRESS"

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MANUFACTURED BY BOEING - DOUGLAS - VEGA

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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-21D-00 D thru 1st. 94(-15)	1) 2) .50 2)	200 400 400	NOSE.....FLEX. UPPER TURRET TAIL TURRET	4-2000 8-1000 12- 500 12- 250 20- 100	NONE	8000	2364
B-21D-00 Last 36(-15) thru -20	1) 2) .50 1) 2)	200 400 100 400	NOSE.....FLEX. UPPER TURRET TUNNEL...FLEX. TAIL TURRET	A S	A B O V E		2364 Last 36(-15) 3614 -20 & sub.
B-21D-00 -25 thru 1st. 26(-140)	3) 2) 2) .50 1) 2)	100 250 400 100 400	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-21D-00 Last 9(-140) thru -170	3) 2) 2) .50 2) 2)	100 250 400 508 400	NOSE.....FLEX. SIDE WAIST..FL. UPPER TURRET LOW BALL TRR. TAIL TURRET	A S	A B O V E		AS ABOVE
B-21D-00 (-1 thru -299)	2) 2) 2) .50 2) 2)	400 250 <sup>b</sup> 400 508 400	NOSE TURRET SIDE WAIST..FL. UPPER TURRET LOW BALL TRR. TAIL TURRET	A S	A B O V E		AS ABOVE

NOTES: a NOT ON B-21D-25.  
b K-6 MOUNT & INCREASE TO 500 RDS./GUN STARTS ON -210 BLOCK.

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-21J-CF (-1 & -5)	3) 2) 2) .50 1) 2)	100 250 400 100 400	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-21J-CF (-10 thru -20)	A S	A B O V E		4-2000 8-1600 8-1000 12- 500 12- 250 20- 100	NONE	12800	AS ABOVE
B-21J-CF (-1 thru -60)	2) 2) 2) .50 2) 2)	400 250 400 508 400	NOSE TURRET SIDE WAIST..FL. UPPER TURRET LOW BALL TRR. TAIL TURRET	A S	A B O V E (SEE a)		AS ABOVE
B-21J-CF (-1 thru -15)	2) 2) 2) .50 2) 2)	400 500 <sup>b</sup> 400 508 400	NOSE TURRET S. WAIST-EG MT. UPPER TURRET LOW BALL TRR. TAIL TURRET	A S	A B O V E		AS ABOVE
B-21J-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-21J-20 HAS PROVISIONS FOR ONLY 250 RDS. PER GUN AT SIDE WAIST POSITION.

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-21E-DT (-1 thru -15) (DOUGLAS)	2) 2) 2) .50 2) 2)	400 250 400 508 400	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-21E-FO (-1 thru -15) (FORD)	A S	A B O V E		A S	A B O V E		AS ABOVE
B-21E-DT & FO (-20 thru -30)	2) 2) 2) .50 2) 2)	400 500 <sup>b</sup> 400 508 400	NOSE TURRET S. WAIST-EG MT. UPPER TURRET LOW BALL TRR. TAIL TURRET	A S	A B O V E		AS ABOVE
B-21E-DT & FO (-1)	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-21E-20 HAS PROVISION FOR ONLY 250 RDS. PER GUN AT SIDE WAIST POSITION.

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-21G-NT (-1 thru -15)	3) 2) 2) .50 2) 2)	230 TOT. 250 400 508 400	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-21G-NT (-1 thru -5)	2) 2) 2) .50 2) 2)	400 250 400 508 400	NOSE TURRET SIDE WAIST..FL. UPPER TURRET LOW BALL TRR. TAIL TURRET	A S	A B O V E		AS ABOVE
B-21G-NT (-10 thru -15)	A S	A B O V E		4-2000 8-1600 8-1000 12- 500 12- 250 20- 100	NONE	12800	AS ABOVE
B-21G-NT (-1 & -5)	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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CONSOLIDATED (SAN DIEGO) "CO"

CONSOLIDATED (FT. WORTH) "CF"

MODEL & BLOCK NO.	ARMAMENT			BOMBS			FUEL U.S. GAL. (MAXIMUM)
	NO GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE	EXTERNAL NO. & SIZE	MAX. LOAD LB.	
B-24D-00 thru 1st. 94(-15)	1) 2) .50 2)	200 400 400	NOSE.....FLEX. UPPER TURRET TAIL TURRET	4-2000 8-1000 12- 500 12- 250 20- 100	NONE	8000	2364
B-24D-00 1st 36(-15) thru -20	1) 2) .50 1) 2)	200 400 100 400	NOSE.....FLEX. UPPER TURRET TUNNEL...FLEX. TAIL TURRET	A S	A B O V E		- 2364 1st 36(-15) 3614 -20 & sub.
B-24D-00 1st 25 thru 1st. 25(-140)	3) 2) 2) .50 1) 2)	100 250 400 100 400	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-00 1st 9(-140) thru -170	3) 2) 2) .50 2) 2)	100 250 400 508 400	NOSE.....FLEX. SIDE WAIST..FL. UPPER TURRET LOW.BALL TRR. TAIL TURRET	A S	A B O V E		AS ABOVE
B-24J-00 1 thru -299	2) 2) .50 2) 2)	400 250 <sup>b</sup> 400 508 400	NOSE TURRET SIDE WAIST..FL. UPPER TURRET LOW.BALL TRR. TAIL TURRET	A S	A B O V E		AS ABOVE

MODEL & BLOCK NO.	ARMAMENT			BOMBS			FUEL U.S. GAL. (MAXIMUM)
	NO GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE	EXTERNAL NO. & SIZE	MAX. LOAD LB.	
B-24D-CF (-1 & -5)	3) 2) 2) .50 1) 2)	100 250 400 100 400	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 -60)	2) 2) 2) .50 2) 2)	400 250 400 508 400	NOSE TURRET SIDE WAIST..FL. UPPER TURRET LOW.BALL TRR. TAIL TURRET	A S	A B O V E (SEE *)		AS ABOVE
B-24J-CF (-1 thru -15)	2) 2) 2) .50 2) 2)	400 500 <sup>b</sup> 400 508 400	NOSE TURRET S.WAIST-E6 MT. UPPER TURRET LOW.BALL TRR. TAIL TURRET	A S	A B O V E		AS ABOVE
B-24J-CF (-401 to -)	A	S	A	B	O	V	E

NOTES: \* NOT ON B-24D-25.  
b K-6 MOUNT & INCREASE TO 500 RDS./GUN STARTS ON -210 BLOCK.

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

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

NORTH AMERICAN (DALLAS) "NT"

MODEL & BLOCK NO.	ARMAMENT			BOMBS			FUEL U.S. GAL. (MAXIMUM)
	NO GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE	EXTERNAL NO. & SIZE	MAX. LOAD LB.	
B-24E-DT thru -15 (DOUGLAS)	2) 2) 2) .50 2) 2)	400 250 400 508 400	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-24E-FO 1 thru -15 (FORD)	A S	A B O V E		A S	A B O V E		AS ABOVE
B-24E-DT & FO 1 thru -30	2) 2) 2) .50 2) 2)	400 500 <sup>b</sup> 400 508 400	NOSE TURRET S.WAIST-E6 MT. UPPER TURRET LOW.BALL TRR. TAIL TURRET	A S	A B O V E		AS ABOVE
B-24E-DT & FO 1 )	A	S	A	B	O	V	E

MODEL & BLOCK NO.	ARMAMENT			BOMBS			FUEL U.S. GAL. (MAXIMUM)
	NO GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE	EXTERNAL NO. & SIZE	MAX. LOAD LB.	
B-24G-NT thru -15	3) 2) 2) .50 2) 2)	230 TOT. 250 400 508 400	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) .50 2) 2)	400 250 400 508 400	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 & -5)	A	S	A	B	O	V	E

NOTES: \* B-10 SHACKLES FOR 8-1600 LB. BOMBS STARTS ON 2101st.FORD KNOCK-DOWN SET.  
b B-24H-20 HAS PROVISION FOR ONLY 250 RDS. PER GUN AT SIDE WAIST POSITION.

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

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AS OF  
DATE 20 JULY 1944

### 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 R-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		
B-24D	PRATT-WHITNEY R-1830-13 TURBO HAMILTON STD. 11 7/8" DIA. - 3BL. P.F. HYDROMATIC	T 1200/S L M 1200/25000 C 1100/25000	S 110'0" L 66'4" H 18'0" T 25'8" W 104.8 SQ. FT.	B 34500 C 56000 R 56000 W 64000	MAIN - WINGS	12-2364	3) 2) 2) 1) 2)	100 250 400 100 400	NOSE - FLEX. SIDE WAIST-PL. UPPER TURRET TUNNEL - FLEX. TAIL TURRET	4-2000 5-1600 6-1000 12- 500 12- 250 20- 100	NONE	12800	SEE NOTE (B)	TECHNICAL ORDER 01-58C-1 (20 JUNE 1944) REVISED.		
B-24D (WITH BOMB BAY TANKS)	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	MAIN - WINGS BOMB BAY	12-2364 2x 400 3164 TOT	3) 2) 2) 2)	100 250 400 508 400	NOSE - FLEX. SIDE WAIST-PL. UPPER TURRET LOW BALL TURRET TAIL TURRET	A S	A B O V E	AS ABOVE	AS ABOVE	A S A B O V E		
B-24D (WITH WING TIP TANKS)	AS ABOVE EXCEPT R-1830-65 ENGINE IN LIEU OF -13 ON B-24D-20-CP & B-24D-135-00 thru -170-00.	1200/S L 1200/25500 1100/27000	AS ABOVE	B 36500 C 56000 R 56000 W 64000A	MAIN - WINGS BOMB BAY WING TIPS	12-2364 2x 400 2x 225 3614 TOT	A S	A B O V E	A S	A B O V E	AS ABOVE	AS ABOVE	AS ABOVE	A S A B O V E		
B-24G,H&J	AS ABOVE EXCEPT R-1830-65 ENGINE IN LIEU OF -13 ON B-24D-5-WT & subas B-24H-5-CP & subas B-24J SERIES.	AS ABOVE (SEE e)	S 110'0" L 67'2" H 18'0" T 25'8" W 104.8 SQ. FT.	B 37500 C 56000 R 56000 W 64000A	A S A B O V E		2) 2) 2) 2)	400 250* 400 508 400	NOSE TURRET SIDE WAIST-PL. UPPER TURRET LOW BALL TURRET TAIL TURRET	A S	A B O V E	AS ABOVE	AS ABOVE	TECHNICAL ORDER 01-58E-1 (REV. 10 JUNE 1944) * LATEST B-24J MODELS HAVE NEW TYPE SUPERCHARGER (S-22) GIVING INCREASED ALTITUDE PERFORMANCE. * BEING INCREASED TO 500 RDS; SEE PAGE OPPOSITE. * FEW EXTERNAL BOMB RACKS BEING INSTALLED AT MOD. CENTERS. * (E-C) MOUNT AT SIDE WAIST POS. ON B-20 MODELS (CP, DT & FO)		

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 FT.		LANDING SPEED MPH	GROUND-RUN		STD. ALT. FT.	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. 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	
		AT 10000 FT.	AT 25000 FT.		AT 10000 FT.	AT 25000 FT.		AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.				AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.							
B-24D	40000 54000 56000 59000	- 1500 5050 6200	3300 4200 4300 -	90 103 105 -	2800 3450 3600 4450	30000 25000 20000 15000 10000 5000	278 290 277 264 254 244	900 900 1000 1150 1200 1200	297 284 272 299 299 246	700 800 950 1000 1000 44.2	11.5 30.2 22.0 15.4 9.7 4.2	53000 58000	NONE 5000	2364 3164	900 850	4.0 4.0	1000 950	3.9 3.9	1800 1750	9.0 8.9	1900 1800	8.5 8.3	2150 2300	15.2 14.4	
B-24D (WITH BOMB BAY TANKS)	40000 54000 59000 60000	- 1500 6200 6600	3300 4200 -	90 103 -	2800 3450 -	56000	A S	A B O V E				58500 53000 58000	NONE NONE 5000	3164 2364 2364	1200 900 850	5.3 4.0 4.0	1350 1000 950	5.3 3.9 3.9	2100 1800 1750	12.1 9.0 8.9	2500 1800 1800	11.5 8.5 8.3	3200 2150 2300	20.0 15.2 14.4	
B-24D (WITH WING TIP TANKS)	40000 56000 59000 60000 62000 64000	- 5050 6200 6600 7550 8750	3300 4300 -	90 105 -	2800 3550 -	56000	A S	A B O V E				63500 60500 61000 60000	NONE NONE 3000 5000	3614 3164 2814 2364	1200 1050 850	5.3 4.6 4.0	1350 1200 950	5.3 4.6 3.9	2100 2050 1750	12.1 10.6 8.9	2500 2200 1800	11.5 10.2 8.3	3500 3200 2750 2300	20.2 20.0 17.1 14.4	*MAX. FERRY RANGE MAY BE RESTRICTED BY INSUFFICIENT OIL IF ENGINE IS NOT IN BETTER THAN AVERAGE CONDITION. OIL CONSUMPTION 3 QT. TO 3 GAL./HR. DEPENDENT ON TIME SINCE OVERHAUL.
B-24G,H&J						56000	A S	A B O V E				64500 61500 62000 61000	NONE NONE 3000 5000	3614 3164 2814 2364	1150 1000 850	5.3 4.6 3.9	1350 1200 950	5.3 4.6 3.9	2200 1900 1600	11.9 10.6 8.8	2300 1950 1700	11.3 9.8 8.1	2900 2500 2100	18.2 15.6 13.0	** PERFORMANCE DATA ABOVE 65000 LB. NOT YET AVAILABLE; SEE NOTE (A).

NOTES: (B)

24 VOLT RADIO SYSTEM

SCR-211 FREQUENCY METER  
SCR-2690 RADIO COMPASS  
SCR-274N COMMAND SET  
SCR-287A LIAISON SET  
SCR-695 SET (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 (Installed in some models)

RED FIGURES ARE PREDICTORY; SUBJECT TO REVISION AFTER FLIGHT CHECK

MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY.

(A) THEATER REPORTS INDICATE LOADINGS IN EXCESS OF 65000 LB. ARE BEING USED WITH INCREASE IN AMMUNITION & HEAVIER BOMB-FUEL COMBINATIONS THAN LISTED UNDER "RANGE & ENDURANCE". DETAILS & RESULTANT PERFORMANCE ARE UNDER INVESTIGATION.



**B-24**  
"LIBERATOR"

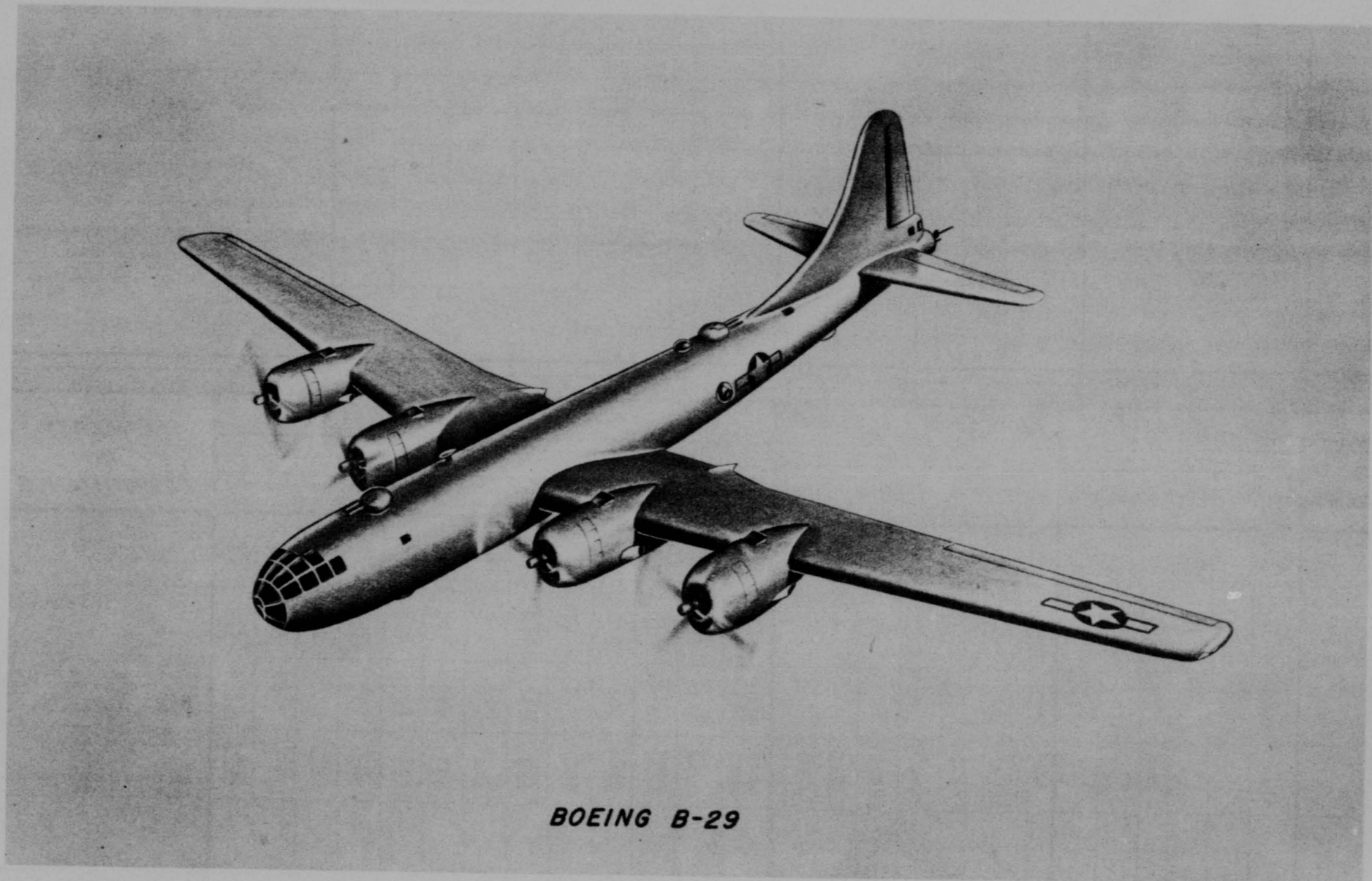
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**BOEING B-29**

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AS OF:  
DATE 21 JULY 1944

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 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 R-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.
B-32-CF	WRIGHT R-3350-23 TURBO CURTISS 16'8" DIA. - 14 BL. COMST. SPD. - ELBUT.	T 2200 / S L M 2200 / 30000 C 2000 / 32300	S 135' 0" L 82' 11" H 28' 0" T 28' 0" W 1122 SQ. FT.	B 62570 C 100000 R 102500 W 123250	5	INH. (INNER CENTER) 2 x 668 OUTER 2 x 550 INH. (INNER CENTER) 2 x 309 OUTER 2 x 316 5150 TOT.	2) 2) 2) 2)	365 400 550 1000	NOSE TURRET FRONT TOP TR. REAR TOP TR. LOW BALL TR. TAIL TURRET	L-1000 8-2000 8-1500 16-1000 40-500	NONE	20000	SCR-274N, 211, 259, 287, 522, 695 & 718. RC-36, 103 193 & 198	(MANUFACTURER'S PRELIMINARY ESTIMATES) * SPACE PROVISIONS FOR 600 RDS./GUN; NORMAL RDS. LISTED. * RADIO LISTED FOR EXP. PLANE & FIRST FEW PROD. ARTICLES.		
		T M C	S L H T W	B C R W												
		T M C	S L H T W	B C R W												
		T M C	S L H T W	B C R W												
		T M C	S L H T W	B C R W												

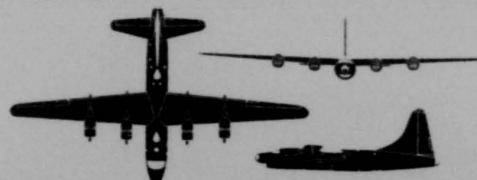
COLUMN --- 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

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 FT. DIST. FT.	LAND. DIST. FT.	LANDING SPEED MPH	T.O. DIST. FT.	LAND. DIST. FT.	WEIGHT LB.	STD. ALT. FT.	MIL. POWER HIGH SPEED M.P.H.	RATE OF CLIMB FT./MIN.	MAX. CONTIN. POWER HIGH SPEED M.P.H.	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.	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS					
B-32-CF																																			

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.



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NORTH AMERICAN (INGLEWOOD) "NA"  
(KANSAS CITY) "NC"

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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-25C-NA (-1 thru -20)	1) 1) .50	300 300	NOSE...FLEX. NOSE...FIXED	1-2000 3-1000	1-2000T 6- 325	3-1000 8- 250x	1559 (B-25C)
B-25D-NC (-1 thru -15) *	2) 2)	200 200 a	UPPER TURRET LOWER TURRET	6- 500 8- 250 12- 100	8- 250 8- 100	5000	1684 (B-25D)
B-25C-NA (-25)				1-2000 2-1600 3-1000	1-2000 T 6- 325	2-1600 8- 250x	1524 (B-25C)
B-25D-NC (-20 thru -35)			AS ABOVE EXCEPT NO LOWER TURRET ON 210(D-20), -25, -30 & -35.	6- 500 8- 250 12- 100	8- 250 8- 100	5000	1649 (B-25D)
B-25G-NA (-1 thru -10)	1-75MM 2-.50 2-.50 2-.50	21 400 200 200	NOSE CANNON M4 NOSE...FIXED UPPER TURRET LOWER TURRET	A S	A B O V E		1649
B-25H-NA (-1 thru -10)	1-75MM 4-.50 4-.50 2-.50 2-.50 2-.50	21 400 400 d 200 200 500	NOSE CAN. TURRET NOSE...FIXED NOSE...PACKAGE UPPER TURRET SIDE WAIST-FL. TAIL...POWER MT.	** 1-2000 2-1600 3-1000 6- 500 8- 250 12- 100	1-2000 T	3200	1624
B-25J-NC (-1 thru -20)	4) 1) 2) .50 2) 2)	400 300 300 200 200 600	NOSE...PACKAGE NOSE...FIXED NOSE...FIXED SIDE WAIST-FL. UPPER TURRET TAIL...POWER MT.	*** A S	A B O V E		AS ABOVE

NOTES: \*B-25C-1 & D-1 ARMAMENT SAME AS B-25C & D. e NO LOWER TURRET ON 78(G-5) & -10.  
T TORPEDO a NO LOWER TURRET ON 80(B-25D-15) ONLY. d SOME B-25H-1'S HAVE ONLY  
x EXTERNAL b NOT CARRIED ON 1st.157(B-25C-1). 2 NOSE PACKAGE GUNS.  
\*\* 2000# BOMB STATION DELETED ON 131st AIRPLANE OF BLOCK H-5 AND SUBSEQUENT.  
\*\*\* 2000# BOMB STATION DELETED ON 151st AIRPLANE OF BLOCK J-1 AND SUBSEQUENT.

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	PAGE 13
CONFIDENTIAL																	AS OF:
																	DATE 21 JULY 1944
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 W-WING AREA			B-BASIC C-COMBAT R-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
B-25C & D (NA & NC)	2	WRIGHT R-2600-13 2 SPD. SUPERCH. HAMILTON STD. 12"7" DIA. - 3BL. F.F., HYDROMATIC	T 1700/ S L 1700/ 1500 1500/ 6700 1350/ 13500	S 67'6" L 85'2" H 15'9" T 19'4" W 610 SQ. FT.	B 20500 C 29500 R 33500 W 35000 B	5	MAIN - WINGS 2 x 151 1 x 585 MAIN - WINGS 2 x 151 1 x 585 BOMB BAY 1 x 125 1 x 585 1255 TOT.	2 x 151 2 x 151 1 x 585	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	3000	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 SERIES IS 53'	
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 R 33500 W 35000 B	5	MAIN - WINGS 2 x 151 1 x 585 MAIN - WINGS 2 x 151 1 x 585 AUX. - WINGS 6 - 304 SIDE WAIST 1 x 125 1 x 585 BOMB BAY 1 x 125 1 x 585 1255 TOT.	2 x 151 2 x 151 6 - 304 1 x 125 1 x 585	1) 300 1) 300 2) .50 2) 350	300 300 400 350	NOSE - FLEX. NOSE - FIXED UPPER TURRET LOWER TURRET (On some models)	1-2000 b 2-1500 3-1000 6- 325 8- 250 8- 100	(SEE C) 1-2000 T 2-1600 x 8- 250	AS ABOVE	AS ABOVE	TECHNICAL ORDER SAME AS ABOVE a-B-25C-1 & D-1 ARMAMENT SAME AS B-25C & D. b-CARRIED ON LATER MODELS ONLY. f-B-25C-25 & D-20 THROUGH -35 FUEL CAPACITY SAME AS BELOW: 1-125 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 R 33500 W 35000 B	4	MAIN - WINGS 2 x 151 1 x 585 MAIN - WINGS 2 x 151 1 x 585 AUX. - WINGS 6 - 304 SIDE WAIST 1 x 125 1 x 585 BOMB BAY 1 x 125 1 x 585 1255 TOT.	2 x 151 2 x 151 6 - 304 1 x 125 1 x 585	1-75MM 2) .50 2) 350	21 400 400 350	NOSE CANNON-MT. NOSE - FIXED UPPER TURRET LOWER TURRET (On some models)	A S	A B O V E	AS ABOVE	AS ABOVE	TECHNICAL ORDER 01-600G-1. (REV. 10 DEC. 1943) f-BOMB BAY FUEL CAPACITY CONSISTS OF 1-215 GAL. SELF SEALING REMOVABLE TANK & 1-335 GAL. METAL DROPPABLE TANK: 1-585 GAL. METAL TANK IS INTERCHANGEABLE.	
B-25H-NA -1 TO -10 INCL.	2	WRIGHT R-2600-13 or -29 2 SPD. SUPERCH. HAMILTON STD. 12"7" DIA. - 3BL. F.F., HYDROMATIC	AS ABOVE	AS ABOVE	B 22000 C 33500 R 33500 W 35000 B	5	MAIN - WINGS 2 x 151 1 x 585 MAIN - WINGS 2 x 151 1 x 585 AUX. - WINGS 6 - 304 SIDE WAIST 1 x 125 1 x 585 BOMB BAY 1 x 125 1 x 585 1255 TOT.	2 x 151 2 x 151 6 - 304 1 x 125 1 x 585	1-75MM 4) .50 2) 350	21 400 400 200 400 600	NOSE CANNON-MT. NOSE - FIXED NOSE - PACKAGE SIDE WAIST-FL. UPPER TURRET LOWER TURRET TAIL-POWER MT.	AS ABOVE (SEE C) 1-2000 T	3200	SCR-271R SCR-269G SCR-287 SCR-522 SCR-578 SCR-695 RC - 36	AS ABOVE	TECHNICAL ORDER 01-600H-1. (15 OCT. 1943) a-BOMB B-25H-1's CARRY ONLY 2 NOSE PACKAGE GUNS. f-BOMB BAY FUEL NOTE SAME AS FOR B-25G SHOWN ABOVE. **2000# BOMB STATION DELETED ON 151st AIRPLANE OF BLOCK H-5 AND SUBSEQUENT.	
B-25J-NC -1, -5	2	AS ABOVE	AS ABOVE	AS ABOVE	B 21100 C 33500 R 33500 W 35000 B	6	AS ABOVE	AS ABOVE	1) 300 2) 300 4) .50 2) 350	300 300 400 200 400 600	NOSE - FLEX. NOSE - FIXED NOSE - PACKAGE SIDE WAIST-FL. UPPER TURRET TAIL-POWER MT.	A S	A B O V E	SCR-271R SCR-269G SCR-287 SCR-522 SCR-578 SCR-695 RC - 105 RC - 36	AS ABOVE	TECHNICAL ORDER 01-600J-1. (20 DEC. 1943) **2000# BOMB STATION DELETED ON 151st AIRPLANE OF BLOCK J-1 AND SUBSEQUENT.	

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 FT. DIST.	LAND. DIST.	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	AT 10000 FT.		AT 25000 FT.		AT 10000 FT.		AT 25000 FT.		AT 10000 FT.		AT 25000 FT.		
B-25C & D (NA & NC)	25000	-	3300	99	1950	20000	267	-	262	100	32.1	30000	NONE	1255	950	3.9	-	-	1475	7.0	-	-	1850	10.3				
B-25C-NA -1 TO -25 INCL. B-25D-NC -1 TO -35 INCL.	32000	4700	3900	112	3700	20000	265	-	260	-	21.3	31000	NONE	1599	-	-	-	-	-	-	-	-	2700	11.8				
B-25G-NA -1 TO -10 INCL.	32000	4700	3950	112	3700	20000	265	-	277	350	21.3	31000	NONE	1624	-	-	-	-	-	-	-	-	2125	12.8				
B-25H-NA -1 TO -10 INCL.	32000	4700	3950	112	3700	20000	265	-	275	100	27.0	35000	NONE	1624	1250	5.1	-	-	2200	10.3	-	-	2150	12.9				
B-25J-NC -1, -5	32000	4700	3950	112	3700	20000	265	-	275	300	13.8	35000	2000	1189	900	3.6	-	-	1575	7.3	-	-	1800	9.1				

NOTES: (A) 24 VOLT RADIO SYSTEM  
 SCR-211 FREQUENCY METER  
 SCR-269G RADIO COMPASS  
 SCR-271R 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-196)  
 RC - 13B HARRIER BEACON  
 RC - 103 BLIND LANDING (Provisions only)  
 RC - 196 CONTACTOR UNIT  
 RC - 36 INTERPHONE AMPLIFIER

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECKS  
 (B) MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY.  
 (C) TORPEDOES BEING USED IN LIMITED QUANTITIES ONLY.

MANUFACTURED BY NORTH AMERICAN (Inglewood) "NA" & NORTH AMERICAN (Kansas City) "AC"

**B-25 "MITCHELL"**

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MODEL & BLOCK-NO.	ARMAMENT			BOMBS		MAX. LOAD LB. U.S. GAL. (MAXIMUM)	
	NO GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL		
				NO & SIZE	NO & SIZE		
B-26B-MA (B thru -4)	1-.30 1-.30 2-.50 2-.50	600 600 1500 100	NOSE***FLEX. TUNNEL**FLEX. TAIL**FLEX.MT. UPPER TURRET	2-2000 2-1600 4-1000 8- 500 15- 250 30- 100	1-2000 (TORPEDO)	2-1600 1-2000T 5200	1162
B-26B-MA (-10 thru -20) B-26C-MD -5 thru 1st. 75(-30)	1) 1) 1) .50 2) 2) 2) 2) 2) 2) 2) 2)	200 270 240 250 200 800 400	NOSE***FLEX. NOSE***FLEX. SIDE WAIST-FL. U.FUS.-PACKAGE L.FUS.-PACKAGE *TAIL-POWER MT. UPPER TURRET	A S	A B O V E		1962
B-26B-MA -25 thru 1st. 150 (-50) B-26C-MD Last 125(-30)		A S	A B O V E	2-2000 2-1600 4-1000 6- 500 10- 250 20- 100	AS ABOVE	AS ABOVE	1162
B-26B-MA Last 50(-50)&-55 B-26C-MD -17 thru -6 B-26C-MD -15	1) 2) 2) 2) 2) 2)	270 250 250 200 900 400	NOSE***FLEX. SIDE WAIST-FL. U.FUS.-PACKAGE L.FUS.-PACKAGE TAIL-POWER MT. UPPER TURRET	AS ABOVE EXCEPT THAT B-26B-1, -2, & -6 HAVE THE TORPEDO DELAYED.			AS ABOVE
111(B-10):AT-23A 1st.109(B-15) " 3(C-25): AT-23B 71(C-30): AT-23B (C-35A-10)AT-23B 1st.26(C-15) "			ALL GUNS & ARMAMENT ITEMS REMOVED FROM THESE MODELS: MODIFIED FOR TOW TARGET USE & DESIGNATED AT-23A & B.	N	O	N	E 1962 3(C-25) 1162 (Balance)
NOTES: T-TORPEDO * SIDE WAIST GUNS ADDED TO LAST 111(-1) ONLY. * B-26B-10, -15 & C-5 HAVE SAME TAIL GUN INSTALLATION & RDG./GUN AS B-26B-1.							

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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 R-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		
																NUMBER
B-26B-MA B-2,-3 & -4	PRATT-WHITEY R-2800-5e 2 SPD. SUPERCH. CURTISS 13'6" DIA. - 4 BL. F.P. ELECTRIC	T 1850/S L M 1850/2700 C 1500/14000 1500/7800 1450/13000	S 65'0" L 58'3" H 19'10" T 22'0" W 602 sq. ft.	B 23500 C 35000 R 36500 W 36500	6	MAIN - WINGS AUX. - WINGS BOMB BAY - (FORE)	2 x 360 2 x 121 2 x 250 1462 TOT	1-.30 1-.30 2-.50 2-.50	600 600 1500 400	NOSE - FLEX. TUNNEL - FLEX. TAIL - FLEX. MT. UPPER TURRET SIDE WAIST-FL.	2-2000 2-1500 4-1000 8-500 16-250 30-100	1-2000 (TORPEDO)	2-1600 1-2000T 5200 (B)	SEE (A)	TECHNICAL ORDER 01-355A-1. (5 MARCH 1943) a SIDE WAIST GUNS ADDED TO LAST 111 (-4) ONLY. b B-26B-MA HAS -5 ENGINE; B-26B-2-MA HAS -41 ENGINE & B-26B-3 & -4 HAS -43 ENGINE.	
B-26B-MA -10 TO -20 INCL B-26C-MO -5 TO -25 INCL	PRATT-WHITEY R-2800-43 2 SPD. SUPERCH. CURTISS 13'6" DIA. - 4 BL. F.P. ELECTRIC	T 1920/S L M 1920/3200 C 1550/7100 1360/11600	S 71'0" L 58'3" H 21'6" T 22'0" W 659 sq. ft.	B 25300 C 37000 R 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) 2) 2) 2)	270 270 250 200 400 300	NOSE - FIXED 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 O V E	AS ABOVE	TECHNICAL ORDER 01-355B-1. (25 DEC. 1943) a B-26B-10,-15 & C-5 HAVE FLEX. TAIL MOUNT INSTEAD OF POWER MOUNT. & HDG. GUN SAME AS B-26B-2-MA. b BASIC WEIGHT OF B-26B-15 IS 21,500 LB.		
B-26B-MA -25 TO 55 INCL B-26C-MO -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 1462 TOT	A S A B O V E	A S A B O V E	SEE (a)	2-2000 2-1500 4-1000 6-500 810-250 820-100	1-2000 (TORPEDO)	2-1600 1-2000T 5200 (B)	NOTE (A) plus RC-103 & SCR-522	REFERENCE AS ABOVE a-FIXED NOSE GUN DELETED ON LATEST B-26B's and B-26C-45. b-ALL MODELS EXCEPT 1st. 75 (B-26C-30) CARRY LESS BOMBS DUE TO DELETION OF 2 REAR BOMB BAYS. c RC-103 & SCR-522 ADDED TO LATEST MODELS ONLY.	
B-26F-MA -1,-2 & -6 B-26G-MA -1 (SEE m)	AS ABOVE	AS ABOVE	S 71'0" L 56'1" H 20'4" T 22'0" W 658 sq. ft.	B 25300 C 37000 R 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)	270 250 250 200 400 300	NOSE - FLEX. SIDE WAIST-FL. U.FUS. - PACKAGE L.FUS. - PACKAGE UPPER TURRET TAIL-POWER MT.	A S A B O V E	4000	AS ABOVE	TECHNICAL ORDER 01-355C-1. (15 FEB. 1944) m B-26G DESIGNATION IS USED FOR AIRPLANES WITH AN FITTINGS; NO OTHER MAJOR CHANGES.		

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'		GROUND-RUN		WEIGHT LB.	STD. ALT. FT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT LB.	BOMBS CARGO 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.	LANDING SPEED MPH	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
B-26B-MA B-2,-3 & -4	24000 28000 32000 35000 36000	- - 3250 4000 4300	2300 2900 3500 - -	110 120 130 - -	1600 2100 2350 2600 -	35000	20000 15000 10000 5000 S L	270 298 291 294 281	300 750 1000 1150 1500	265 394 388 383 365	200 14.0 900 7.7 3.4 0.0	34000 35500 36000 35000	NONE 1500 2000T 4000	1162 1162 1162 962 962	950 900 -	3.5 3.5 -	- -	- -	- -	- -	- -	- -	2000 1950 1900 1250	11.0 10.7 10.5 7.0	
B-26B-MA -10 TO -20 INCL B-26C-MO -5 TO -25 INCL	24000 28000 32000 35000 36000	- 2400 3050 3900 4400 6100	1950 2200 2400 - -	134 135 136 - -	900 1600 1200 - -	37000	20000 15000 10000 5000 S L	282 278 285 270	- - 1000 1300	273 371 269 250	300 550 1.1 0.0	38200 37800 38200 36300 38100	NONE 1500 2000T 4000	1162 1162 1162 962 962	1125 1000 1000 962 650	5.7 4.2 4.2 -	- -	- -	2475 1725 1700	11.7 8.5 8.5	- -	- -	2600 1825 1800 1075	14.7 10.2 10.2 6.0	* MUST BE STRIPPED TO 38200 LB.
B-26B-MA -25 TO -55 INCL B-26C-MO -30 & -45 INCL	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	37000	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	37800 34200 36300 38100	NONE 1500 2000T 4000	1162 962 962 962	1000 650 -	4.2 2.6 -	- -	- -	1725 1125 1050	8.5 5.4 5.4	- -	- -	1825 1250 1075	10.2 7.0 6.0	
B-26F-MA -1,-2 & -6 B-26G-MA -1	28000 32000 35000 36000 38200	2350 3100 3650 4200 5350	2200 2400 2600 - 2750	135 135 136 - -	1500 2050 1300 1350 1100	37000	25000 20000 15000 10000 5000 S L	280 273 282 275	- - 1100 1100	271 268 267 257	350 560 1.6 0.0	38000 36200 34200 38200	NONE 1500 1000 4000	1050 875 875 675	4.3 3.6 2.7 2.8	- -	- -	1775 1500 1175 1100	8.8 7.2 5.6 5.6	- -	- -	1875 1500 1300 1125	10.6 9.0 7.3 6.3	* MUST BE STRIPPED TO 38200 LB.	

NOTES: (A)

24 VOLT RADIO SYSTEM

SCR-281 FREQUENCY METER  
SCR-2690 RADIO COMPASS  
SCR-271N 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-19d)  
RC - 36 INTERPHONE AMPLIFIER  
RC - 43B 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 38200 LB. BY FLYING CHARACTERISTICS.

GENERAL NOTES: SOME MODELS MODIFIED FOR TOW TARGET USE BY REMOVAL OF GUNS AND ARMAMENT ITEMS; FOR DETAILS SEE PAGE OPPOSITE. THESE MODELS HAVE BEEN REDESIGNATED AT-25A &amp; B.



**B-26**  
"MARAUDER"

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

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AS OF:  
DATE 21 JULY 1944

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 W-WAR MAX	B-BASIC C-COMBAT R-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	EXTERNAL NO. & SIZE			MAX. LOAD LB.	TYPE
A-20B-DL	WRIGHT B-2600-11 2 SPD. SUPERCH. HAMILTON STD. 11 1/2" DIA. - 3 BL. F.F. HYDRA-MATIC	T 1600/3 L M 1600/3000 C 1350/5500 1275/12000	S 61' 1/4" L 48' 0" H 18' 1" T 17' W 165 sq. ft.	B 15600 C 22000 R 25200 W 27000A	4	MAIN - WINGS FUSELAGE BOMB BAY	4 - 390 1 x 100 2 - 590 1080 TOT.	1-.30 2-.30 1-.50 2-.50	500 1000 200	TUNNEL - FLEX. L. AR. NAGELLES REAR COCKPIT NOSE - FIXED	1-1000 1-500 4-250 10-100	(SEE C) 1-2000T 2-500 4-250 4-100	1000	SCR-274N SCR-535 FMS-26C RC-51	TECHNICAL ORDER 01-LOAD-1. (1 DEC. 1942) * SOME MODELS ONLY.		
A-20C-DO -1 TO -10 INCL	AS ABOVE EXCEPT FOR CHANGE TO B-2600-23 ENGINE	T 1600/3 L M 1600/1000 C 1350/5000 1275/11500	S 61' 1/4" L 47' 1/4" H 18' 1" T 17' W 165 sq. ft.	B 16300 C 23000 R 25200 W 27000A	4	INBD. WINGS OUTBD. WINGS FUS. (BOMB BAY) BOMB BAY (SEE B)	2 x 136 2 x 64 2 x 70 4 - 680 1080 TOT.	1) .30 2) .30 4) .50	500	TUNNEL - FLEX. REAR COCKPIT NOSE - FIXED	4-500 4-250 4-100	(SEE C) 1-2000 T	2000	AS ABOVE	TECHNICAL ORDER 01-LOAD-1. (10 FEB. 1942) b NO TORPEDO PROVISIONS ON A-20C-1. a FOR ALTERNATE INSTALLATIONS SEE EE-306-A.		
A-20G-DO -1 TO -15 INCL	AS ABOVE	AS ABOVE	S 61' 1/4" L 48' 0" H 17' 7" T 17' W 165 sq. ft.	B 17200 C 24000 R 25200 W 27000A	3	AS ABOVE	AS ABOVE	1 (.30 or .50) 1-.50 6-.50	500 500 350	TUNNEL - FLEX. REAR COCKPIT NOSE - FIXED	4-500 4-250 4-100	(SEE C) 1-2000 T	2000	SCR-274N SCR-535A SCR-535F MN-26Y RC-36 RC-198 SCR-522	TECHNICAL ORDER 01-40 (5 APRIL 1944) a 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	AS ABOVE	AS ABOVE	AS ABOVE	B 17700 C 26000 R 26000 W 27000A	3	INBD. WINGS OUTBD. WINGS FUS. (BOMB BAY) RECP. - EXT. (SEE B)	2 x 136 2 x 64 3 - 325 1 x 374 1099 TOT.	1) .50 2) .50 6)	400 400 350	TUNNEL - FLEX. UPPER TURRET NOSE - FIXED	4-500 4-250 4-100	(SEE C) * 1-2000 T 4-500 4-250 4-100	4000	SCR-274N SCR-535A SCR-535F MN-26Y RC-36 RC-198 SCR-522	REFERENCE AS ABOVE * NO PROVISIONS FOR TORPEDO ON A-20G-40 & -45. + A-20G-15 HAS MN-26C INSTEAD OF MN-26Y. z SCR-522 INSTALLED ON THE -15'S ONLY.		
A-20J-DO -1 TO -20 INCL	AS ABOVE	AS ABOVE	S 61' 1/4" L 48' 7" H 17' 7" T 17' W 165 sq. ft.	B 17800 C 26000 R 26000 W 27000A	4	AS ABOVE	AS ABOVE	1) .50 2) .50 2)	400 400 350	TUNNEL - FLEX. UPPER TURRET NOSE - FIXED	AS ABOVE	AS ABOVE	AS ABOVE	SCR-274N SCR-535A 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'		GROUND-RUN		STD. ALT. FT.	MIL. POWER M.P.H.	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. FT.	LAND. DIST. FT.	LANDING SPEED M.P.H.	T.O. DIST. FT.			LAND. DIST. FT.	HIGH SPEED				RATE OF CLIMB FT./MIN.	HIGH SPEED	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			RANGE MILES	ENDUR. HOURS				RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS				
A-20B-DL	17000 19000 22000 24000 27000	2800 4000 4850 6500	2150 2700 3000 3600 4700	88 95 105 113 127	1500 1650 1900 2100 2700	25000 20000 15000 10000 5000 S L	270 303 315 318 308	570 790 1125 1290 2125	277 300 312 310 297	290 300 1275 118 213 0.0	23800 21000	NONE 1000	1080 490	850 300	3.3 1.4	1150 500	4.9 2.1	1500 600	7.0 2.7	- -	- -	2100 900	13.4 6.0			
A-20C-DO -1 TO -10 INCL	18000 20000 23000 25000 27000	3200 4400 5300 6500	2500 3150 3650 4700	91 98 106 113	1600 1750 2000 2100	25000 20000 15000 10000 5000 S L	275 302 317 319 308	590 760 1320 1750 1990	274 298 312 313 301	270 298 1280 5.0 2.1 0.0	24500 23200	NONE 2000	1080 540	875 350	3.3 1.5	- -	1500 675	6.6 3.1	- -	- -	2300 1000	12.0 6.5				
A-20G-DO -1 TO -15 INCL	19000 21000 24000 26000 27000	3600 4850 5900 6500	2700 2900 3650 4700	95 102 113 127	1650 1850 2100 2700	25000 20000 15000 10000 5000 S L	275 302 317 319 308	590 760 1320 1750 1990	274 298 312 313 301	270 298 1280 5.0 2.1 0.0	25300 24000 24000	NONE 2000 2000T	1080 540 540	975 450 425	3.5 1.7 1.7	1650 750 650	6.8 3.1 3.0	1700 800 700	7.3 3.4 3.3	2000 900 -	9.1 4.1 -	3300 1100 950	12.4 6.0 5.7			
A-20G-DO -20 TO -45 INCL	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	26000	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	FLIGHTS ABOVE 10000 FT. REQUIRE SPECIAL PROVISIONS FOR OXYGEN.
A-20J-DO -1 TO -20 INCL	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	26000	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: (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.

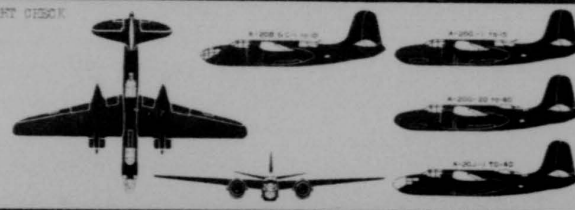
RANGE VALUES WITH TORPEDO ARE SHOWN FOR COMPARATIVE REFERENCE.

RDS. 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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**TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART**

PAGE 17  
AS OF:  
DATE 21 JULY 1944

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 R-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				
																		NO. & SIZE	NO. & SIZE
A-20H-DO -I TO -10 INCL.	2	WRIGHT R-2600-29 2 SPD. SUPERCH. HAMILTON STD. 11'3" DIA. -3 BL. P.P. HYDRA-MATIC	T 1700/S. L. M 1700/5200 C 1500/6400 1350/19900	S 61'4" L 18'0" H 18'1" T 17'0" W 165 sq. ft.	B 17800 C 26000 R 26000 W 27000	3	INBD. WINGS OUTRD. WINGS FUE. (BOMB B.) DROG. (EXTER. (SEE B))	2x136 2x64 3x325 1x374 1099 TOT.	1) 400 2) .50 400 6) 350	400 400 350	TURREL-FLEX. UPPER TURRET NOSE-FIXED	4- 500 4- 250 4- 100	4- 500 4- 250 4- 100	4- 500 4- 250 4- 100	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	SCR-271M SCR-695A MN-26Y RC-36 RE-198 TECHNICAL ORDER OI-404P-1 (15 JUNE 1944) NO TORPEDO PROVISIONS.
A-20K-DO -I TO -10 INCL.	2	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	4	AS ABOVE	AS ABOVE	1) 400 2) .50 400 2) 350	400 400 350	TURREL-FLEX. UPPER TURRET NOSE-FIXED	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	REFERENCE AS ABOVE. A-20K SAME AS A-20H, EXCEPT FOR BOMBARDIER NOSE.

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

MODEL & BLOCK NO.	TAKE OFF & LANDING <small>HARD SURFACE - NO WIND</small>						HIGH SPEED & CLIMB <small>AT NORMAL COMBAT WEIGHT</small>						RANGE & ENDURANCE <small>STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE</small>										REMARKS ON PERFORMANCE	
	TO CLEAR 50'		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				RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.	RANGE		ENDUR.
A-20H-DO -I TO -10 INCL.	19000	2750	3750	94	1830	3375	25000	285	-	150	-	26380	808E	1099	750	3.0	-	-	1115	6.1	-	-	2000	10.3
	21000	3500	4060	100	1875	3560	20000	315	600	307	600	26040	2000	725	575	2.1	-	-	1010	4.1	-	-	1255	6.3
	24000	4910	5625	108	2560	3258	15000	322	1200	317	1050	26090	4000	400	350	1.1	-	-	820	2.0	-	-	505	2.8
	26000	5600	6700	-	2500	-	10000	320	1900	302	1200	-	-	-	-	-	-	-	-	-	-	-	-	-
	27000	6250	7125	-	3125	-	5000	305	1950	299	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A-20K-DO -I TO -10 INCL.	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS

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) CRITICAL FLIGHT CHARACTERISTICS RESULT ABOVE 27000 LB. RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK
- (B) FUSELAGE TANKS ARE CARRIED IN BOMB BAYS WITHOUT EFFECTING BOMB LOAD CAPACITY. \* MILITARY POWER AVAILABLE FOR FIVE MINUTES ONLY.
- x EXTERNAL



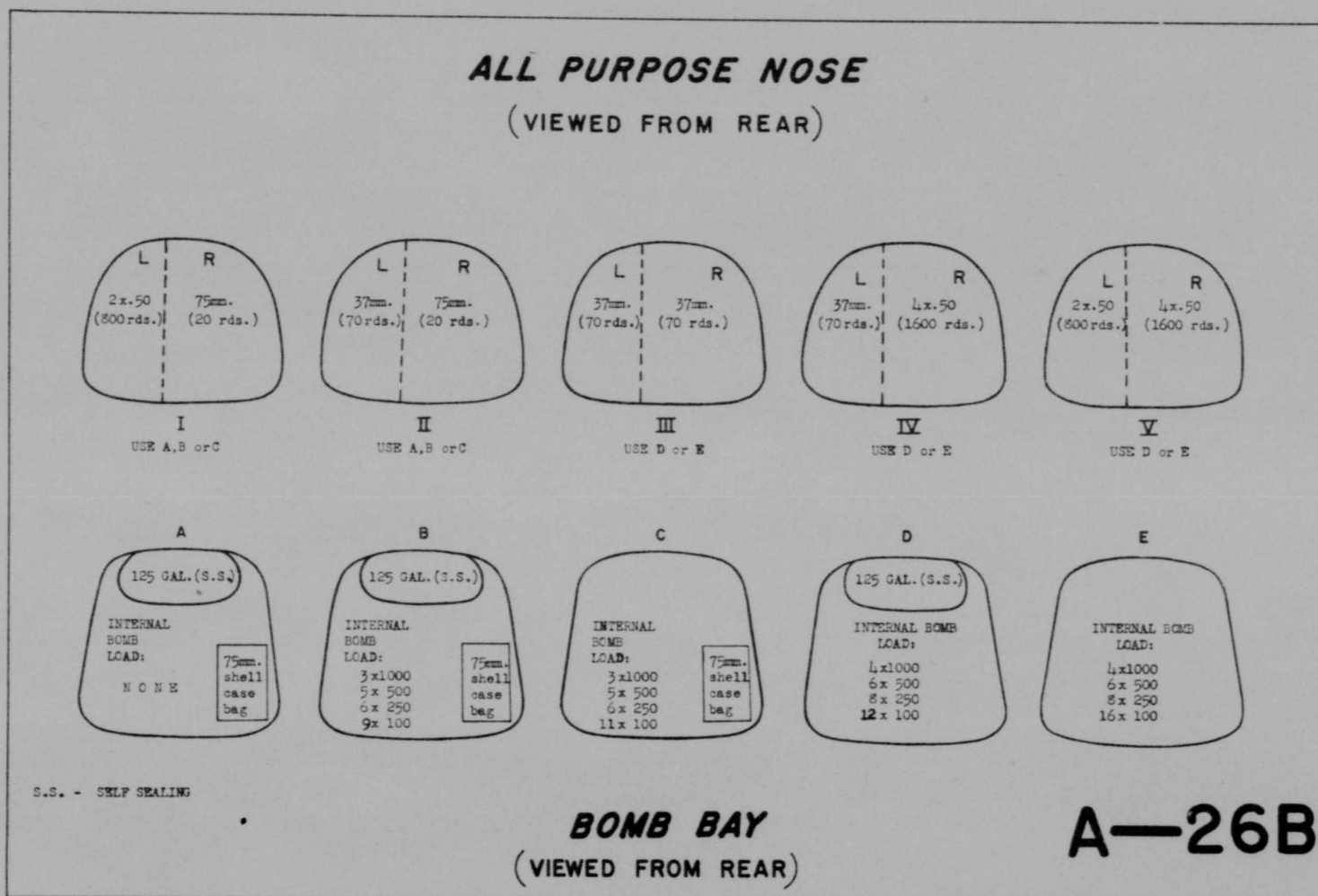
**A-20**  
"HAVOC"

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PAGE 12  
AS OF:  
DATE 21 JULY 1944

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	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
		SUPERCHARGER PROP MFR. TYPE	T-TAKE-OFF	L-LENGTH		C-COMBAT						NO. & SIZE OR STATION	NO. & SIZE OR CAPACITY			
A-26B {DL DT -1 & -5	2	PRATT-WHITENEY R-2800-27 SINGLE ST.-26PD. HAMILTON STD. 12"7" DIA.-3BL. F.F., HYDROMATIC	T 2000/ S L W 2000/ 1500 C 1600/ 6500 1150/14500	S .70' L 49'11" H 18'6" T 19'6" W 54.0 sq. ft.	B 23275 C 35000 A 35500 W 37000	2 2 1	2 x 300 2 x 100 1 x 125 1 x 675 1600 TOT.	1-75MM 2-.50 2-.50	20 500 500	*NOSE CAN, 113E1 UPPER TURRET LOWER TURRET	b 4-1000 b 6- 500 b 8- 250 b 16- 100	b 2-2000T 4-1000 4- 500 4- 250 4- 100	4-1000 4- 500x 4- 500x	SCR-27LN SCR-595 MN-26C RC-36	TECHNICAL ORDER 01-104J-1. ( 10 NOV. 1943 ) a PARTS WILL BE PROCURED FOR SERVICE INSTALLATION OF ALL-PURPOSE NOSE AS SHOWN ON PAGE OPPOSITE. b SEE PAGE OPPOSITE FOR BOMB LOAD CARRIED WITH 75MM. GUN. c NORMAL CREW (2) ; CREW (3) WITH 75MM. CANNON. f NO SELF SEALING BOMB BAY TAKE ON A-26E-1-DL ONLY. TECHNICAL ORDER 01-104J-1. ( 10 NOV. 1943 ) g SEE PAGE OPPOSITE FOR ALL-PURPOSE NOSE INSTALLATIONS.	
A-26B {DL DT -10 & -15	2	AS ABOVE	AS ABOVE	AS ABOVE EXCEPT FOR 50'7" LENGTH	B 23275 C 35000 A 35500 W 37000	2	AS ABOVE	6-.50 2-.50 2-.50	400 500 500	*NOSE UPPER TURRET LOWER TURRET	A 5	A B O V E	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'		GROUND-RUN	WEIGHT LB.	STD. ALT. FT.	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. FT.	LAND. DIST. FT.				LANDING SPEED MPH.	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.
A-26B {DL DT -1 & -5	25000 29000 32000 33000 34000 36000	- 2950 3700 4000 4300 4500	2650 2950 3200 3250 3250 3250	96 104 109 111 111 111	1750 2000 2150 2250 2250 2250	35000	20000 15000 10000 5000 S L	337 355 346 350 328	260 720 1010 1560 2050	320 341 330 320 297	100 120 95.0 7.0 2.7 0.0	35000 31100 31100 31100 31600 35000	NONE NONE 925 925 1000 800 800	1600 770 750 650 620	- 2.5 2.5 2.2 2.5	- 1100 1030 850 870	- 4.2 4.0 3.4 4.1	1560 1500 1270 870	6.7 6.9 5.3 4.1	- - - - - -	3110 1830 1650 1560 1305	16.1 9.4 6.3 6.0 6.3	*STRIPPED TO 35000 LB. FOR FERRYING. NOTE: WHEN 8 EXTERNAL WING PACKAGE GUNS ARE CARRIED HIGH SPEED WILL BE DECREASED APPROX. 13 MPH. AND RATE OF CLIMB 100 FT./MIN.	
A-26B {DL DT -10 & -15	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	35000	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: (A)

8 REMOVABLE .50 CAL. PACKAGE GUNS MAY BE MOUNTED ON WING BOMB RACKS IN PLACE OF BOMBS.

(B) 8 WING GUNS PLUS 112 FRAG. BOMBS. ( 4500 LB. TOTAL )

SEE FIGURES AND PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK  
MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY.T-TORPELO  
X-EXTERNAL

A-26

"INVADER"

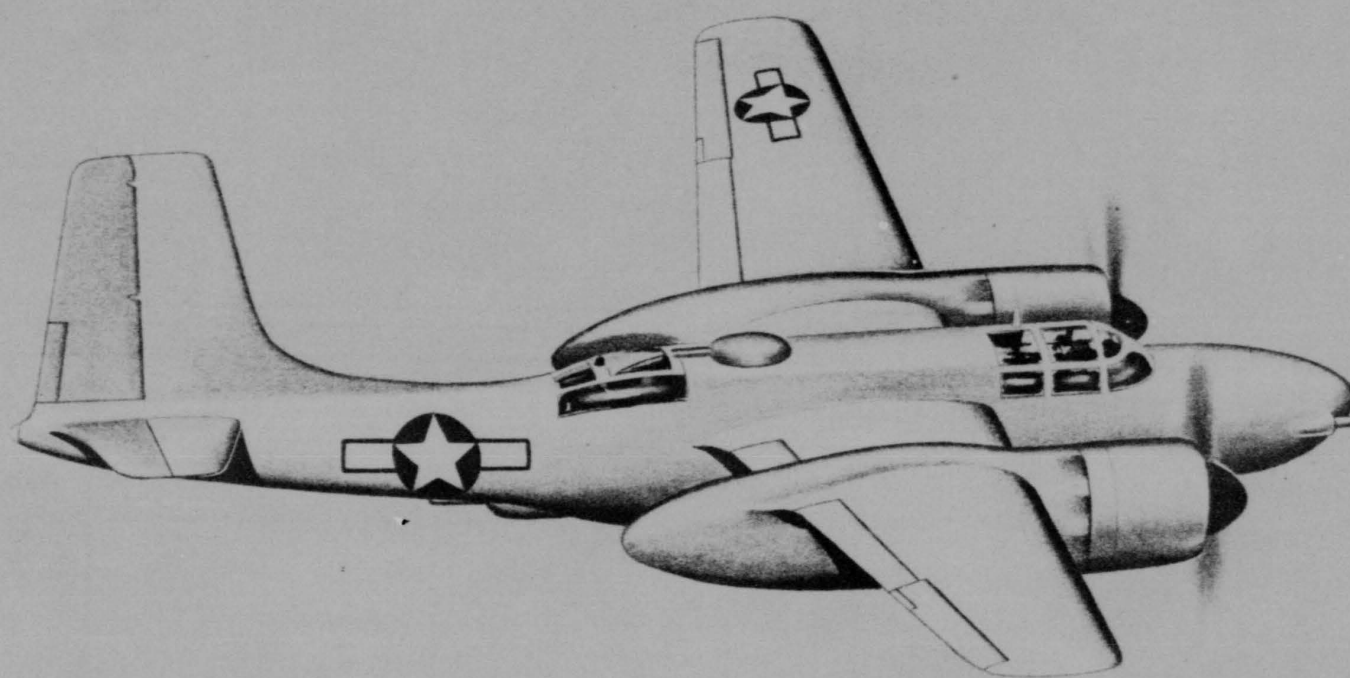
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MANUFACTURED BY DOUGLAS (Long Beach) "DL" and DOUGLAS (Tulsa) "DT"

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DOUGLAS A-26B

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
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PAGE 21 AS OF: DATE 26 JULY 1944																
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 R-RECD LIM W-WAR MAX.	COMBAT CREW	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
A-36 A-NA	1	ALLISON V-1710-27 SINGLE SPEED CURTISS 10'9" DIA. -3RL. CONST. SPD. ELECT.	T 1325/5 L M 1325/5400 we* 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 R 10700 W -	1	MAIN - WING EXT. - WINGS	2 x 90 2 x 75 2 x 150 480 TOT.	2-50 4-50	200 200	NOSE - FIXED WING - FIXED	NONE	2-500 2-250	1000	SCR-27LN SCR-535 or SCR-995**	TECHNICAL ORDER 01-602B-1. ( 10 JULY 1943) ** WAR EMERGENCY RATING. ** LAST 359 ONLY.
			T M C	S L H T W	B C R W											
			T M C	S L H T W	B C R W											
			T M C	S L H T W	B C R W											
			T M C	S L H T W	B C R W											
			T M C	S L H T W	B C R W											

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'		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.	AT 25000 FT.	RANGE	ENDUR.		RANGE	ENDUR.	
A-36 A-NA	9000	2800	3000	-	2050	2130	20000	288	500	277	300	16.6	11000	NONE	480	1100	5.6	-	-	-	-	-	-	2100	10.4	* WITH 2-500 LB. EXTERNAL BOMBS.
	10000	3400	3500	-	2600	2400	15000	295	1025	285	#	9.1	10000	NONE	330	1000	3.8	-	-	-	-	-	-	1500	7.7	
	11000	4100	-	-	3200	-	10000	305	1525	295	#	5.1	9000	NONE	180	550	2.0	-	-	-	-	-	-	850	3.9	
							5000	310	2075	295	#	2.4	10000	1000	180	500	2.0	-	-	-	-	-	-	800	3.7	

NOTES:

RED FIGURES ARE 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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PAGE 22  
DATE 25 JULY 1944

TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.		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 W-WAR MAX	B-BASIC C-COMBAT R-RECD LIM W-WAR MAX	COMBAT CREW	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY US GAL	NO. GUNS & PER CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL		MAX. LOAD LB	TYPE	
												NO. & SIZE OR STATION	NO. & SIZE OR CAPACITY			
C-46A-CU -I TO -45 INCL C-46A-CK -1 & 5	2	PRATT-WHITNEY R-2800-51 2 SPEED CURTISS 13'6" DIA. - 18L. P.F. HYDRA-MATIC	T 2000/ S L M 2000/ 1500 C 1600/ 5700 1450/13000	S 108'0" L 76'4" H 22'0" T 26'0" W 136'0" sq.	B 32100 C 46000 R 49600 W 56000A	3	WING-PANELS FUSELAGE	6-1100 8x 100 2200 TOT.	N	0	N E	FORE-BELLY APT-BELLY MAIN-CABIN TROOPS	3700 1800 10000 or 50	15000	SCR-211 269, 278, 287, 518, 578 & 695 SC-36, 45, 105 & 198 AN-APP-1	TECHNICAL ORDER 01-251A-1. (15 APR. 1944) * EARLY MODELS HAVE HAMILTON STD., 3BLADE, HYDRA-MATIC, 15'1" DIA. PROPELLER. * MISC. RADIO CARRIED: MAX. COMBINATION SHOWN. NOTE: EARLY MODELS LIMITED TO 10000 LB. GROSS WEIGHT & HAVE SMALL CARGO DOOR.
C-47-DL C-47A TO -90-DL C-47A TO -25-DR C-53, C&D-DL	2	PRATT-WHITNEY R-1830-92 INTEGRAL SUPER. HAMILTON STD. 11'7" DIA. - 3BL. P.F. HYDRA-MATIC	T 1200/ S L M - C 1050/7000	S 95'0" L 64'6" H 17'0" T 18'6" W 98'7" sq.	B 18000 C 26000 R 29300 W 36500A	3	MAIN-WINGS AUX. - WINGS FUSELAGE	2 x 202 2 x 200 8 x 100 1604 TOT.	N	0	N E	CARGO or TROOPS or LITTERS	6000 27 18	6000 SCR 10000 MAX 11000 MAX	SCR-211, 269, 278, 287, 518, 578, 695, 778, 855, 978, SC-36, 45, 105, 198, AN-APP-1	TECHNICAL ORDER 01-100C-1. (REV. 15 DEC. 1943) * MISC. RADIO CARRIED: MAX. COMBINATION SHOWN. (AS/APN-2 ON SOME MODELS). C-47, C-53 & C-53C INSTALLED WITH 12 VOLT RADIO SYSTEM; OTHERS WITH 24 VOLT RADIO SYSTEM. NOTE: C-47 & C-53 SERIES SIMILAR EXCEPT FOR LARGE CARGO DOOR ON C-47. THE C-53 CARRIES 24 PERSONNEL.
C-60A-LO A TO -5	2	WRIGHT R-1820-37 2 SPEED HAMILTON STD. 10'6" DIA. - 3BL. P.F. HYDRA-MATIC	T 1200/ S L M 1200/ 5700 C 1000/ 8400 900/16500	S 65'8" L 49'10" H 12'0" T 15'4" W 55'1" sq.	B 13000 C 21000 R 21000 W 25000	3	FRONT-WINGS REAR - WINGS AUX. - CABIN	2 x 150 2 x 172 3 x 131 1046 TOT.	N	0	N E	BELLY CABIN or PARATROOPS	3400 6600 or 18	6500	SCR-211, 269, 278, 287, 578, 695, SC-36, 45, 105, 198	TECHNICAL ORDER 01-75E-1. (10 MARCH 1943) * MISC. RADIO CARRIED: MAX. COMBINATION SHOWN. EARLY MODELS CARRY SCR-595 IN PLACE OF SCR-695. * 1200 LB. BALLAST REQUIRED IN NOSE TO BALANCE PARATROOPS.

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. LB	TOTAL FUEL US 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	RANGE MILES	ENDUR. HOURS	RANGE MILES		ENDUR. HOURS	RANGE MILES	ENDUR. HOURS
		C-46A-CU -I TO -45 INCL C-46A-CK -1 & 5	31000 39000 46000 50000		- 2050 2700 3500	2250 2150 2650 -		82 88 95 -	1200 1150 2000 2700	1600 1400 1600 -	16000 15000 10000 5000 S L				260 269 264 262 215	530 750 900 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 1100 1050 1050		1600 850 750 700	6.8 4.2 3.1 3.0	- - - -
C-47-DL C-47A TO -90-DL C-47A TO -25-DR C-53, C&D-DL	21000 23000 26000 29300	- 1850 2400 3200	2100 2300 2600 -	66 69 73 -	1300 1100 1600 2000	1600 1400 1600 -	20000 15000 10000 5000 S L	201 217 217 202 187*	180 450 720 920 -	180 150 720 920 -	37.0 20.0 11.0 5.0 0.0	29300 26000 29300	NONE 2000 6000**	1604 1000 804	1500 950 750	7.6 4.7 3.7	ABOVE PRAC-TICAL CRUIS-ING CEILING	2300 1450 1100	13.0 7.9 6.2	ABOVE PRAC-TICAL CRUIS-ING CEILING	3100 2050 1550	19.3 12.7 10.0	* MAX. PERMISSIBLE LEVEL FLIGHT SPEED FOR 29300 LB. **6000 LB. CARGO OR 27 TROOPS.			
C-60A-LO A TO -5	11000 17500 18500 21000 23000	- 1800 2050 2100 3300	2150 2600 2700 -	61 66 70 -	1700 2100 1150 1600 1900	2100 2100 2200 -	20000 15000 10000 5000 S L	259 259 250 255 238*	650 1300 1400 1600 1600	255 262 255 217 -	500 1000 1200 -	19.0 11.0 7.0 3.0 0.0	21000 23000	1150 5000**	1046 644	1000 600	4.5 2.7	AS ABOVE	1150 850	7.0 4.3	AS ABOVE	2300 1200	11.4 7.7	* SPEED RESTRICTED IN LEVEL FLIGHT. **5000 LB. CARGO OR 18 PARATROOPS & 1200 LB. BALLAST IN NOSE.		

NOTES:  
(A) PERMISSIBLE ONLY WITH ALL WING TANKS FULL.  
RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK.



C-46A  
"COMMANDO"



C-47A  
"SKYTRAIN"



C-60A  
"LODESTAR"

MANUFACTURED BY CURTISS (Buffalo) "CU"; DOUGLAS (Long Beach) "DL" & DOUGLAS (Oklahoma) "DR"; LOCKHEED (Burbank) "LO"

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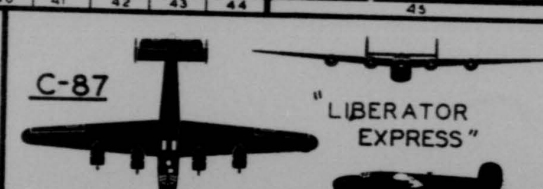
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PAGE 23  
AS OF:  
DATE 20 JULY 1944

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 R-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. 1-326 OR STATION	EXTERNAL NO. 4-326 OR CAPACITY			MAX. LOAD LB.	TYPE
C-54A-DO -1&-5 C-54A-DC -1 TO -15 INCL	PRATT-WHITNEY R-2000-3 or -7 2 SPEED HAMILTON STD. 13'1" DIA. - 3 BL. F.P., HYDROMATIC	T 1290/ S L M 1290/ 3000 C 1015/ 9000 940/13200	S 117' 6" L 93'10" H 27' 6" T 24' 8" W 1160 SQ. FT.	B 37000 C 58000 R 65800 W 85000A	6	INBD. - WINGS OUTD. - WINGS FUSELAGE	2 x 190 2 x 120 4 x 150	3620 TOT.	N	O	N	E	FORE-BELLIE AFT-BELLIE FORE-CARGO AFT-CARGO TROOPS	1800 2100 24000 11900 30 or 50	25000	SCR-211, 267, 271N, 287, 578, 595/695, RC-36, 43, 104, 128.	TECHNICAL ORDER 01-4098-1. (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&-5	AS ABOVE	AS ABOVE	AS ABOVE	B 37000 C - R 62000 W 73000	6	INBD. - WINGS OUTD. - WINGS AUX. - WINGS FUSELAGE	2 x 190 2 x 510 2 x 120 2 x 150	3740 TOT.	N	O	N	E	TROOPS LITTERS	41 or 49* 28 or 36*	32500	AS ABOVE	NO REFERENCE * 41 TROOPS or 28 LITTERS WITH FUSELAGE TANKS (3740 GAL.) 49 TROOPS or 36 LITTERS WITHOUT FUSELAGE TANKS (2812 GAL.) C-54B-1; (4) PLANES HAVE REDUCED LITTER CAPACITY.
C-69-LO -1 TO -15 INCL	WEIGHT R-3350-35 SINGLE or 2 SPEED HAMILTON STD. 15'2" DIA. - 3 BL. F.P., HYDROMATIC	T 2200/ S L M 2200/ 7500 C 2000/ 7800	S 123'0" L 95'2" H 23'8" T 28'0" W 1650 SQ. FT.	B 50500 C - R 75600 W 101000A	9	WINGS WINGS (SEE 2)	2 x 1589 2 x 819	4816 TOT.	N	O	N	E	60 PASS-ENGERS	NONE	14000	SCR-274N, (2) 269, 287, 211, & 695. RC-43/193, 36 & 104.	TECHNICAL ORDER 01-7503-1. (10 NOV. 1943) * FIRST FEW AIRPLANES EQUIPPED WITH SINGLE SPEED BLOWER. † TOTAL FUEL CAPACITY OF 1st. & 2nd. ARTICLES IS 4000 GAL.; 3rd. & SUBSEQUENT IS SHOWN. * HP. RATINGS ARE WITH SINGLE SPEED BLOWER.
C-87-CF	PRATT-WHITNEY R-1830-13 TURBO HAMILTON STD. 11'7" DIA. - 3 BL. F.P., HYDROMATIC	T 1200/ S L M 1200/ 26500 C 1100/ 27000	S 110'0" L 66'4" H 18'0" T 25'8" W 1048 SQ. FT.	B 34250 C 56000 R 56000 W 62000	5	INBD. - WINGS OUTD. - WINGS	12- 236L 6- 150	2814 TOT.	1-.50	500	TAIL - FLEX. (ON SOME MODELS ONLY)		CHAIRS or LITTERS & BENCH	20 or 7 & 11	4400 NBR 10000 MAX.	SCR-274N, 269, 287, 578 & 695, RC-36, RC-43	TECHNICAL ORDER 01-50A-1. (15 DEC. 1943)

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	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 LB.	TOTAL FUEL U.S. GAL.	AT 10000 FT.		AT 25000 FT.		AT 10000 FT.		AT 25000 FT.			
		FT.	FT.		FT.	FT.										FT.	FT.	MILES	HOURS	MILES	HOURS	MILES		HOURS	MILES
C-54A-DO -1&-5 C-54A-DC -1 TO -15 INCL	45000 55000 59000 62500 65000	- 2800 3300 3850 4350	3900 3400 - - -	80 90 - - -	1600 1850 2150 2350 -	2200 2600 -	20000 15000 10000 5000 S L	- - - 272 260	- - - 1150 1150	269 278 276 260 245	425 800 1000 1100 1050	24.4 16.0 9.4 4.4 0.0	62000 65000 59000 66500 73000	NONE *8500 *8500 *14000 *14000	3620 2720 1820 2036 2036	EXCEEDS SPEED LIMITS	ABOVE PRAC-TICAL CRUISE-ING CEILING	3300 2400 1550 1500	15.7 11.5 7.5 7.5	ABOVE PRAC-TICAL CRUISE-ING CEILING	4000 2800 1850 1750	25.1 16.5 11.4 9.9	* 5000 LB. CARGO or 30 TROOPS & 2000 LB. EQUIPMENT. * 11,000 LB. CARGO or 50 TROOPS & 4000 LB. EQUIPMENT.		
C-54B -1&-5	55000 59000 62500 65000 73000	2800 3300 3850 4350 5500	3400 3000 4750 -	90 95 98 -	1600 1850 2150 2350 2700	2600 -	A S A B O V E	- - - -	- - - -	- - - -	- - - -	- - - -	63350 66000 60500 66500 73000	NONE 8000 8000 11,000 21000	3740 2906 2036 2036 2036	AS ABOVE	AS ABOVE	3350 2700 1825 1775 1700	17.1 13.0 8.7 8.6 8.3	AS ABOVE	4250 3200 2125 2050	27.1 19.0 13.4 12.6 12.2	* LANDING WEIGHT LIMITED TO 62000 LB.		
C-69-LO -1 TO -15 INCL	58500 62000 67000 75000 82000	- 2050 2500 3100 3750	2550 3150 3400 -	100 105 110 -	1400 1450 1550 1900 2300	1450 1550 -	20000 15000 10000 5000 S L	- - - 330 314	- - - 2250 2480	- - - 305 307	640 1150 1680 2160 2300	14.0 9.0 5.0 2.0 0.0	82000 82000 78200 82000	NONE 10000 14600 *14600	4216 3178 1638 1638	- - - -	- - - -	3250 1950 985 900	11.3 7.3 3.4 3.4	- - - -	4550 2700 1250 1200	23.8 14.0 6.7 6.4	ALL PERFORMANCE WITH SINGLE SPEED SUPERCHARGER. * ALTERNATE CARGO IN LIEU OF PASSENGERS		
C-87-CF	40000 50000 56000 60000	- 3600 5050 6600	3300 3950 4300 -	90 100 105 -	2800 3300 3600 4750	2800 -	30000 25000 20000 15000 10000 5000	- 306 293 280 266 255	600 1050 1100 1150 1200	- 300 287 275 262 249	34.0 26.8 20.9 15.3 9.0 4.2	52900 56000 56000 60000	NONE 3100 5800 9800	2814 2814 2364 2364	1215 1205 1000 975	4.6 4.6 3.8 3.7	1385 1375 1135 1100	4.6 4.6 3.8 3.8	2635 2550 2100 1975	11.7 11.4 9.4 8.9	2835 2750 2335 2165	11.0 10.8 8.9 8.8	3000 2850 2350 2300	16.2 15.5 12.5 11.7	

NOTES:  
(A) PERMISSIBLE ONLY WITH ALL WING TANKS FULL.  
RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK.



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



THIS PAGE IS UNCLASSIFIED

**TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART**

PAGE 24  
AS OF:  
DATE: 21 JULY 1944

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 R-RECD.LIM W-WAR MAX.	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS PER GUN	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			
P-38F-LO	2	ALLISON V-1710-L9 & -53 TURBO CURTISS 11'6" DIA. - 3BL. P.F., ELECTRIC	T 1225/8 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 R 20000 W -	1	MAIN-WINGS RES.-WINGS	2 x 90 2 x 60 300 TOT.	1-20MM. 4-.50 (MAX.)	150 500	NOSE-TYPE M1 NOSE-FIXED	NONE	NONE	SCR-183 or SCR-27LN	TECHNICAL ORDER 01-75FF-1. (REV. 15 JAN. 1943) * 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 R 20000 W -	1	MAIN-WINGS RES.-WINGS DRGF.-EXTER.	2 x 90 2 x 60 2 x 75 2 x 150 600 TOT.	A S	A B O V E	NONE	2-1000 2-500 2-325 2-250 2-100	2000	SCR-27LN* SCR-515** SCR-522 SCR-535	REFERENCE AS ABOVE * PROVISIONS ONLY. ** SPACE ONLY.	
P-38G-LO -1 TO -15 INCL.	2	ALLISON V-1710-L9 & -55 TURBO CURTISS 11'6" DIA. - 3BL. P.F., ELECTRIC	T 1225/8 L M 1150/27000 C 1100/24000	AS ABOVE	B 13500 C 15800 R 20000 W -	1	AS ABOVE EXCEPT THAT LAST 200 P-38G-10'S ARE SAME AS BELOW	2 x 90 2 x 60 2 x 75 2 x 150 600 TOT.	A S	A B O V E	AS ABOVE EXCEPT LAST 200 P-38G-10'S ONLY ARE SAME AS BELOW	2-1000 2-500 2-325 2-250 2-100	3200	SCR-27LN* SCR-515** SCR-522 SCR-535 SCR-695***	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-L9 & -91 TURBO CURTISS 11'6" DIA. - 3BL. P.F., ELECTRIC	T 1425/8 L M 1125/25000 C 1100/25000	AS ABOVE	B 13700 C 16300 R 21000 W -	1	MAIN-WINGS RES.-WINGS DRGF.-EXTER.	2 x 90 2 x 60 2 x 75 2 x 150 2 x 120 900 TOT.	1-20MM. 4-.50 (MAX.)	150 500	NOSE-AN-M2" C NOSE - FIXED	NONE	2-1500 2-1000 2-500 2-325 2-250 2-100	3200	SCR-27LN* SCR-515** SCR-522 SCR-695	TECHNICAL ORDER 01-75FF-1. (25 SEPT. 1943) * 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

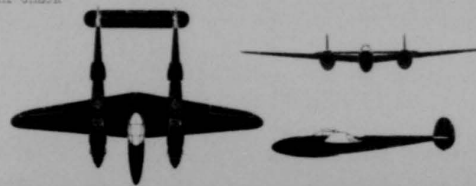
MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE			
	TO CLEAR 50		LANDING SPEED	GROUND-RUN		STD. ALT.	MIL. POWER		MAX. CONTIN. POWER		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.		HT. 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 25000 FT.						
	LB.	FT.	FT.	MPH	FT.	FT.	FT.	MPH	FT/MIN	MPH	FT/MIN	MIN	LB.	LB.	U.S. GAL.	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES		ENDUR. HOURS	RANGE MILES	ENDUR. HOURS
P-38F-LO	13500	-	2750	85	-	1150	25000	390	2100	360	#	11.0	15800	NONE	300	400	1.5	425	1.3	700	2.7	675	2.4	900	4.5	
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 1830 2400	1150 1580 1620 1800 -	25000 20000 15000 10000 5000	395 390 376 351 347	2100 2300 2450 2600 2800	360 365 353 340 327	# # # # #	12.0 8.8 6.0 4.0 1.8	19900 18000 15900 17000 18000	NONE NONE NONE 1000 2000	900 600 300 300 300	1375 800 400 385 375	5.0 2.9 1.3 1.3 1.3	1450 850 400 395 375	5.0 2.9 1.3 1.3 1.3	2050 1400 700 675 685	9.3 6.1 2.7 2.8 2.8	2050 1425 685 650 600	8.6 5.4 2.4 2.4 2.3	2300 1750 900 850 800	9.9 9.1 4.5 4.3 4.1	
P-38G-LO -1 TO -15 INCL.		A S	A E O V S			15800	25000 20000 15000 10000 5000	400 390 375 360 346	1700 2300 2500 2600 2800	390 377 362 347 333	# # # # #	11.5 8.5 5.9 3.7 1.8				SUBSTANTIALLY		AS	ABOVE							
P-38H-LO -1 & -5	13600 15500 17500 19500 20300	- 2000 2600 3500 4000	2750 3050 3500 -	86 93 103 -	- 1200 1600 2000 2300	1150 1650 2000 -	25000 20000 15000 10000 5000	402 387 372 360 345	1700 2300 2500 2600 2800	390 375 360 348 332	# # # # #	9.7 7.6 5.8 3.8 1.8	20300 18500 16500 18500 19500	NONE NONE NONE 2000 3200	900 600 300 300 300	1500 750 350 325 300	5.0 2.9 1.3 1.3 1.3	1390 800 375 305 300	5.0 2.9 1.3 1.3 1.3	1950 1350 650 575 550	9.3 6.1 2.7 2.8 2.7	1980 1390 650 590 525	8.6 5.1 2.4 2.3 2.2	2200 1700 850 750 700	10.0 9.5 4.7 4.0 3.8	NO WAR EMERGENCY POWER AVAILABLE BECAUSE OF INADEQUATE COOLING

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 15 MINUTES.



**P-38**  
"LIGHTNING"

MANUFACTURED BY LOCKHEED (Burbank) "LO"

CONFIDENTIAL

THIS PAGE IS UNCLASSIFIED

**TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART**

PAGE 25  
AS OF:  
DATE 21 JULY 1944

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 R-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		
P-38 J-LO -5 & -10	ALLISON V-1710-89 & -91 TURBO CURTISS 11'6" DIA. - 3 BL. F.F. ELECTRIC	T 1425/3 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 16150 R 21000 W -	1	MAIN - WINGS RES. - WINGS DROF. - EXTER.	2x 90 2x 60 2x 75 or 2x150 or 2x165 or 2x180 200 T.T.	1-20MM 4-.50 (MAX.)	150 500	NOSE-AW 12"0" NOSE - FIXED	NONE	2-1500 2-1000 2-500 2-325 2-250 2-100	3200	SCR-27LN* SCR-515** SCR-532 SCR-695	TECHNICAL ORDER 01-75FF-1. (25 SEPT. 1943) * PROVISIONS ONLY. ** SPACE PROVIDED.	
P-38 J-LO -5 TO -25 INCL. [L.E. TANKS]	AS ABOVE	T 1425/3 L W 1600/26500 C 1100/32500	AS ABOVE	B 14100 C 17500 R 22000 W -	1	MAIN - WINGS RES. - WINGS L.E. - WINGS DROF. - EXTER. (SEE F)	2x 90 2x 60 2x 75 or 150 or 165 or 180 or 200 1010 T.T.	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	AS ABOVE	AS ABOVE	REFERENCE AS ABOVE IF THE 2-55 GAL. LEADING EDGE WING TANKS ARE INSTALLED AT FACTORY, MOD. CENTER or FURNISHED TO SERVICE IN KITS. W WAR EMERGENCY RATING.	
P-38 L-LO -1	ALLISON V-1710-111 & -113 TURBO CURTISS 11'6" DIA. - 3 BL. F.F. ELECTRIC	T 1425/3 L M 1425/26500* W 1600/26500 C 1100/32500	AS ABOVE	B AS ABOVE C AS ABOVE R W	1	AS ABOVE	AS ABOVE	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	AS ABOVE	AS ABOVE	REFERENCE AS ABOVE W WAR EMERGENCY RATING. * INCREASED HP. RATING IS ANTICIPATED.	

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

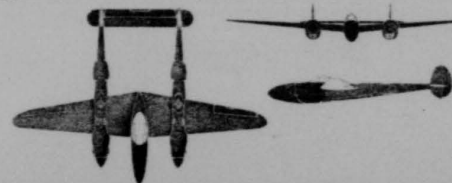
MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND				HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT								RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS				
	GROSS WEIGHT LB.	TO CLEAR 50 FT.		GROUND-RUN		STD. ALT. FT.	WAR EMERG.		MIL. POWER		MAX. CONTIN. 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. FT.	LAND. DIST. FT.	LANDING SPEED MPH	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	RANGE MILES
P-38 J-LO -5 & -10	13700 15500 16500 18500 19600 20500	1650 1900 2100 2750 3400 4350	4750 3050 3200 3550 3750 4750	100 105 108 116 121 121	900 1050 1150 1500 1850 2050	16150	30000 25000 20000 15000 10000 5000	415 420 408 395 380 363	1830 2665 3190 3550 3820 3960	405 406 392 378 365 350	1550 2500 2875 3050 3250 3425	327 381 365 353 340 321	10.8 8.0 6.2 4.5 2.9 1.6	20950 19050 16150 18150 19650	NONE NONE NONE 2000 3200	900 630 300 300 300	1000 750 325 300 290	3-8 2-6 1-1 1-1 1-1	1000 775 350 300 275	3-8 2-6 1-1 1-1 1-1	1700 1250 600 525 475	6-7 4-5 2-3 2-2 2-0	1750 1300 600 525 500	6-9 4-6 2-2 2-0 1-9	2100 1675 800 700 650	12-0 9-2 4-5 3-7 3-8	P-38J SERIES HAVE INCREASED DRAG DUE TO EXTERNAL CORE TYPE COOLERS. PERFORMANCE VALUES ARE SHOWN WITH-OUT EXTERNAL RACKS.
P-38 J-LO -5 TO -25 INCL. [L.E. TANKS]	11000 16000 17500 19500 20700 21600	1700 2000 2200 3400 4800 5500	2800 3150 3400 3750 4250 4350	102 109 114 121 121	950 1100 1300 1850 2000	17500	30000 25000 20000 15000 10000 5000	405 411 405 390 377 360	1625 2415 2925 3265 3525 3670	395 398 385 373 361 346	1350 2200 2650 2850 3000 3200	390 378 359 348 336 317	11.7 8.8 6.7 4.9 3.3 1.6	21600 20200 17500 19500 20700	NONE NONE NONE 2000 3200	1010 740 410 435 410	1050 835 460 435 400	4-2 3-1 1-6 1-6 1-6	1070 800 475 425 410	4-2 3-1 1-6 1-6 1-6	1820 1360 840 710 665	7-7 5-2 3-1 3-0 2-9	1660 1160 840 735 705	7-6 5-4 3-1 2-7 2-7	2260 1910 1175 975 900	13-1 12-0 6-7 5-3 5-3	AS ABOVE
P-38 L-LO -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	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 46 47

NOTES:

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK

\* MILITARY POWER AVAILABLE FOR 15 MINUTES



**P-38**  
"LIGHTNING"

MANUFACTURED BY LOCKHEED (Burbank) "Lo"

CONFIDENTIAL

THIS PAGE IS UNCLASSIFIED

PAGE 26  
AS OF  
DATE 21 JULY 1944

### TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

CONFIDENTIAL

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 R-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		
P-39D-BE	ALLISON V-1710-35 SINGLE SPEED CURTISS 10"5" DIA. - 3BL. CONST. SPD. HUB	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 R 9200 W -	1	1	1	WING TOTALS PROP. + BELLY 12-120 1 x 75 or 1 x 156 or 1 x 175 295 TOT.	L-.30 2-.50 1-37MM	*1000 200 30	WING - FIXED NOSE - FIXED PROP. - TYPE M1	NONE	1-500 1-325 1-250 1-100	500	SCR-283	TECHNICAL ORDER 01-11075-1. (30 JUNE 1943)
P-39D-BE -1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	1	1	1	AS ABOVE	L-.30 2-.50 1-20MM	*1000 200 60	WING - FIXED NOSE - FIXED PROP. - TYPE M1	A S	A B O V E		SCR-274N OR SCR-522A & SCR-535A	TECHNICAL ORDER 01-11075-1. (30 JUNE 1943)
P-39D-BE -2	ALLISON V-1710-63 SINGLE SPEED CURTISS 10"5" DIA. - 3BL. CONST. SPD. HUB	T 1325/S L M 1150/12000 C 1000/10800	AS ABOVE	AS ABOVE	1	1	1	AS ABOVE	A S	A B O V E	A S	A B O V E	A S	A B O V E	AS ABOVE	A S A B O V E
P-39F-BE	ALLISON V-1710-35 SINGLE SPEED ARGO PRODUCTS 10"5" DIA. - 3BL. CONST. SPD. HUB	T 1150/S L M 1150/12000 C 1000/10800	AS ABOVE	AS ABOVE	1	1	1	AS ABOVE	L-.30 2-.50 1-37MM	*1000 200 30	WING - FIXED NOSE - FIXED PROP. - TYPE M1	A S	A B O V E		SCR-283	TECHNICAL ORDER 01-11075-1. (30 JUNE 1943)
P-39K-BE -1	ALLISON V-1710-63 SINGLE SPEED ARGO PRODUCTS 10"5" DIA. - 3BL. CONST. SPD. HUB	T 1325/S L M 1150/12000 C 1000/10800	AS ABOVE	AS ABOVE	1	1	1	AS ABOVE	A S	A B O V E	A S	A B O V E	A S	A B O V E	SCR-274N OR SCR-522A & SCR-535A	TECHNICAL ORDER 01-11075-1. (30 JUNE 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				
	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-CARGO-PASS 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. RANGE MILES	AT 10000 FT. ENDUR. HOURS	AT 25000 FT. RANGE MILES	AT 25000 FT. ENDUR. HOURS		AT 10000 FT. RANGE MILES	AT 10000 FT. ENDUR. HOURS	AT 25000 FT. RANGE MILES	AT 25000 FT. ENDUR. HOURS
P-39D-BE	6700 7600 7800 8150 8850	- 2800 3000 3400 4500	1850 2050 2100 2200 -	82 86 88 91 -	- 1800 2000 2250 2800	1100 1300 1350 1100 -	7650	25000 20000 15000 10000 5000	328 318 360 355 335	750 1350 2000 2150 2550	310 332 343 315 323	11.0 9.1 6.1 3.9 1.9	8650 8600 8150 7650 8150	NONE NONE NONE NONE 500	295 276 195 120 120	550 525 400 275 225	2.2 2.0 1.6 0.9 0.9	- - 1.50 - -	- - 2.4 1.5 1.5	- - - - -	- - - - -	1100 1090 800 600 450	6.2 5.9 4.7 2.9 2.6	ALL PERFORMANCE ESTIMATED	
P-39D-BE -1		A S	A B O V E																					A S A B O V E	
P-39D-BE -2	6700 7600 7800 8150 8850	- 2500 2700 3000 4200	1850 2050 2100 2200 -	82 86 88 91 -	- 1600 1750 2000 2600	1100 1300 1350 1100 -																		A S A B O V E	
P-39F-BE		SIMILAR TO P-39D																						A S A B O V E	
P-39K-BE -1		SIMILAR TO P-39D-2																							A S A B O V E

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:

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

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



**P-39**  
"AIRACOBRA"

MANUFACTURED BY BELL (Buffalo) "HE"

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PAGE 27  
AS OF:  
DATE 21 JULY 1944

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
	SUPERCHARGER PROP. MFR. TYPE	T-TAKE-OFF C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT R-RECD LIM W-WAR MAX		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	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 R 9200 W -	1	WING TOTALS 12-120 DROPP.-BELLY 1x75 or 1x156 or 1x175 295 TOT.	2-.50 4-.50 1-37MM	*1000 200 30	WING - FIXED NOSE - FIXED PROP. - TYPE ML	NONE	1-500 1-325 1-250 1-100	500	SCR-27LN or SCR-522A & SCR-535A	TECHNICAL ORDER 01-110PM-1. (30 JUNE 1943)		
P-39M-BE -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.	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 -	B 6400 C 7600 R 9200 W -	1	WING TOTALS 8-87 DROPP.-BELLY 1x75 or 1x156 or 1x175 262 TOT.	2-.50 2-.50 1-37MM	300 200 30	WING - FIXED NOSE - FIXED PROP. - TYPE ML	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	TECHNICAL ORDER 01-110PM-1. (10 AUG. 1943) * SCR-695 REPLACES SCR-535A ON P-39N-5 ONLY. ** 1st. 166 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.	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	AS ABOVE	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.	ALLISON V-1710-65 (A) SINGLE SPEED AERO PRODUCTS 11'7" DIA. - 3BL. CONST. SPD. HYDR.	AS ABOVE	AS ABOVE	AS ABOVE	1	WING TOTALS 12-120 DROPP.-BELLY 1x75 or 1x156 or 1x175 295 TOT.	2-.50 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		WEIGHT LB.	STD. ALT. FT.	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. 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-39L-BE -1	7000 7400 7900 8400 9100		- 2500 3100 3750 5000	1950 2000 2100 - -			84 86 89 - -	1150 1200 1300 - -	7900	25000 20000 15000 10000 5000				325 317 360 354 335	690 1250 1900 2350 2900	309 330 342 341 322	11.9 9.7 6.6 4.2 2.1	9100 8400 7900 8400	NONE NONE NONE NONE	295 195 120 120		800 400 250 200	2.0 1.6 0.9 0.9
P-39M-BE -1	7000 7400 7900 8400 9100	- 3100 3750 4400 5000	1950 2000 2100 - -	84 86 89 - -	1200 1300 1400 - -	7900	25000 20000 15000 10000 5000	357 365 370 350 330	1200 1775 2400 2250 2050	343 352 357 337 320	12.8 9.5 7.1 4.9 2.5	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE			
P-39N-BE -0 TO -5 INCL.	6800 7600 8100 8700 8800	- 2550 3050 3600 5700	1850 2050 2150 - -	83 88 91 - -	1100 1300 1400 - -	7600	25000 20000 15000 10000 5000	368 375 376 357 330	1175 1825 2450 2600 2600	350 375 365 345 320	11.9 8.5 6.1 4.0 2.0	8750 8600 8050 7550 8050	NONE NONE NONE NONE NONE	262 213 162 87 87	800 450 350 175 150	2.0 1.8 1.4 0.6 0.6	550 775 525 300 225	3.5 3.2 2.2 1.0 1.0	- - 385 300 285	1.1 1.1 1.1 1.1 1.1	- - 975 900 625 550 275	5.4 5.0 3.3 1.7 1.5			
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	AS ABOVE	AS ABOVE	SEE NOTE (B) BELOW.	
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	AS ABOVE	AS ABOVE	NOTE: PRELIMINARY TESTS OF P-39Q-21 & -25 SHOW THAT 4 BLADED PROPELLER MATERIALLY EFFECTS DIRECTIONAL STABILITY, BUT NOT PERFORMANCE. SEE NOTE (B) BELOW.	

NOTES:

RANDOM P-39 MODELS MODIFIED FOR AIR/GROUND SUPPORT BY INSTALLATION OF CAMERAS, BELLY ARMOR, ETC.

\* 1000 RIE./GUN MAX. W.R. GROUND STRAPPING; 300 RIE./GUN NORMAL.

ATTENTION:

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

SEE FIGURES ARE PRELIMINARY; SUBJECT TO REVISION 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 AIRPLANES ALLICATED TO AAF.

P-39Q-10 THRU P-39Q-30 HAVE AN AUTOMATIC SPEED-BOOST CONTROL.

(B) RANGES SHOWN WERE ESTIMATED FOR CONVENTIONAL TYPE AIRPLANES; AIRPLANES 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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PAGE 28  
AS OF:  
DATE 21 JULY 1944

### 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.	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA		B-BASIC C-COMBAT R-RECD LIM W-WAR MAX	TANK TYPE 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			
P-40E & E-1 - CU	1	ALLISON V-1710-39 SINGLE SPEED CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECT.	T 1150/ S L M 1150/11700 C 1000/10800	S 37'4" L 31'9" H 12'4" T 8'2" W 236 SQ. FT.	B 6900 C 8400 R 10000 W -	1	REAR - WING FRONT - WING FUSELAGE PROP. - BELLY	1 x 52 1 x 35 1 x 62 1 x 52	6-.50	281 (average)	WING - FIXED	NONE	1-500 & 2-100 or 6-20. 1-325 1-250 1-100	700	SCR-283 or SCR-274N	TECHNICAL ORDER 01-250P-1. (REV. 20 OCT. '43) * NO EXTERNAL WING BOMBS ON EARLY MODELS. * WITHOUT RAM.
P-40F-CU - I TO -20 INCL.	1	PACARD V-1650-1 SINGLE STG. - 2 SPD CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECT.	T 1300/ S L M 1240/11500 C 1080/ 9500 1010/16000	S 37'4" L 33'4" H 12'4" T 8'2" W 236 SQ. FT.	B 7000 C 8500 R 10000 W -	1	REAR - WING FRONT - WING FUSELAGE PROP. - 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	WING - FIXED	A S	A B O V E	AS ABOVE	SCR-274N or SCR-522A * SCR-535A or SCR-695	TECHNICAL ORDER 01-250H-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/ S L M 1150/11800 C 1000/11000	S AS ABOVE	B 6950 C 8400 R 10000 W -	1	AS ABOVE	A S	A B O V E	WING - FIXED	A S	A B O V E	AS ABOVE	AS ABOVE	TECHNICAL ORDER 01-250K-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	PACARD V-1650-1 SINGLE STG. - 2 SPD CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECT.	T 1300/ S L M 1240/11500 C 1080/ 9500 1010/16000	S AS ABOVE	B 7000 C 8500 R 10000 W -	1	REAR - WING FRONT - WING FUSELAGE PROP. - BELLY	1 x 54 1 x 66 1 x 52.75 150 or 170 321 TOT.	4-.50	201 (average)	WING - FIXED	A S	A B O V E	AS ABOVE	SCR-274N	TECHNICAL ORDER 01-250L-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/ S L M 1125/17300 C 1000/16400	S AS ABOVE	B 6950 C 8400 R 10000 W -	1	REAR - WING FRONT - WING FUSELAGE PROP. - BELLY	1 x 54 1 x 37 1 x 66 1 x 52.75 150 or 170 327 TOT.	6-.50	281 (average)	WING - FIXED	A S	A B O V E	AS ABOVE	TECHNICAL ORDER 01-250M-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' DIST.		LANDING SPEED MPH	GROUND-RUN DIST.		WEIGHT LB.	STD. ALT. FT.	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. FT.	LAND. FT.		T.O. FT.	LAND. FT.			HIGH SPEED MPH.	RATE OF CLIMB FT/MIN.	HIGH SPEED MPH.	RATE OF CLIMB FT/MIN.				TIME TO CLIMB MIN.	AT 10000 FT. RANGE MILES.	AT 25000 FT. RANGE MILES.	AT 10000 FT. RANGE MILES.	AT 25000 FT. RANGE MILES.	AT 10000 FT. RANGE MILES.	AT 25000 FT. RANGE MILES.																							
P-40E & E-1 - CU	7500 8100 8400 8700 9100	- 2500 3125 3600 4300	1550 1700 1750 - -	84 87 90 - -	1600 1800 1950 - -	1050 1100 - - -	8400 8400 8400 8400 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	201 119 119	425 325 300	1.7 1.2 1.2	- - -	- - -	675 525 450	3.0 2.2 2.1	- - -	- - -	850 650 575	4.5 3.3 3.1																			
P-40F-CU - I TO -20 INCL.	7500 8450 9200 9350 9550 10000	- 3700 4150 4400 4700 5150	1700 1900 2150 2550 2700 3100	81 81 81 81 81	1600 1800 1950 1950 2100	1050 1250 1300 1350 1400	8500 8500 8500 8500 8500	25000 20000 15000 10000 5000	350 364 352 340 320	1000 1100 1360 2210 2160	- 320 332 320 300	18.3 11.6 7.6 4.5 2.4	10000 9350 9200 8850 9550	NONE NONE NONE NONE 700	327 232 209 157 157	- - 550 475 375 325	- - 2.0 1.7 1.3 1.3	- - 550 575 425 350	- - 2.3 2.0 1.8 1.8	600 700 600 500	3.4 3.0 3.2 2.2	- - -	- - -	1500 1000 875 700 600	8.0 5.0 4.4 3.1 3.2																				
P-40K-CU - I TO -15 INCL.	7500 8800 9150 9300 9500 10000	- 2950 3150 3200 3350 -	1700 1950 2000 2050 2100 -	81 81 81 81 81	1800 1900 1950 1950 2050 -	1300 1350 1400 -	8400 8400 8400 8400 8400	25000 20000 15000 10000 5000	- 330 362 342 320	- 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	- - 500 400 350 300	- - 1.9 1.6 1.2 1.2	- - - - -	900 750 600 550	3.9 3.4 2.4 2.4	- - -	- -	1000 900 700 600	5.5 4.8 3.4 3.3																				
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		- - 450 375 325		- - 1.6 0.9 0.9		- - 125 300 250		- - 1.8 1.3 1.3		- - 650 425 350		- - 2.2 1.6 1.6		- - - -		1500 1200 800 500 425		8.0 6.2 4.1 2.2 2.3		P-40L-1 ONLY, SAME AS P-40F SERIES.
P-40M-CU - I TO -10 INCL.	7500 8400 8800 9300 10000	- 2350 2550 3150 4000	1700 1850 1950 2000 -	81 85 85	1100 1200 1300 1350 -	1050 1300 1350 -	8400 8400 8400 8400 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 9300	NONE NONE NONE 700	327 232 157 157	650 450 325 300	2.5 1.8 1.1 1.1	- 750 475 1.8	- 2.9 1.8 1.8	1200 900 600	5.6 4.2 2.5	- -	- -	1150 1000 700	8.4 5.6 3.7																				

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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PAGE 29  
AS OF:  
DATE 21 JULY 1944

### TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

MODEL & BLOCK NO.	ENGINE & PROP.		SIZE	WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS			RADIO	REMARKS & REFERENCE	
	NUMBER	ENGIN MFRG. 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	EXTERNAL	MAX. LOAD LB.		TYPE
		SUPERCHARGER PROP. MFRG. TYPE	T-TAKE-OFF M-MILITARY C-CONTINUOUS	L-LENGTH L-HEIGHT T-TREAD W-WING AREA		C-COMBAT R-RECD LIM W-WAR MAX						NO. & SIZE OR STATION	NO. & SIZE OR CAPACITY			
P-40N-CU -1	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. F.	B 6400 C 7725 R 11000 W -	1	REAR - WING FUSELAGE DROPP. - BELLY 1 x 54 1 x 68 1 x 52, 75, 150 or 170 232 TOT.	4-.50	201 (average)	WING - FIXED	NONE	1-500 & * 2-100 or * 6- 20. 1-325 1-250 1-100	500	SCR-271A 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.	1	AS ABOVE	AS ABOVE	AS ABOVE	1	REAR - WING MOUNT - WING FUSELAGE DROPP. - BELLY DROPP. - WING (SEE REMARKS) 1 x 54 1 x 37 1 x 70 1 x 75, 150 or 2-225 * 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-271A or SCR-522A & SCR-695	REFERENCE AS ABOVE * PROVISIONS FOR 2-225 GAL. PERRYNG TANKS or 2-500 LB. or 2-100 LB. EXTERNAL WING BOMBS IN ADDITION TO 1-500 LB. BOMB IN PLACE OF BELLY TANK. SPACE ONLY FOR 6-20 LB. BOMBS.		
P-40N-CU -20 THRU -30	1	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	SCR-271A or SCR-522A & SCR-695 MS-26 or SCR-695	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	* 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		

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 FT. DIST.		LANDING SPEED MPH	GROUND-RUN		STD. ALT. FT.	MIL. POWER HIGH SPEED MPH	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 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.	AT 10000 FT.	AT 25000 FT.	RANGE MILES	ENDUR. HOURS	RANGE MILES		ENDUR. HOURS	RANGE MILES
P-40N-CU -1	7000 7725 8250 8425 8850	- 2150 2950 3100 3500	1650 1750 1750 1850 -	92 96 105 -	1000 1350 1700 1800 1950	7725	25000 20000 15000 10000 5000	332 346 348 331 313	1225 1850 2100 2525 2125	313 330 333 315 297	12.4 9.1 6.7 4.1 2.1	8850 8250 7725 8225	NONE NONE NONE 500	232 197 122 210	600 380 230 210	2.2 1.5 0.9 0.9	- 500 290 260	1.2 2.1 1.2 1.2	1050 750 430 420	4.9 3.6 1.9 2.0	- - - -	1850 850 520 480	7.4 3.8 2.8 2.5				
P-40N-CU -5 TO -15 INCL.	7000 8400 8900 9100 9500 11400	- 2700 3550 3800 4450 5700	1550 1850 1850 1900 -	92 100 109 -	1000 1650 2050 1250 -	8400	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	4.9 2.6 1.8 1.2 1.2	- - 600 400 370	2.5 4.3 1.6 1.6	930 600 600 590	4.3 2.6 2.6 2.8	- - -	2800 1550 1080 750 -	15.7 8.4 5.7 3.9 -	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	AS ABOVE	AS ABOVE																NO RANGE DATA AVAILABLE.	
P-40N-CU -35, -40		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:

RED FIGURES ARE 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																
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PAGE 30 AS OF DATE 21 JULY 1944																
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 W-TREAD W-WING AREA		B-BASIC C-COMBAT R-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	
RP-47C-RE -1 TO -3 P-47D RE & RA -1 TO -21 P-47G-CU -1 TO -16	1	PRATT-WHITNEY R-2800-21, 59, -63 TURBO CURTISS 12'2" DIA. - 4 BL. CONST. SPD. ELECTR.	T 2000/5 L M 2000/27000 W 2300/27000 C 1625/29000	S 40'9" L 36'1" H 11'2" W 15'6" W 300 SQ. FT.	B 10700 C 13500 R 15000	1	MAIN - FUS. AUX. - FUS. DRUP. BELLY EXT. - WINGS & BELLY (SEE F)	1x205 1x100 1x 75 or 110 or 200 or .50 2x150 & 1x 75 680 TOT.	6) 267 NCR. 8) 425 MAX.	WING - FIXED	NONE	b 2-1000 b 3- 500 b 3- 250 b 3- 100	2500	SCR-27LM SCR-522A SCR-535A SCR-695	TECHNICAL ORDER OI-2500-1 (REV. 30 NOV. 43) P-47D-15 & SUBSEQUENT *P-47D-6 thru -11 & P-47D-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. DRIPPABLE BELLY TANK. ‡ THE R-2800-21 ENGINE WILL HAVE WAR EMERGENCY RATING RED. WATER INJECTION IS INSTALLED & REOPERATED (-65). § D-10 & SUBSEQUENT ORIGINAL ALTY. SAME AS BELOW.	
P-47D-RE -22	1	PRATT-WHITNEY R-2800-59 TURBO HAMILTON STD. 13'0" DIA. - 4 BL. CONST. SPD. HYDRO.	T 2000/5 L M 2000/33000 W 2300/31000 C 1625/30000	AS ABOVE	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 13'0" DIA. - 4 BL. CONST. SPD. ELECTR.	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	REFERENCE AS ABOVE * FIRST MODEL EQUIPPED WITH BUBBLE CANOPY.
P-47D-RE -25	1	PRATT-WHITNEY R-2800-59 TURBO HAMILTON STD. 13'0" DIA. - 4 BL. CONST. SPD. HYDRO.	AS ABOVE	AS ABOVE	AS ABOVE	1	MAIN - FUS. AUX. - FUS. DRUP. BELLY EXT. - WINGS & BELLY	1x270 1x100 1x 75 or 1x110. 2x150 & 1x110 780 TOT.	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	REFERENCE AS ABOVE
P-47D-RA -26	1	PRATT-WHITNEY R-2800-59 TURBO CURTISS 13'0" DIA. - 4 BL. CONST. SPD. ELECTR.	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	REFERENCE 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							
	TO CLEAR 50 FT.		GROUND-RUN		STD. ALT.	WAR EMERG. HIGH SPEED	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.			FT.	CLIMB FT/MIN	CLIMB M.P.H.	CLIMB FT/MIN				CLIMB M.P.H.	TIME TO CLIMB MIN.	RANGE MILES	ENDUR. HOURS	RANGE MILES		ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS		
RP-47C-RE -1 TO -3 P-47D RE & RA -1 TO -21 P-47G-CU -1 TO -16	11000	-	2200	92	1800	30000	133	1375	420	364	800	20.0	16200	NONE	680	900	3.0	950	3.0	-	-	-	-	1725	8.3	NO RANGE WITH BOMBS AVAILABLE. PERFORMANCE VALUES SHOWN ARE WITHOUT EXTERNAL TANKS.
P-47D-RE -22	12500	3100	2500	100	2000	25000	121	1325	416	1750	375	15.0	15600	NONE	605	800	2.6	850	2.6	-	-	-	-	1525	7.3	
P-47D-RA -23	13500	3300	2600	104	2200	20000	106	2110	400	2050	365	11.0	14900	NONE	505	625	2.2	650	2.2	1100	4.3	1125	4.1	1400	5.4	
P-47D-RE -25	11000	3400	2800	106	2300	15000	90	2100	384	2200	350	7.2	14300	NONE	415	525	1.8	550	1.8	-	-	-	-	1035	4.9	
P-47D-RA -26	15000	3800	-	-	2600	10000	55	2750	352	2350	320	2.2	13500	NONE	305	325	1.3	400	1.3	650	2.5	650	2.5	825	3.8	

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


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

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)

(A) R-2800-52 (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)

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



**P-47 THUNDERBOLT**

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**TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART**

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AS OF:  
DATE 22 JULY 1944

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	EXTERNAL NO. & SIZE	MAX. LOAD LB.			
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.	T 1100/8 L M 1150/19000 C 1190/31000 1120/20500 940/34000	S 37' 0" L 32' 3" H 15' 8" T 11' 10" W 233 sq. ft.	B 7450 C 9200 R 12000	1	1	MAIN-R. WING MAIN-L. WING DROPP.-WINGS SEE (r)	1 x 92 1 x 92 2 x 75 2 x 150 569 TOT.	2) 2)	.50	280 350	OUTED.-WINGS INRD.-WINGS	NONE	2-500 2-325 2-250 2-100	1000	SCR-274M SCR-522 or SCR-535A or SCR-695	TECHNICAL ORDER 01-60JD-1. (20 DEC. 1943) KITS AVAILABLE FOR 1x85 GAL. FUSELAGE TANK; WHEN INSTALLED THESE MODELS WILL BE SAME AS ONES LISTED BELOW. WAR EMERGENCY RATINGS: 15000/17000' & 1295/28000' (RESTRICTED TO MODELS EQUIPPED WITH KLG-RC5/3 or LODGE RS5/5 SPARK PLUGS.)
P-51B-NA -7410 P-51C-NT -3	AS ABOVE	AS ABOVE	AS ABOVE	B 7450 C 9800 R 12000	1	1	MAIN-R. WING MAIN-L. WING FUSELAGE DROPP.-WINGS	1 x 92 1 x 92 1 x 85 2 x 75 2 x 150 569 TOT.	A S	A B O V E	A S	A B O V E	A S	A B O V E	AS ABOVE	SCR-522 or SCR-274M or MB-26C COMBINATIO	REFERENCE AS ABOVE NOTE: LAST 550 P-51B-5 MODELS BECAME B-7 UPON ADDITION OF 1x85 GAL. FUSELAGE TANK. P-51C-3 ARE MODIFIED P-51C-1's.
P-51B-NA -15 P-51C-NT -5A-10	PACKARD V-1650-7 2 SPEED-2 STAGE HAMILTON STD. 11"2" DIA. - 4 BL. CONST. SPD. HYDRO.	T 1100/8 L M 1650/13600 C 1390/27200 1230/17000 1100/29000	AS ABOVE	AS ABOVE	1	1	AS ABOVE SEE (r)	AS ABOVE	A S	A B O V E	A S	A B O V E	A S	A B O V E	AS ABOVE	SCR-522 or SCR-274M or MB-26C COMBINATIO	REFERENCE AS ABOVE WAR EMERGENCY RATINGS: 17900/11500' & 1530/21500' (RESTRICTED TO MODELS EQUIPPED WITH KLG-RC5/3 or LODGE RS5/5 SPARK PLUGS.) SOME P-51C-5-WT MODELS FOR RECONNAISSANCE WILL NOT CARRY 1x85 GAL. FUSELAGE TANK.
P-51D-NA -5 P-51D-NT -5	AS ABOVE	AS ABOVE	AS ABOVE	B 7635 C 10100 R 11800	1	1	MAIN-R. WING MAIN-L. WING FUSELAGE DROPP.-WINGS	1 x 92 1 x 92 1 x 85 2 x 75 149 TOT.	2) 2) 2)	.50	270 270 380	OUTED.-WINGS CENTER-WINGS INRD.-WINGS ALTERNATE INSTALLATION OUTED.-WINGS INRD.-WINGS	A S	A B O V E	AS ABOVE	SCR-522 or PARTIAL SCR-274M INSTALL.	TECHNICAL ORDER 01-60JE-1.

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' DIST.		LANDING SPEED MPH	GROUND-RUN DIST.		STD. ALT. FT.	WAR EMERG.		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						
		FT.	FT.		FT.	FT.		FT.	FT.	FT.	FT.	FT.	FT.				FT.	FT.	FT.	FT.	FT.	FT.		FT.	FT.	FT.	FT.
P-51B & C (V-1650-3)	8000 8500 9000 9500 10000 11000	- 2100 2200 2300 2500 3000	2000 2100 2200 2300 2500 3000	100 103 106 109 118 120	- 1300 1500 1650 1800 2100	1200 1300 1400 1500 -	9200	30000 25000 20000 15000 10000 5000	140 130 127 124 106 88	2000 2650 2700 3025 3380 3280	433 418 427 414 392 374	2000 2550 2650 3025 2900 2780	397 390 405 373 353 310	11.0 8.9 7.0 5.3 3.6 1.8	11200 10200 9200 9700 10200	NONE NONE NONE 500 1000	424 334 184 184 184	1275 850 475 450 425	4.4 3.0 1.6 1.6 1.6	1700 1050 550 700 500	4.7 3.2 1.7 1.7 1.7	1985 1350 750 700 675	7.6 5.5 2.8 2.8 2.8	- - - - -	2200 1150 850 800 775	10.0 7.1 3.9 3.8 3.7	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)	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	9200	30000 25000 20000 15000 10000 5000	135 126 124 114 117 95	1600 2300 3050 3125 3300 3200	435 428 414 414 416 395	1500 2300 2750 2700 3500	415 406 390 388 362 340	11.2 8.4 6.5 4.7 3.0 1.5	11200 10200 9200 9700 10200	NONE NONE NONE 500 1000	424 334 184 184 184	1280 870 475 460 440	4.3 2.9 1.5 1.6 1.6	1350 990 1600 710 680	4.1 2.7 1.4 1.3 1.4	2000 1310 710 750 680	6.0 5.4 2.7 2.7 2.8	- - 7.0 - -	2290 1160 835 825 770	10.4 6.9 3.8 3.9 3.6	AS ABOVE	
P-51B & C (V-1650-3) FUSELAGE TANK	8000 9000 10300 10800 11800	- 2200 2650 2900 3100	2000 2200 2350 2500 3100	100 106 111 118 120	- 1500 1750 1900 2050 2350	1200	9800	30000 25000 20000 15000 10000 5000	140 130 127 124 106 88	2000 2650 2700 3025 3380 3280	433 418 427 414 392 374	2000 2550 2650 3025 2900 2780	397 390 405 373 353 310	12.1 9.6 7.4 5.6 3.8 1.3	11800 10800 9800 10300 10800	NONE NONE NONE 500 1000	569 419 269 269 269	1500 1075 750 700 675	5.3 3.8 2.6 2.4 2.4	1875 1325 875 850 825	5.7 4.2 2.6 2.6 2.6	2275 1525 1125 1075 1025	9.0 6.5 4.3 4.2 4.1	- - - - -	2600 1800 1275 1225 1175	11.8 8.3 5.9 5.8 5.4	AS ABOVE
P-51B & C (V-1650-7) FUSELAGE TANK	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	9800	30000 25000 20000 15000 10000 5000	135 126 124 114 117 95	1625 2325 3075 3125 3300 3250	435 428 414 414 416 395	1500 2100 2575 2450 3075 3275	406 390 388 362 340	9.0 6.9 4.9 3.1 1.6	11800 10800 9800 10300 10800	NONE NONE NONE 500 1000	569 419 269 269 269	1150 1050 720 685 650	5.1 3.7 2.5 2.3 2.3	1550 1125 765 725 700	4.8 3.5 2.2 2.2 2.2	2275 1675 1140 1050 1000	9.1 6.8 4.3 4.1 4.0	- - 1065 - -	2600 1850 1250 1225 1175	12.0 8.7 5.7 5.7 5.6	AS ABOVE	
P-51D (V-1650-7) FUSELAGE TANK	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	10100	30000 25000 20000 15000 10000 5000	133 124 124 113 116 94	1500 2675 2775 2900 3100	433 418 412 413 415 381	1500 2100 2625 2300 2925 3100	413 404 388 387 360 340	12.0 9.5 7.3 5.2 3.5 1.7	11100 10100 10600 11100	NONE NONE 500 1000	419 269 269 269	1050 720 685 650	3.7 2.3 2.3 2.3	1125 765 725 700	3.5 2.2 2.2 2.2	1675 1140 1050 1000	6.8 4.3 4.1 4.0	- - 1065 -	1850 1250 1225 1175	8.7 5.7 5.7 5.6	NOTE: HIGH SPEED AND CLIMB SHOWN WITHOUT RACKS. NEW TYPE BOMB 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.

P-51  
"MUSTANG"

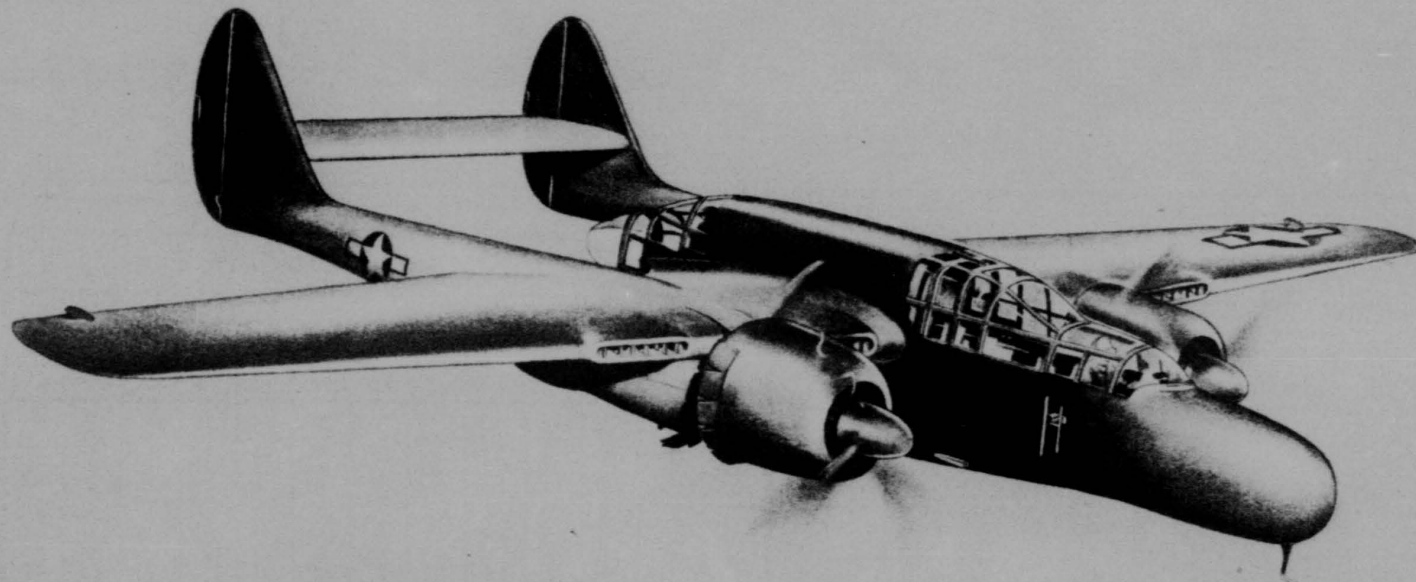
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*NORTHROP P-61A*

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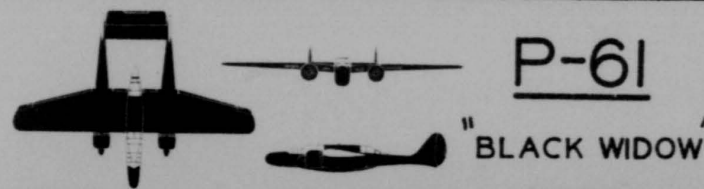
TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.		FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE	
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT. T-TAKE-OFF C-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT R-RECD LIM W-WAR MAX	COMBAT CREW	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-61A-NO -1 & -5	2	PRATT-WHITNEY R-2800-10 2 SPD.-2 STD. CURTISS 12"2" DIA. 4 BL. P.F., ELECTRIC	T 2000/2000 (2000/1900) M 1800/15600 (1550/20900) C 1675/8100 1625/17800 1550/22700	S 66' L 12'11" H 11' 2" T 17' 2" W 561 sq. ft.	B 29500 C 29000 R - W -	2	INTD.-WING OUTD.-WING 2 x 115 2 x 200 530 Tot.	4-20mm 4- .50a	200	FORE- FUSELAGE UPPER TURRET	N	O	N	E	SCR-502 SCR-695 SCR-720 SCR-729 DETR-4136 APT - 1 RC - 36	a - ON 1st 37 P-61A-1's ONLY. b - CREW OF 3 FOR MODELS WITH TOP TURRET. c - WATER INJECTION AND WAR EMERGENCY ON P-61A-5 AND SUBSEQUENT. EXACT RATINGS UNDETERMINED.
P-61A-NO -10 & -11	2	PRATT-WHITNEY R-2800-65 2 SPD.-2 STD. CURTISS 12"2" DIA. 4 BL. P.F., ELECTRIC	T AS ABOVE M AS ABOVE C AS ABOVE	S L H T W AS ABOVE	B C R W AS ABOVE	2	INTD.-WING OUTD.-WING EXT.-WING (f) 2 x 115 2 x 200 2 x 165 960 Tot.	4-20mm	200	FORE-FUSELAGE	N	O	N	E	AS ABOVE	(f) EXTERNAL FUEL TANKS ON P-61A-11 ONLY.
			T M C	S L H T W	B C R W											
			T M C	S L H T W	B C R W											
			T M C	S L H T W	B C R W											
			T M C	S L H T W	B C R W											

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				
	TO CLEAR 50'		LANDING SPEED	GROUND-RUN		STD. ALT.	WAR EMERG.		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	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.
P-61A-NO -1 & -5	25000	2250	1950	1350	1350	25000	353	353	300	340	11.0	25000	NONE	630	350	1.2	585	1.4	600	3.5	580	4.4	1000	4.5			
	27000	2100	2100	1500	1150	20000	364	357	1700	317	9.5																
	28000	1900	2150	1600	1500	15000	363	354	1900	339	8.7																
	29000	2700	-	1750	-	10000	361	338	2150	380	8.3																
						5000	360	338	2250	389	8.1																
						2.4	360	338	2250	389	8.1																
P-61A-NO -10 & -11	A	S	A	B	O	V	S	A	S	A	B	O	V	S	A	S	A	B	O	V	S	A	S	A	B	O	V
												32500	NONE	960	530	1.3	595	1.4	600	3.5	590	4.4	2000	4.8			
												29000	NONE	630	350	1.2	585	1.4	600	3.5	580	4.4	1000	4.5			

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 46 47

NOTES:

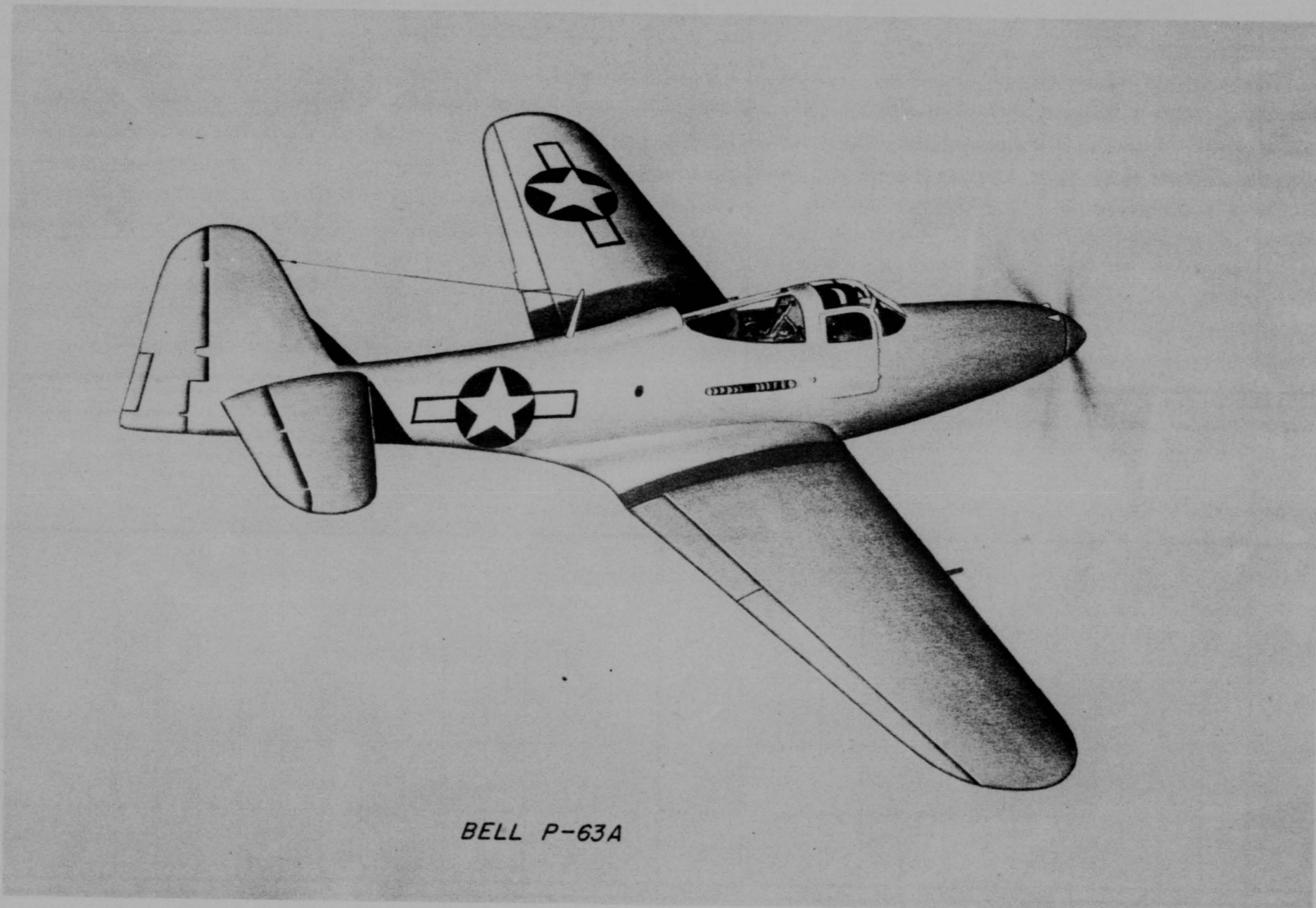


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**TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART**

PAGE 37  
AS OF  
DATE 21 JULY 1944

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 C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT H-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
P-63A-BE -1 TO -7 INCL	ALLISON V-1710-93 2 STAGE AERO PRODUCTS 11'7" DIA. - 4 BL. CONST. SPD., HYDRO.	T 1325/8 L M 1150/21200 W 1500/8 L C 1000/20000	S 30' L L 32'8" H 12'5" T 11'7" W 24'8 3/4"	B 6925 C 8350 A 8900	1	MAIN - WINGS 2 x 68 DRIP. - BELLY 1 x 64 (24) or 1 x 75 (24) DRIP. - WINGS 2 x 75 (SEE F) 161 TOT	2 x 68 1 x 64 (24) or 1 x 75 (24) 2 x 75	1-37mm 30 2-50 250 2-50 200	PROP. - TYPE ML WING - FIXED NONE - FIXED	NONE	1-500 1-325 1-250 1-100	500	SCR-27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 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569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 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969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000	TECHNICAL ORDER 01-110FF-1. (20 JULY 1943) 2-1x64 GAL. SELF SEALING DROPPABLE BELL TANK AND 2x75 GAL. DROPPABLE WING TANKS ACCORD TO P-63A-6. SEE WAR EMERGENCY RATING.			
P-63A-BE -8-9	ALLISON V-1710-93 2 STAGE AERO PRODUCTS 11'0" DIA. - 4 BL. CONST. SPD., HYDRO.	T AS ABOVE M AS ABOVE C	S AS ABOVE L AS ABOVE H AS ABOVE T AS ABOVE W AS ABOVE	B AS ABOVE C AS ABOVE A AS ABOVE	1	A S A B O V E	A S A B O V E	1-37mm 30 2-50 250 2-50 200	PROP. - TYPE ML WING - FIXED NONE - FIXED	NONE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	* TYPE M23 GUN ON -9.		

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														
	TO CLEAR 50'		GROUND-RUN		WEIGHT	STD. ALT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT	BOMBS CARGO PASS.	TOTAL FUEL U.S. GAL.	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	RANGE				ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.	RANGE
LB.	FT.	FT.	MPH	FT.	FT.	MPH	FT/MIN	MPH	FT/MIN	MIN	MIN	MIN	MIN	HOURS	MIN	HOURS	MIN	HOURS	MIN	HOURS			
P-63A-BE -1 TO -7 INCL. [MILITARY POW.]	7700 8300 8700 9500 10500	1700 2110 2520 2900 4500	1800 - - - -	1070 1320 1520 2000 3100	1140 - - - -	8350	3000 25000 20000 15000 10000 5000	392 401 398 372 375 356	1680 2380 3030 3540 3690 3575	350 365 370 395 395 320	10.1 7.5 5.7 4.2 2.8 1.4	10550 9500 8850 8350 8850	NONE NONE NONE NONE 500	461 311 211 136 136	350 500 100 350 350	1.3 2.1 1.8 1.5 1.3	350 600 425 350 420	1.5 2.1 1.3 1.5 1.5	590 700 590 420 420	2.1 3.2 2.1 2.1 2.0	3050 1400 950 700 600	13.3 7.5 4.8 3.2 3.0	PERFORMANCE VALUES WITHOUT EXTERNAL TANKS.
P-63A-BE -1 TO -7 INCL. [WAR EMERG.]	A S	A B O V E			8350	3000 25000 20000 15000 10000 5000	392 401 398 372 375 356	1680 2380 3030 3540 3690 3575	350 365 370 395 395 320	AS ABOVE	AS ABOVE	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 S A B O V E		
P-63A-BE -8-9 [MILITARY POW.]	A S	A B O V E			8350	3000 25000 20000 15000 10000 5000	392 401 398 372 375 356	1680 2380 3030 3540 3690 3575	350 365 370 395 395 320	AS ABOVE	AS ABOVE	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 S A B O V E		
P-63A-BE -8-9 [WAR EMERG.]	A S	A B O V E			8350	3000 25000 20000 15000 10000 5000	392 401 398 372 375 356	1680 2380 3030 3540 3690 3575	350 365 370 395 395 320	AS ABOVE	AS ABOVE	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 S A B O V E		

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 15 MINUTES.

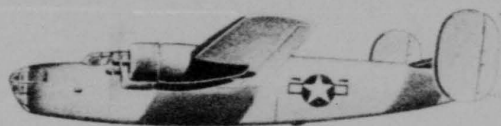


**P-63**  
"KINGCOBRA"

MANUFACTURED BY BELL (Buffalo) "BE"

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**GLIDER AND  
TOWPLANE SECTION  
1-AUGUST-1944**

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FOREWORDWARNING

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 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.

DEFINITIONSLOADING:

TYPICAL LOADINGS OF GLIDER AND TOWPLANE FOR TACTICAL MISSIONS.

Note:

Weight and fuel quantities shown apply to all performance values to the right on the same line.

MAX. TOW SPEED:

MAX. 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.

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 engines.

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 & GLIDER TACTICAL PLANNING PERFORMANCE CHART

AS OF: 26 JULY 1944

## BOMBER TOWPLANE AND CG-4A GLIDER

TOWPLANE & GLIDER COMBINATION	LOADING						TAKE OFF (WITH GLIDER ATTACHED) SL-HARD SURFACE-NO WIND			CLIMB (AT MINIMUM TOW SPEED)				RANGE & ENDURANCE (AT CRUISING POWER) STATUTE AIR MILES-NO WIND-NO RESERVE						REMARKS
	GLIDERS		TOWPLANE				TO CLEAR 50' OBJ. DISTANCE (FT.)	TAKE OFF SPEED (MPH)	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 (MPH)								RADIUS	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)	
B-17F & (1) CG-4A	7500	3800	59100	NONE	2780	150	6150	110	4150	135	300	12000*	37	(990	7.2	6.8	5000	1380	10.5	* LIMITED- NO OXYGEN IN GLIDER
														(980	6.8	6.3	10000	1370	9.6	
B-17F & (2) CG-4A	7500	3800	52500	NONE	1700	150	6000	110	4100	135	300	11000	57	510	3.8	3.5	5000	720	5.5	
	7500	3800	59100	NONE	2780	150	6950	110	4700	135	240	8000	44	860	6.6	6.2	5000	1140	8.8	
B-24D & (1) CG-4A	7500	3800	52500	NONE	2344	150	4225	115	3475	140	530	12000*	24	(870	6.3	5.3	5000	1360	9.7	* LIMITED- NO OXYGEN IN GLIDER
	7500	3800	59000	6000	2344	150	5075	115	4125	140	325	12000*	41	(830	5.6	4.4	10000	1280	8.6	
B-25C & (1) CG-4A	7500	3800	30000	2000	972	150	5075	120	4175	140	390	12000*	38	540	3.8	3.4	5000	700	4.9	* LIMITED- NO OXYGEN IN GLIDER

**NOTES:**

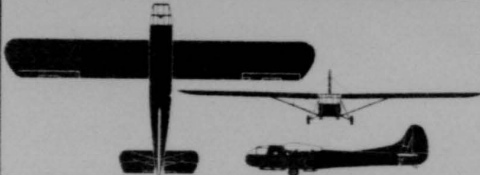
- (1) REFERENCE MATERIAL FROM TECHNICAL ORDER 01-1-143 dated 1 DEC. 1943.
- (2) ALL PERFORMANCE SHOWN WITH GLIDER TRAINING GEAR ATTACHED.

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

TEMPORARY TOW RELEASE MECHANISM ON B-17F CAN BE INSTALLED QUICKLY WITH NO STRUCTURAL MODIFICATIONS REQUIRED.

TOW PLANE PERFORMANCE WITH CG-4A TO BE SAME AS WITH CG-1A.

**GLIDER CHARACTERISTICS**

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

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# TOWPLANE & GLIDER TACTICAL PLANNING PERFORMANCE CHART

PAGE 13  
AS OF:  
22 JULY 1944

## 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 (AT CRUISING POWER) 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 (M.P.H.)	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 (MI.)									TIME OUT (HRS)	TIME BACK (HRS)	RANGE (MI.)		ENDUR. (HRS)		
C-46A & (1)CG-4A	7500	3800	45000	3000	1400	150	5150	95	3500	125	275	10000	17	650	5.3	3.8	5000	950	7.8	BETTER PERFORMANCE EXPECTED UPON FURTHER FLIGHT TESTING.	
C-46A & (2)CG-4A	7500	3800	45000	3000	1400	150	8500	95	5650	120	100	3000	30	410	3.6	2.7	1000	530	4.7	A S A B O V E	
C-47, 47A & 53 (STD. BLADE PROPS) & (1)CG-4A	7500	3800	26000	3000	804	150	4425	90	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	8.0	*LIMITED- NO OXYGEN IN GLIDER.	
	7500	3800	29000	6000	804	150	5100	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	3.2	5000	820	6.9		
C-47, 47A & 53 (PADDLE BLADE PROPS) & (1)CG-4A	7500	3800	26000	3000	804	150	4800	80	3200	105	465	11800	35	585	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	21200	1200	804	150	6200	80	3525	105	220	7800	46	450	4.0	3.0	2000	665	5.8	* TO 3000 FT. ALTITUDE.	
	7500	3800	26000	3000	804	150	6900	80	3250	105	180	7500	50	435	3.8	2.9	2000	630	5.5		
	7500	3800	29000	6000	804	150	7350	85	4450	105	125	8000	57	395	3.7	3.3	2000	520	4.5		
	7500	3800	31000	8000	804	150	8850	90	5550	105	80	-	38*	370	3.4	3.1	1000	470	4.4		
C-60A & (1)CG-4A	7500	3800	18500	NONE	644	150	4000	85	2750	120	550	10000*	37	580	4.7	4.0	5000	940	7.9	*LIMITED - NO OXYGEN IN GLIDER.	
	7500	3800	21500	3000	644	150	5425	85	3675	120	320	11500	48	410	3.4	2.8	5000	560	4.7		
C-60A & (2)CG-4A	4700	1000	18500	NONE	644	150	6200	85	4100	120	250	8000	40	360	2.8	2.5	5000	540	4.6		
	7500	3800	18500	NONE	644	150	7000	85	4500	120	200	7300	41	330	2.9	2.4	5000	475	4.0		

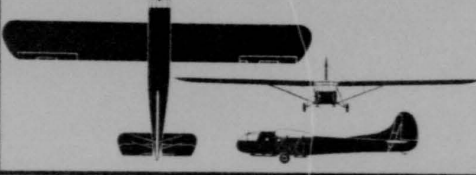
**NOTES:**

- (1) REFERENCE MATERIAL FROM TECHNICAL ORDER 01-1-143 dated 1 DEC. 1943.
- (2) ALL PERFORMANCE SHOWN WITH GLIDER TRAINING GEAR ATTACHED.

ALL FIGURES ARE PRELIMINARY. SUBJECT TO REVISION AFTER FLIGHT CHECK.

TOW PLANE PERFORMANCE WITH CG-4A TO BE SAME AS WITH CG-1A

**GLIDER CHARACTERISTICS**

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

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